



City of Vancouver **Vision Zero** **Safe Mobility Plan**



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A. EXECUTIVE SUMMARY

Transportation safety is a top priority for all levels of government.

This plan reaffirms the City's commitment to Vision Zero, with an ultimate goal to eliminate all traffic fatalities and serious injuries from our transportation network. It also sets a specific municipal target in alignment with the regional target set by TransLink in 2022 to “reduce traffic fatalities and serious injuries by at least 5% annually until we reach zero before 2050.”

The plan includes both high-level strategies and near-term actions:

- The **high-level strategies** include detailed descriptions and are framed around the Vision Zero *Safe Systems* approach. They complement and build on existing local, regional, and provincial transportation safety policies—including the City of Vancouver's [Transportation 2040 Plan](#)¹ (2012), TransLink's [Transport 2050 Plan \(safety chapter\)](#)² (2022) and the Province's [BC Road Safety Strategy 2025](#)³ (2024)—and are further informed by international best practices and recent Council directions related to safety.

Together, the strategies provide a comprehensive framework to guide the City's transportation safety efforts in the years ahead. The framework will be used in an ongoing basis to help prioritize future projects and programs, inform related budget conversations, and support partner-led initiatives.

- The **near-term actions** highlight upcoming work for meaningful short-term progress over the next five years. Given that safety is embedded as a core value throughout the City's transportation policies and projects, they are not intended to be a comprehensive list of all safety-related work. Some actions fall within existing budgeted programs and projects, while others depend on future funding. As they reflect a shorter timeframe, they will be revisited on a more frequent basis (at least every 2 years) to ensure accountability and guide near-term work plans.

Specific programs and interventions will continue to be prioritized using a data-informed approach, considering fatality and serious injury analysis, and taking proactive measures whenever possible. The work is also centred on equity, recognizing that some people—for example vulnerable road users such as people walking and cycling, and older persons who tend to be more fragile—suffer disproportionately when crashes occur.

Vision Zero is a significant departure from status quo transportation system management. Rather than focus on individual responsibility and reactive measures, Vision Zero takes a proactive *Safe Systems* approach that considers how the people who design, build, and manage the transportation network can prioritize the health and safety of people using the system. It emphasizes shared responsibility, system-level design and injury prevention, treating fatalities and serious injuries as preventable public health issues rather than an inevitable cost of mobility. It recognizes that people make mistakes, but that we can design our transportation system in a way that these mistakes do not end in death or severe injury.

While the City plays a key role in improving transportation safety, achieving Vision Zero requires everyone to work together. We are grateful to our partners and look forward to continued collaboration to make Vancouver's streets safer for everyone.

B. SETTING THE STAGE

Road safety in City, regional and provincial plans

Transportation safety is a top priority for the City of Vancouver. It is a foundational principle of the City's Transportation 2040 Plan¹ (2012), and is woven throughout our transportation goals, policies, programs, and actions. The plan commits us to [Vision Zero](#)⁴, with a goal to **eliminate traffic fatalities and serious injuries**. We recognize that traffic deaths are preventable, and that improving safety requires a systems approach where we work together across disciplines and jurisdictions.

The region [through TransLink's [Transport 2050 Plan](#)² (2022)] and Province [through the [BC Road Safety Strategy 2025](#)³ (2024)] have also committed to Vision Zero. They have set specific targets to move towards this goal:

- a) at the regional level, reduce serious injuries and fatalities 5% per year until we reach zero by or before 2050;
- b) at the provincial level, continuously trend downward the number of fatalities and serious injuries (rate-based, per 100,000 population); and
- c) at the provincial level, support the global goal set by the [Stockholm Declaration](#)⁵ (2020) on road safety to reduce road traffic deaths and injuries by 50% by 2030.

Our Vision Zero Target

No level of fatalities is acceptable.

This plan reaffirms the City's Vision Zero commitment to eliminate all traffic-related fatalities and serious injuries from our transportation network. It also commits us to match the regional target: to reduce fatalities and serious injuries by at least 5% per year, to reach zero by 2050.

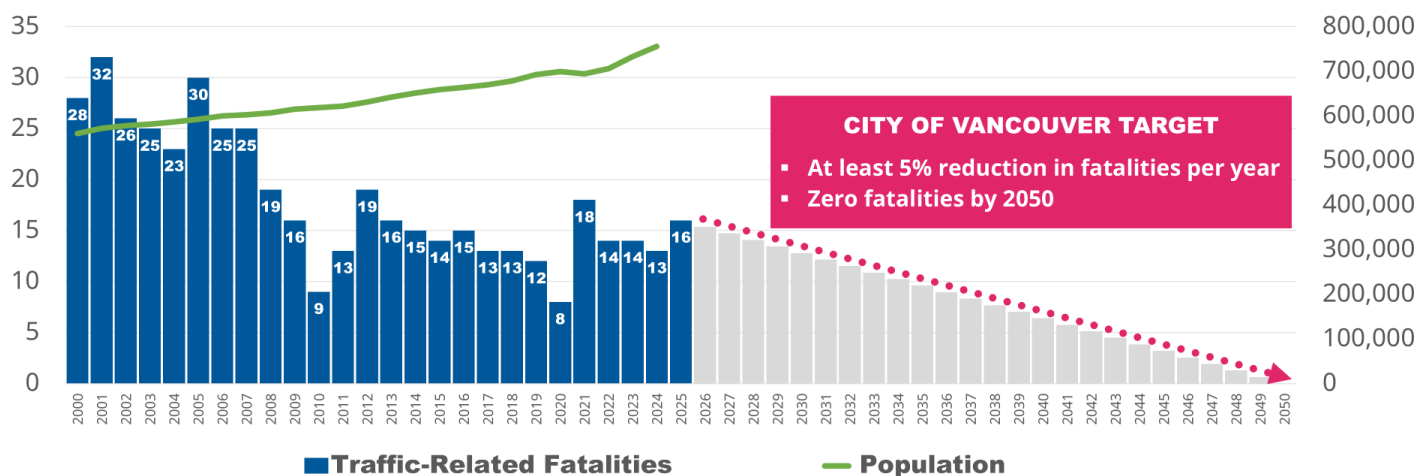


Figure 1. This plan sets a specific Vision Zero safety target for the City of Vancouver: to reduce fatalities and serious injuries by at least 5% per year, to reach zero by or before 2050. Serious injuries will be tracked in a similar manner as data sources become more reliable.⁶

What is Vision Zero?

Vision Zero is an international approach to eliminate traffic fatalities and severe injuries from our transportation system, while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, it has since been adopted by hundreds of jurisdictions across the globe, including the City of Vancouver in 2012.

Unlike traditional approaches to road safety that often focus on individual responsibility and reactive measures, Vision Zero takes a proactive *Safe Systems* approach that considers how the people who design, build, and manage the transportation network can prioritize the lives and health of people using the system. It emphasizes shared responsibility, system-level design and injury prevention, treating fatalities and serious injuries as preventable public health issues rather than an inevitable cost of mobility. It recognizes that people make mistakes, but that we can design our transportation system in a way that these mistakes do not end in death or severe injury.

Vision Zero Core Principles

Six principles underpin the Vision Zero Safe Systems approach:

- 1. Death and serious injuries are unacceptable.**
We must reject bodily harm as an inevitable cost of getting around and consider crash severity when prioritizing our efforts. While some crashes may be unavoidable, death and serious injuries can be prevented.
- 2. People make mistakes.**
We must expect and anticipate human error when designing and operating our transportation system.
- 3. Human bodies are fragile.**
Our bones and soft tissue are not designed to withstand crash forces, particularly with large objects at high speeds.
- 4. Responsibility is shared.**
We must work together to improve transportation safety, including those who design, build, regulate and manage our streets and vehicles, who write and enforce our traffic laws, who use our transportation system, and who provide post-crash care.
- 5. Safety is proactive.**
We must identify and mitigate risks in our transportation system, preventing serious crashes before they happen.
- 6. Redundancy is crucial.**
We must embrace a systems approach with multiple components working together way to reduce harm. If one part fails, the other parts still protect people.

Vision Zero Safe System Elements

The *Safe Systems* approach anticipates human mistakes. The idea is to keep the risk of mistakes low so that crashes are less likely, and when they do occur the impact on the human body doesn't cause serious injury or death.

Five interconnected elements are central to the *Safe Systems* approach:

1. **Safe speeds** are fundamental to reducing the number and severity of crashes. Lower speeds reduce the likelihood of collisions by giving people more time and space to react. When collisions do occur, they are less severe, since impact forces are significantly reduced. Other benefits include improved travel time reliability from fewer crash delays, quieter streets and reduced air pollution.
2. **Safe streets** consider all people who use the streets and naturally encourage safe behaviour. They are designed to be forgiving of mistakes and human frailty. The City has significant control over how streets are designed, built, and managed.
3. **Safe people** using the road are alert, unimpaired, and comply with road rules. They take steps to improve their safety and the safety of others. Education and promotion can help build a culture shift towards safety, and laws and enforcement practices can discourage dangerous behaviour.
4. **Safe vehicles** are designed and maintained to prevent crashes and protect all road users, including occupants as well as people outside the vehicles themselves. Vehicle size, weight and features all significantly impact overall safety.
5. **Post-crash response** is about timely emergency response and quality treatment after a crash. For partners, it also means investigating when fatalities occur—responding with engineering, enforcement, and/or education interventions when appropriate—and collecting and analyzing data to help prioritize safety interventions.

Together these elements act as layers of redundancy to prevent crashes and create a safe transportation system.



Figure 2. Five elements of the Vision Zero Safe Systems approach

Vision Zero Hierarchy of Controls

The [Hierarchy of Controls](#) is a standardized five-level framework used to minimize or eliminate exposure to workplace hazards, ranked from most to least effective. It was originally developed by the National Institute for Occupational Safety and Health (NIOSH).⁷

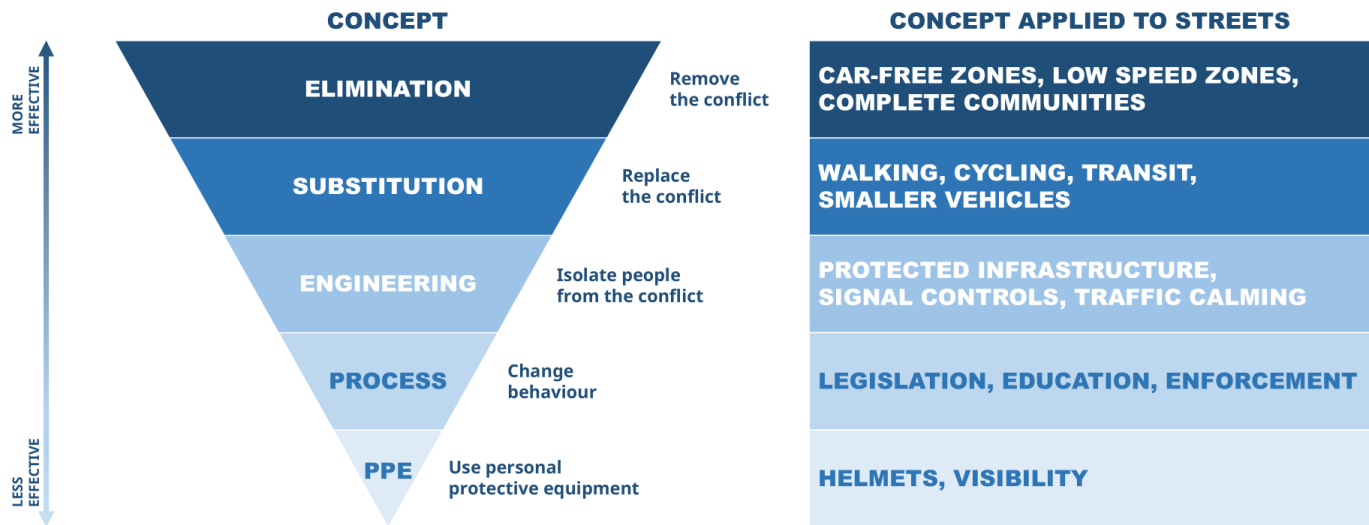


Figure 3. Hierarchy of Controls applied to transportation safety based on [@QAGreenways](#) (X user) adaptation of [NIOSH graphic](#).

Applied to transportation safety, the hierarchy of controls recognizes that motor vehicles are involved in the overwhelming majority of traffic fatalities and serious injuries. Accordingly, reducing motor vehicle traffic—especially higher speed traffic and larger, heavier vehicles—is the most effective way to achieve Vision Zero. This can be done in a number of ways, including creating car-free and car-light streets, building complete communities that reduce the need to drive, and making it easier for more people to choose active transportation and transit. Moving down the hierarchy, street design and engineering can be used to mitigate danger from motor vehicles, by physically protecting vulnerable modes on busy streets with higher motor vehicle speeds and/or volumes, and by implementing traffic calming on local streets to reduce speeding and short-cutting. Education and enforcement are important to further build a culture of safe behaviour and reduce dangerous behaviour, and protective equipment is a final element to reduce injuries for the crashes that still occur.

The high cost of transport injuries

Locally and around the world, motor vehicle crashes are a leading cause of unintentional injury and death. Between 2015 and 2024, over 130 people died on City of Vancouver streets, and more than 90,000 people were injured in crashes.⁸

Crashes put enormous pressure on emergency room departments and other areas of the health care delivery system. Province-wide, the direct healthcare costs for transport injuries in 2019 were estimated at \$526.7 million, or about \$1.44 million per day.³ Other costs include emergency response and legal costs, economic impacts from lost productivity and travel delay, and immeasurable costs of human suffering.

The full cost is impossible to calculate. Every crash that results in death or injury affects our communities and impact's somebody's loved one.

Focus on equity

Safe mobility is a basic right, and Vision Zero is based on the premise that all people have the right to travel safely. However, collision data shows that some people suffer disproportionately on our roads. This requires us to embody the concept of equity into the work that we do. We use data-driven and evidence-led approaches to identify user groups, communities and populations that are disproportionately impacted by traffic deaths and serious injuries, and prioritize road safety investments in these areas.

Particular areas of focus include:

- people using less-protected modes of transportation, such as those walking, cycling, or using mobility aids, who are more vulnerable since they lack the protective shell of a motor vehicle; and
- at-risk groups who are more fragile and/or have higher rates of death or serious injury relative to the general population, including youth, older persons and elders, people with mobility challenges, and low-income populations.

Less-protected modes of transportation

Creating an equitable transportation system that is safe for everyone requires placing a high priority on vulnerable road users. People who aren't protected by the shell of a motor vehicle—such as those walking, cycling, or using mobility devices such as electric wheelchairs or scooters—are much more likely to be injured or killed in a collision, particularly when high speeds are involved.

In Vancouver, people walking and cycling are involved in only about 4% of collisions, but account for over half of serious injuries, and over 70% of fatalities (*Figure 4*).

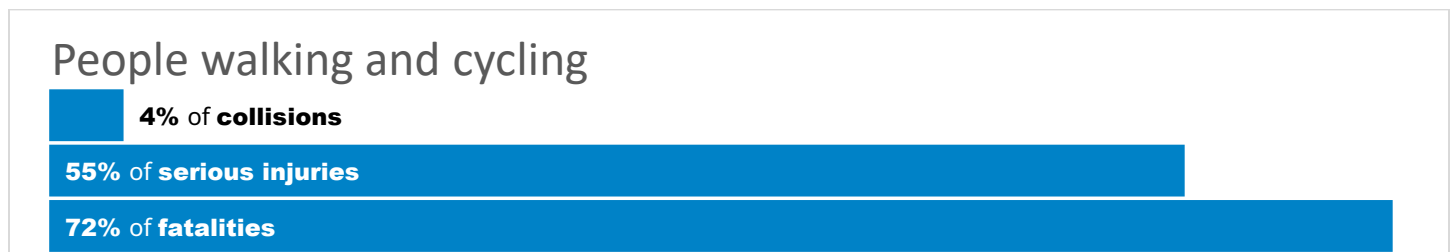


Figure 4. People walking and cycling are involved in only 4% of collisions, but over half of serious injuries, and over 70% of fatalities.⁹

Disproportionately-impacted populations

Equity is also factored into transportation safety work by considering areas with more disproportionately-impacted community groups.

Children are especially vulnerable to traffic danger for a variety of reasons. They tend to be more impulsive, have shorter attention spans and may lack a sense of vulnerability, resulting in riskier behaviour. They have less worldly experience and their senses are still developing, making it harder to make safe, independent judgments regarding traffic. Small stature also plays a role, since it is harder to see (or be seen) over obstacles like parked cars. Children go to and from school during busy commute times when traffic is at its worst, and often face additional traffic exposure due to caregivers picking up and dropping off students in motor vehicles.

Older persons and elders require special attention as well, given much higher rates of serious injury and death relative to their share of Vancouver's population (see *Figure 5*). There are a variety of reasons for this. As people age, physical and cognitive changes such as slower walking speeds and reaction time, loss of strength and flexibility, reduced visual acuity (especially at night) and hearing loss increase the likelihood of getting involved in a crash or collision. When incidents do occur, the consequences tend to be more severe due to increased frailty.

Mobility is closely linked to a person's ability to live independently and stay engaged in community, social, and family life. Safe transportation enables access to medical care, essential shopping, and social interaction, reducing loneliness and depression. For many elder individuals, driving cessation (giving up the keys) is a difficult, emotional transition often triggered by safety concerns. Ensuring safe alternative options, including safe, accessible walking environments with places to rest along the way, all ages and abilities active travel networks, and accessible, convenient transit is crucial to prevent isolation and support a continued high quality of life.

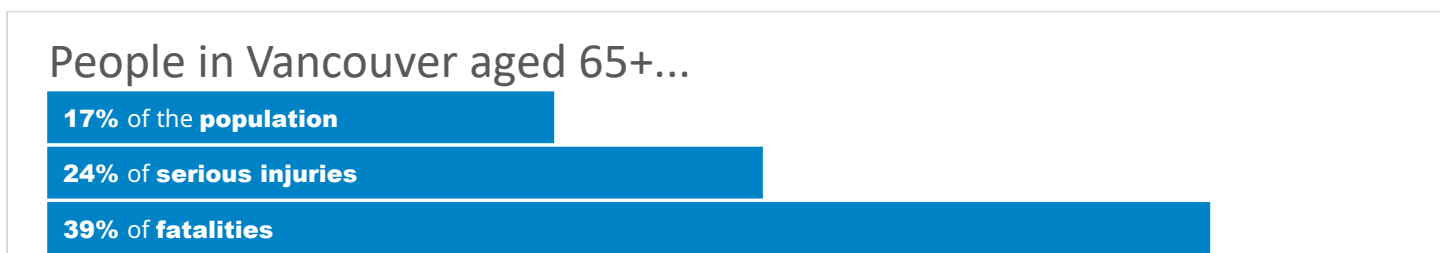


Figure 5. People 65 or older are more than twice as likely to be killed in traffic relative to the city population...¹⁰

Certain areas within the city warrant special attention, particularly neighbourhoods like the Downtown Eastside, which includes the highest pedestrian collision locations in the entire province. There are a variety of complex factors at play, in particular a high concentration of individuals who may be under distress or the influence of substances that affect behaviour. Where possible, street design should encourage slow speeds, giving drivers and other road users time and space to respond to unpredictable behaviour, while ensuring emergency services have timely access to address crises when they arise.

By making our streets and pathways safe for our most vulnerable—including people walking, rolling and cycling, as well as small children and elders—we can ensure a transportation system that is safe for everyone.

A data-informed approach to safety

Data collection and analysis are critical to understand trends and track progress toward goals, identify emerging safety-related issues, and prioritize intersections, corridors, or entire neighbourhoods for specific safety-related programs or more detailed assessment. Data analysis helps identify what is happening and why, enabling development of more effective safety strategies and appropriate cost-effective, site-specific interventions. Locations can be benchmarked against one another and before-and-after studies can be used to evaluate the effectiveness of specific tools, applying them as new design standards to proactively address issues before serious injuries or fatalities occur.

In general, locations are prioritized by:

- the number and frequency of traffic-related fatalities and serious injuries;
- presence of vulnerable road users (people walking, cycling, and/or using micromobility devices);
- protection of at-risk groups (including seniors, children, and people with mobility challenges);
- opportunities to coordinate improvements with other work already taking place; and
- feasibility to respond to a particular issue, which may be limited by cost, geometry or other factors.

Data sources and limitations

The City continues to collaborate with partners to expand data sets to improve monitoring and better inform engineering decisions. For many years, the City has had access to reliable collision data [via the Insurance Corporation of BC (ICBC)] and traffic-related fatality data [via the Vancouver Police Department (VPD)], but data on injury *severity* was lacking. To help address this gap, the City began working with Vancouver Coastal Health (VCH) and BC Ambulance in 2016. The City's own data collection methods also continue to be reviewed and improved.

The newer serious injury data sets are work-in-progress due to inconsistencies in collection methodology as well as sometimes missing location data which make it challenging to track progress year-over-year or conduct unbiased, comprehensive geospatial analyses. Despite this, they provide valuable insight, helping to identify locations where the greatest harm is occurring. As the data sets become more consistent and complete, they will allow the City to develop comprehensive *High Injury Network* maps that give more serious collisions greater weight and improve location identification and prioritization.

Exposure is factored into crash, injury and fatality data analyses when possible, i.e. 'normalizing' the information by considering the volume of people traveling along a particular route. The City has a limited number of permanent and temporary counters throughout the city that track the number of motor vehicles and sometimes other modes travelling along particular streets. Increasingly the City is also using new technologies such as automated, AI-enabled video systems and anonymized cell phone data. Some of these approaches use machine learning to detect, classify and track movements. Despite this, for most street segments, data is either not available or is limited to select times and dates.

Conflict analysis is another useful tool for traffic safety-related work. It examines how road users—such as people walking, cycling and driving—interact to identify near-miss events and unsafe behaviours. Unlike collision data, which reflects incidents that have already occurred, conflict data provides a proactive, leading indicator of safety risk that can strengthen and complement current data analysis approaches. While the City's video-based monitoring systems are primarily used for situational awareness and traffic counts, they also increasingly have the capability to support conflict analysis through AI-enabled tools. Exploring this functionality as part of this plan could enable more consistent, scalable, and proactive safety assessments across the transportation network.

Table 1 below highlights the major data sets used in traffic safety analysis, including what the data tells us as well as some of the limitations. For more information on how we are working with partners to improve data collection and analysis, see the *Post-Crash Response* section in the Strategic Framework chapter.

Table 1. Primary traffic collision data sources

	What the data tells us	Challenges
ICBC	<p><i>Large, consistently tracked data set for all collisions reported to ICBC</i></p> <ul style="list-style-type: none"> ▪ Location, time, date ▪ Limited severity (property damage, injury claim, fatality) ▪ Type of road user involved ▪ Detailed incident description (self-reported) 	<ul style="list-style-type: none"> ▪ Only includes ICBC-reported incidents (typically involving at least one motor vehicle) ▪ No detailed injury severity information (i.e. serious versus minor injury) ▪ No demographic information available to City ▪ Locations and incident descriptions may not always be accurate since they are self-reported
Police Reports	<p><i>Data from police-attended incidents</i></p> <ul style="list-style-type: none"> ▪ Location, time, date ▪ Detailed demographic information ▪ Detailed reports used to determine root cause ▪ Traffic Accident System (TAS) data assigns up to four contributing factors for each party ▪ Complete data set for fatalities 	<ul style="list-style-type: none"> ▪ In 2008, Provincial legislation changed so that police are no longer required to attend all crashes and attendance is at their discretion ▪ Data completeness for serious injuries varies across jurisdictions and year-over-year, due to variances in local polices resources and availability to attend
Hospitals	<p><i>Data shared by participating hospitals in the City of Vancouver (majority from VGH)</i></p> <ul style="list-style-type: none"> ▪ Detailed injury severity (serious injury typically defined as one requiring overnight stay in hospital) ▪ Basic demographic information (age, gender) ▪ Information on collisions not included in ICBC data set (e.g. pedestrian-cyclist collisions, pedestrian falls, cyclist falls and other incidents that don't involve a motor vehicle) 	<ul style="list-style-type: none"> ▪ Under-reported numbers with potential location bias (only ~30% of incidents have location data – varies by hospital and by year) ▪ Data quality varies year-by-year, making it challenging to do geospatial analysis or annual comparisons ▪ Vancouver-specific; not comparable across jurisdictions ▪ Limited incident description ▪ Collisions involving children not included in data set, as participating hospitals only treat patients 18 years or older
BC Ambulance	<p><i>Data from traffic incidents requiring an ambulance</i></p> <ul style="list-style-type: none"> ▪ Location (GPS-tracked), time, date ▪ Basic demographic information (age range, gender) ▪ Type of road user involved ▪ Children included in data set (BC Children's Hospital drop-offs) 	<ul style="list-style-type: none"> ▪ Injury severity is only implied (incidents requiring an ambulance are usually but not always serious) ▪ Limited incident description ▪ Type of road user sometimes missing or ambiguous ▪ Limited demographic information, since hospital and ambulance data is not linked ▪ Does not include serious incidents where an ambulance was not required
Fire Services	<p><i>Data from incidents attended by Fire and Rescue Services</i></p> <ul style="list-style-type: none"> ▪ Location, time, date ▪ Type of road user involved 	<ul style="list-style-type: none"> ▪ Only incidents where a 911 call was placed ▪ No information on how the collision happened or severity
City of Vancouver	<p><i>Data collected by the City, including location-specific counts and observations as well as public surveys</i></p> <ul style="list-style-type: none"> ▪ Speed measurements (short-term) ▪ Traffic counts (short-term or permanent depending on location) ▪ Conflict analyses (video, can be AI-assisted) ▪ Surveys regarding perceptions of safety 	<ul style="list-style-type: none"> ▪ Limited to specific locations ▪ Short-term counts are subject to variances based on external factors (weather, unexpected events, etc.)

Citywide trends

Traffic fatalities and injuries have decreased in Vancouver over the years, however there has been a lot of variance from year-to-year and progress has been slow (see *Figure 6* below). Note that while Vision Zero focuses on *serious* injuries, the injury statistics below include *all* injuries that were reported through insurance claims. As noted in the previous section, existing serious injury data sets have challenges that make year-over-year or cross-jurisdictional comparisons difficult. The City will continue working with partners to improve serious injury data collection and reporting.

Fatality rates are particularly low for the years 2010 and 2020; a possible reason for this is lower traffic volumes in those years due to the 2010 Winter Olympic Games and COVID-19 lockdowns respectively.

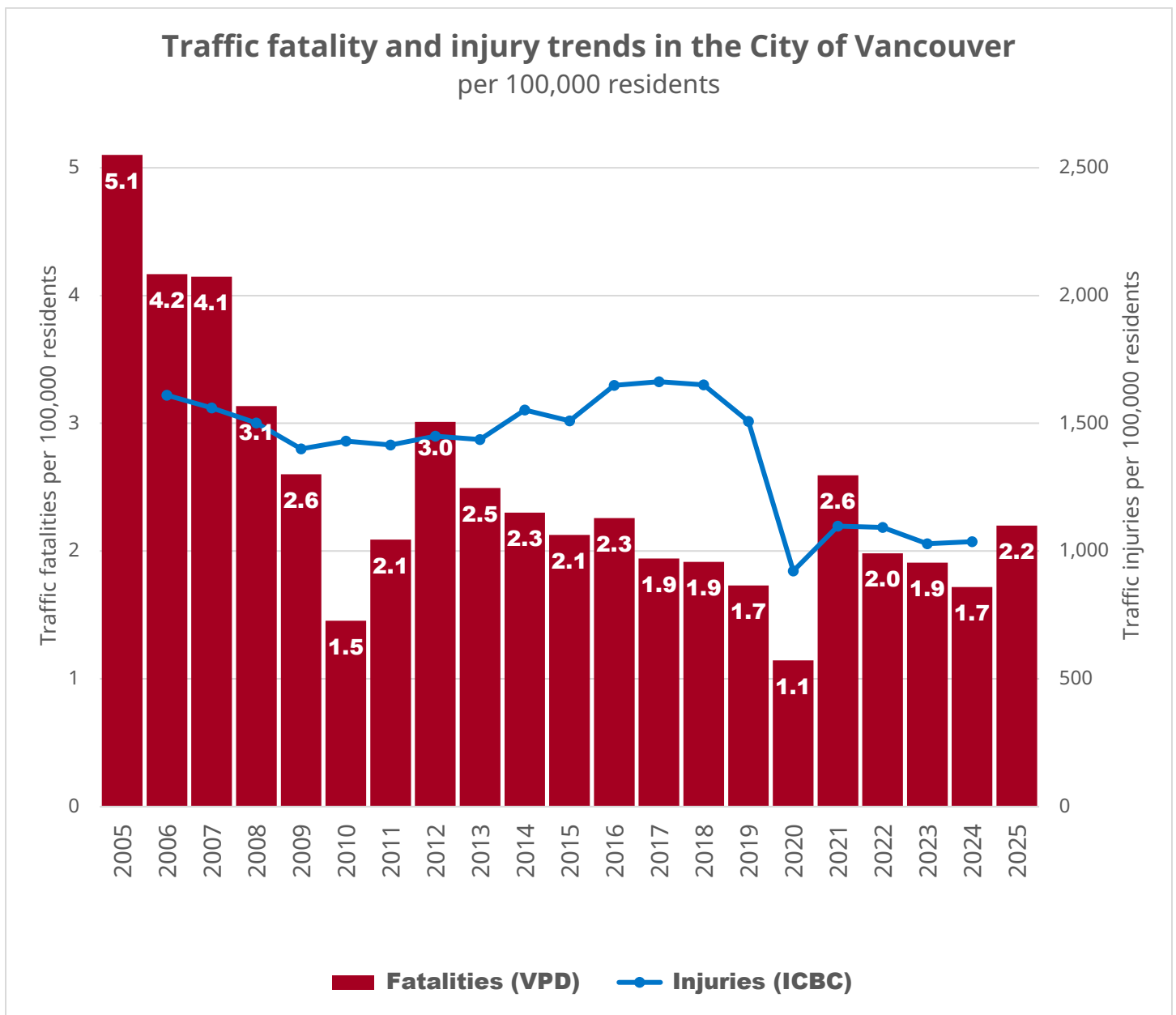


Figure 6. Traffic fatality and injury trends in the City of Vancouver per 100,000 residents...¹¹

Comparison with other jurisdictions

Figure 7 below compares Vancouver's traffic fatality rates with a number of peer cities. While Vancouver's streets are safer than many other major North American cities, the chart highlights room for improvement. One large city on the list—Helsinki, with a population comparable to Vancouver's—reported zero traffic fatalities for a full year between July 2024 and July 2025.¹² Public reports cite a number of reasons for their success, including reducing speed limits from 50 km/h to 30 km/h in much of the city, improving street design and increasing automated enforcement, as well as vehicle technology advancements.

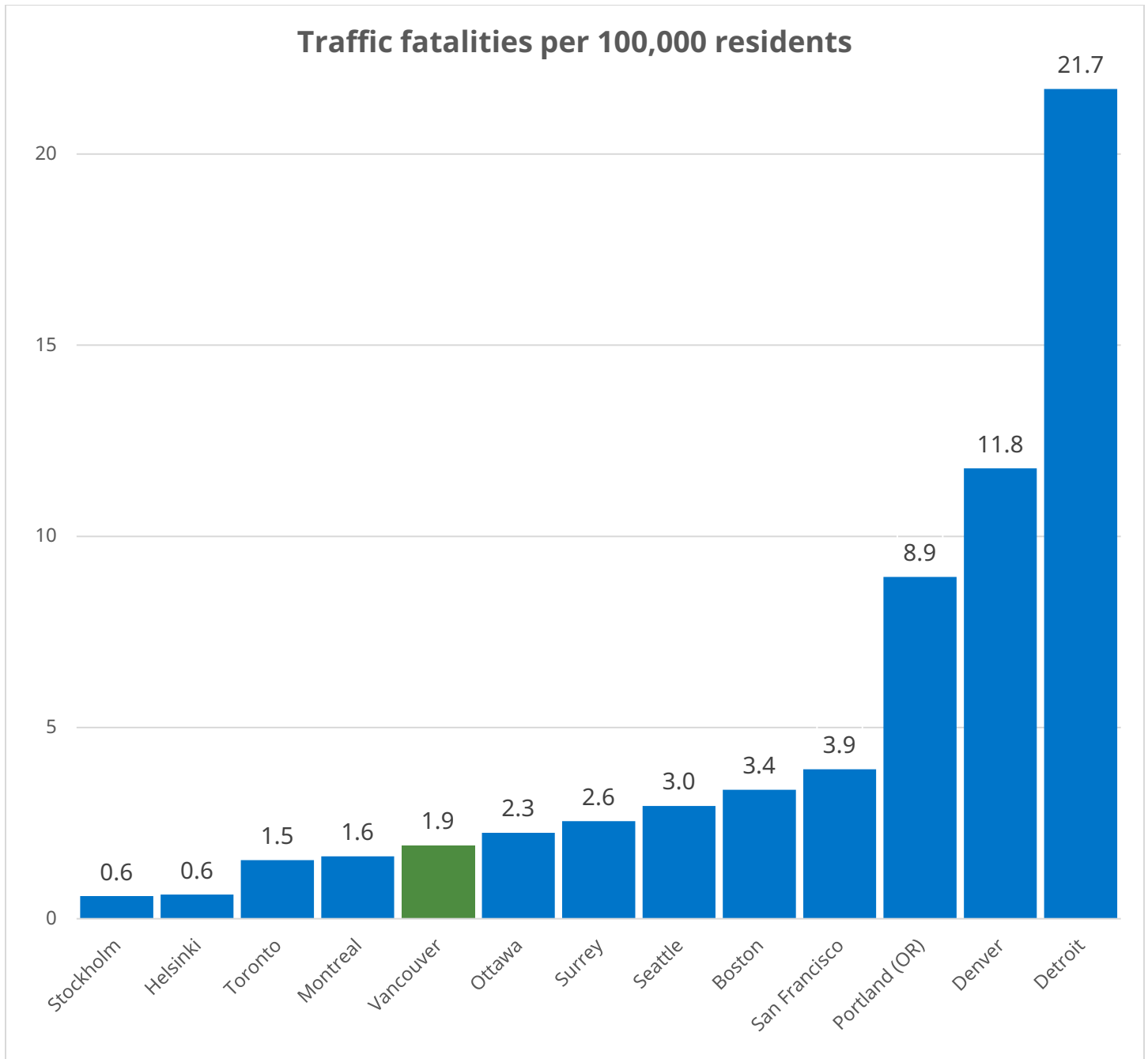


Figure 7. Comparison of fatality rates by city. Fatality data was averaged across the most recent 5-year data period available between 2020 and 2025. Source: City of Vancouver research.

High injury and fatality locations

The following maps highlight the highest collision locations in the city that resulted in injury or death for the five-year period between 2020 and 2024.

The analysis relies on ICBC data, with some corrections to fatality data using more detailed police reports when available. It is important to understand the various assumptions and limitations of the analysis:

- The ICBC data set includes crashes involving at least one motor vehicle. It does not include incidents involving *only* people walking, cycling and/or using micromobility devices.
- The analysis includes all crashes that were flagged as resulting in an injury but does not factor injury *severity*.
- Crashes that resulted in property damage only were excluded from the analysis.
- Location data reported to ICBC is not always precise since it is self-reported by people involved in the crash.
- The data set groups together incidents that took place within 35m of each other, with mid-block incidents usually grouped to the nearest intersection.
- The grouping does not account for elevation. If a crash occurred on a bridge over another cluster of incidents, for example, it could be grouped with that cluster rather than marked as a separate location.
- The highest incident locations involving only motor vehicles were the Knight St Bridge ramps and the off-ramps from Highway 1. To focus on areas under City jurisdiction and to highlight other high injury locations, the Lions Gate Bridge, Knight Street Bridge, and Trans-Canada highway ramps at McGill, Bridgeway and E 1st Avenue were excluded from this analysis.
- The data does not account for exposure, i.e. it is not normalized by the number of people traveling through a given location. As a result, some relatively 'safer' locations may show up higher in the ranking than more 'dangerous' ones because of much higher total usage.

In a related analysis, the City looked at BC Ambulance data, mapping pick-up locations for all crashes that required an ambulance over the most recently available five-year period (2019-2023). The data set provides additional insight on serious crashes, since incidents requiring an ambulance are likely to be severe in nature. Limitations of the data set include limited collision descriptions and sometimes missing or ambiguous information on the type of road user involved. These maps are shown in *F. High Injury Map Appendix* to allow for side-by-side comparison with the ICBC data.

A Vision Zero best practice is to map a *High Injury Network* that weighs serious injuries and fatalities more heavily than minor injuries. The City will continue working towards this approach as more complete and consistently tracked injury severity data sets become available.

Injury and fatality locations – all modes of travel

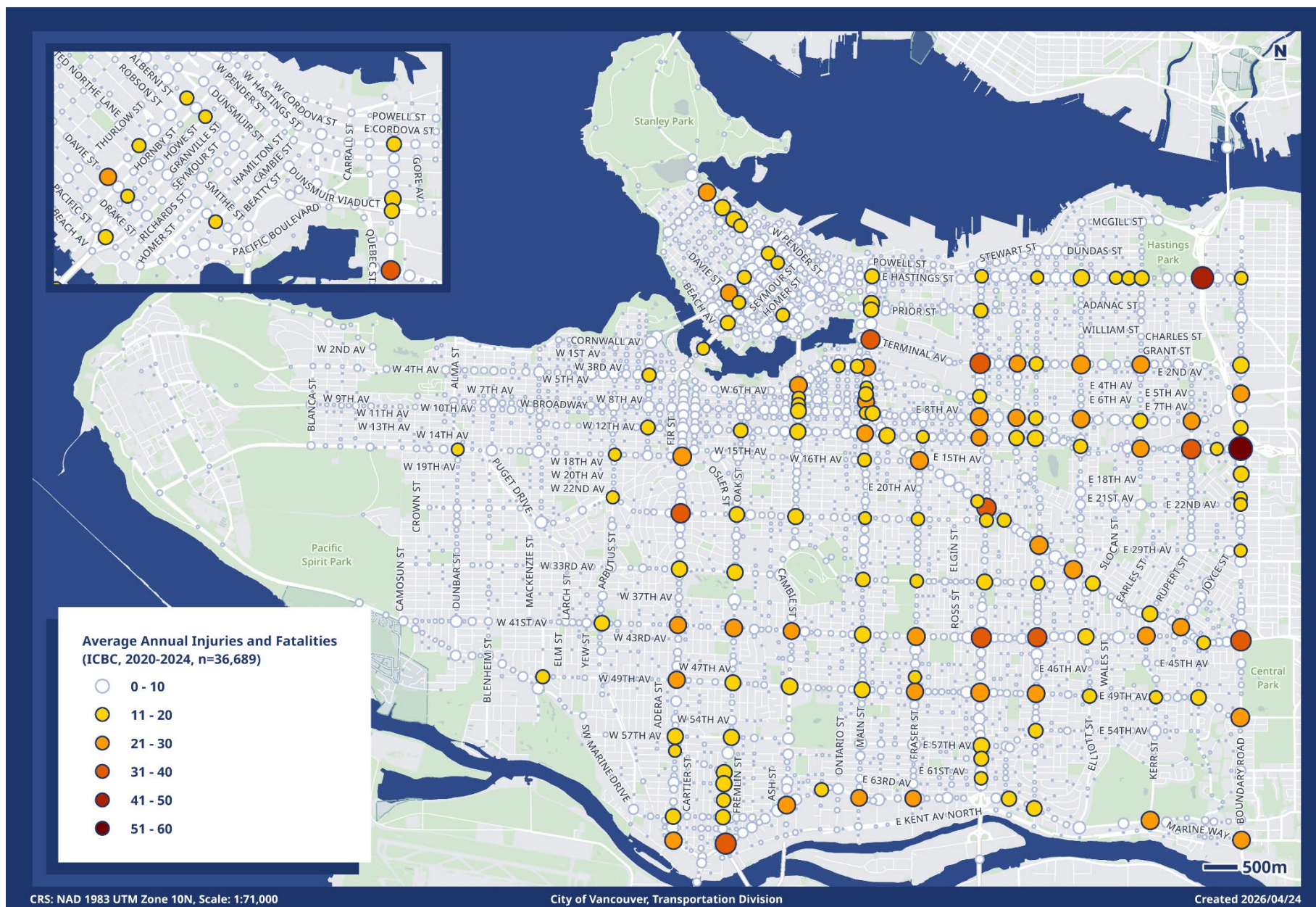


Figure 8. Map of crashes resulting in injury or fatality – all modes of transportation (2020-2024). Note: to focus on locations under City jurisdiction, the Lions Gate Bridge, Knight Street Bridge, and Trans-Canada highway ramps at McGill, Bridgeway and E 1st Avenue have been excluded from this analysis.

Table 2. Highest injury and fatality locations for all modes of transportation (2020-2024).

Note: to focus on locations under City jurisdiction, the Lions Gate Bridge, Knight Street Bridge, and Trans-Canada highway ramps at McGill, Bridgeway and E 1st Avenue have been excluded from this analysis.

Highest Injury and Fatality Locations – All Modes of Transportation (2020-2024)							
Rank #	LOCATION		average annual incidents	Rank #	LOCATION		average annual incidents
	N-S STREET	E-W STREET			N-S STREET	E-W STREET	
1	Boundary Rd	Grandview Hwy	58.2	11	Main St	Terminal	30.6
2	Cassiar Connector	E Hastings St	47	12T	Marpole Ave	W 16 th Ave	28.6
3	Oak St Bridge	SW Marine Dr	40	12T	Boundary Rd	E 49 th Ave	28.6
4	Clark Dr	E 1 st Ave	37.4	14	Knight St	E 49 th Ave	28
5	Boundary Rd	Kingsway	37.2	15	Nanaimo St	E 1 st Ave	27.6
6	Knight St	E 41 st Ave	34.8	16	Kerr St	SE Marine Dr	26.8
7	Rupert St	Grandview Hwy	32	17T	Victoria Dr	Kingsway	26.4
8	Knight St	Kingsway	31.8	17T	Nanaimo St	Kingsway	26.4
9	Granville St	W King Edward Ave	31.4	19	Fraser St	E 16 th Ave	26
10	Victoria Dr	E 41 st Ave	31	20	Clark Dr	E Broadway	25.8

Commentary

Some of the highest crash locations for motor vehicles occur at highway ramps at the periphery of the city. Many of these are rear-end collisions that occur as drivers transition from high-speed roadways with limited access to a more complex urban environment with much lower speeds. Some drivers may also make unsafe, sudden lane changes when they realize they are about to miss their exit. Due to the nature of reporting, this data may also aggregate incidents from locations further from the intersection.

Other high injury locations tend to be at the intersection of busy multi-lane arterial streets, particularly where there are complex turn or merge movements.

While the total number of crashes resulting in injury for all modes is relatively high, many of these injuries are more likely minor in nature, particularly those that do not involve vulnerable road users such as people walking and cycling, who lack the physical protection provided by a motor vehicle.

Injury and fatality locations - pedestrians

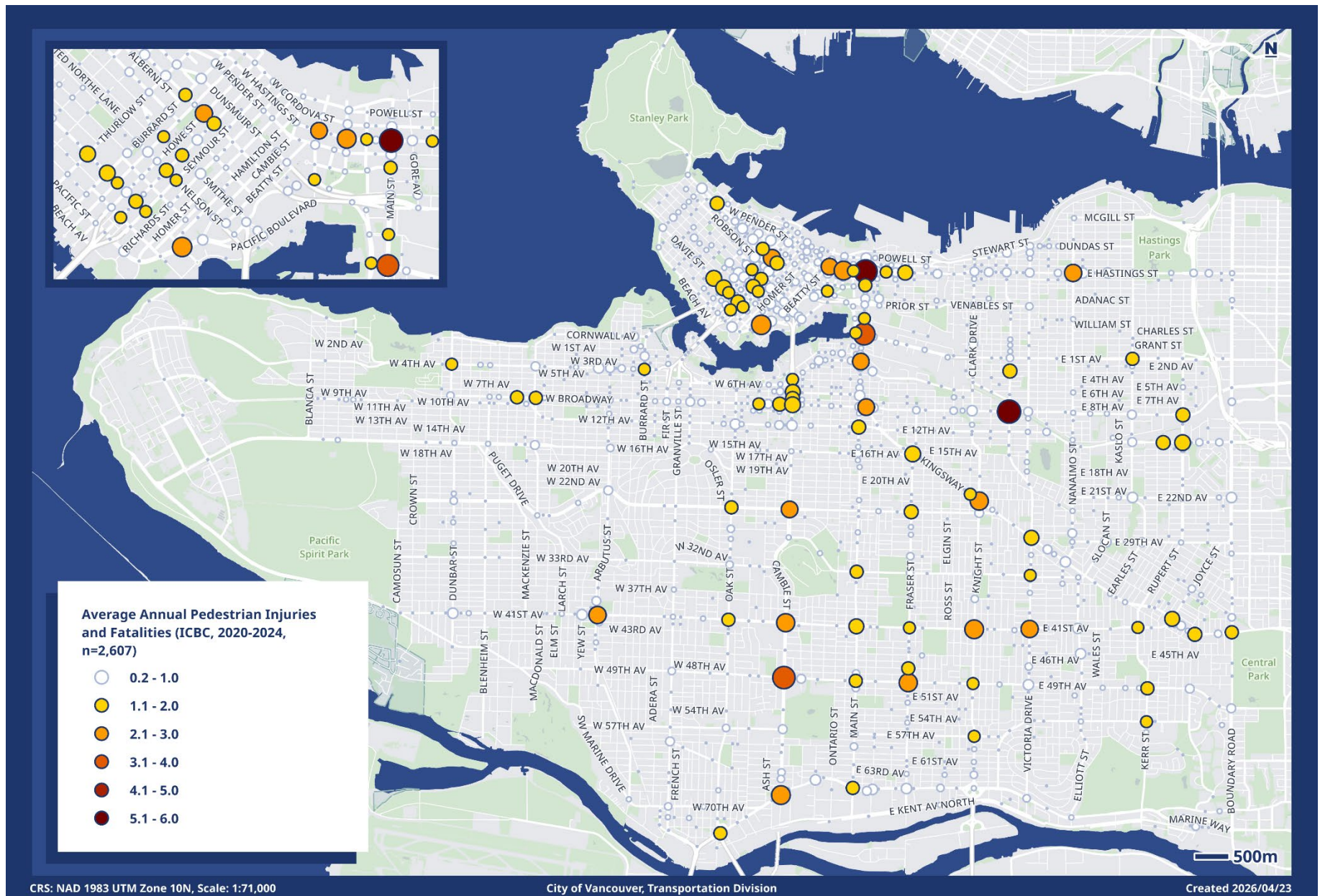


Figure 9. Map of crashes resulting in injury or fatality – involving pedestrians (2020-2024)

Table 3. Highest injury and fatality locations for incidents involving people walking (2020-2024)

Highest Injury and Fatality Locations – Pedestrians (2020-2024)							
Rank #	LOCATION		average annual incidents	Rank #	LOCATION		average annual incidents
	N-S STREET	E-W STREET			N-S STREET	E-W STREET	
1	Commercial Dr	E Broadway	5.8	12T	Nanaimo St	E Hastings St	2.4
2	Main St	E Hastings St	5.2	12T	E Boulevard	E 41 st Ave	2.4
3	Cambie St	W 49 th Ave	4	12T	Victoria Dr	E 41 st Ave	2.4
4	Main St	Terminal Ave	3.8	16T	Abbott St	W Hastings St	2.2
5	Pacific Boulevard	Davie St	3	16T	Main St	E 2 nd Ave	2.2
6T	Carrall St	E Hastings St	2.8	16T	Kingsway	E Broadway	2.2
6T	Knight St	E 41 st Ave	2.8	16T	Cambie St	W King Edward Ave	2.2
6T	Cambie St	SW Marine Dr	2.8	20T	Thurlow St	Davie St	2
9T	Knight St	Kingsway	2.6	20T	Burrard St	Davie St	2
9T	Cambie St	W 41 st Ave	2.6	20T	Cambie St	W Broadway	2
9T	Fraser St	E 49 th Ave	2.6	20T	Rupert St	Grandview Hwy	2
12T	Howe St	Georgia St	2.4	20T	Fraser St	E 16 th Ave	2

Commentary

Many of the highest ranked locations in *Table 3* occur in busy pedestrian areas where there is a high crossing demand across a multi-lane arterial street. Areas with very high pedestrian activity, including the downtown, busy commercial areas, and near transit stations also rank highly due to increased exposure. Some locations are also impacted by socioeconomic or other factors, such as Hastings Street in the Downtown Eastside.

While the total number of pedestrian-involved crashes resulting in injury is relatively low (compared to the totals when looking at all modes of travel), the likelihood of *serious* injury is much higher, since pedestrians lack the physical protection provided by a motor vehicle. Injuries are particularly severe when vehicles are traveling at higher speeds, since crash impacts increase exponentially with speed.

Injury and fatality locations – cyclists and micromobility users

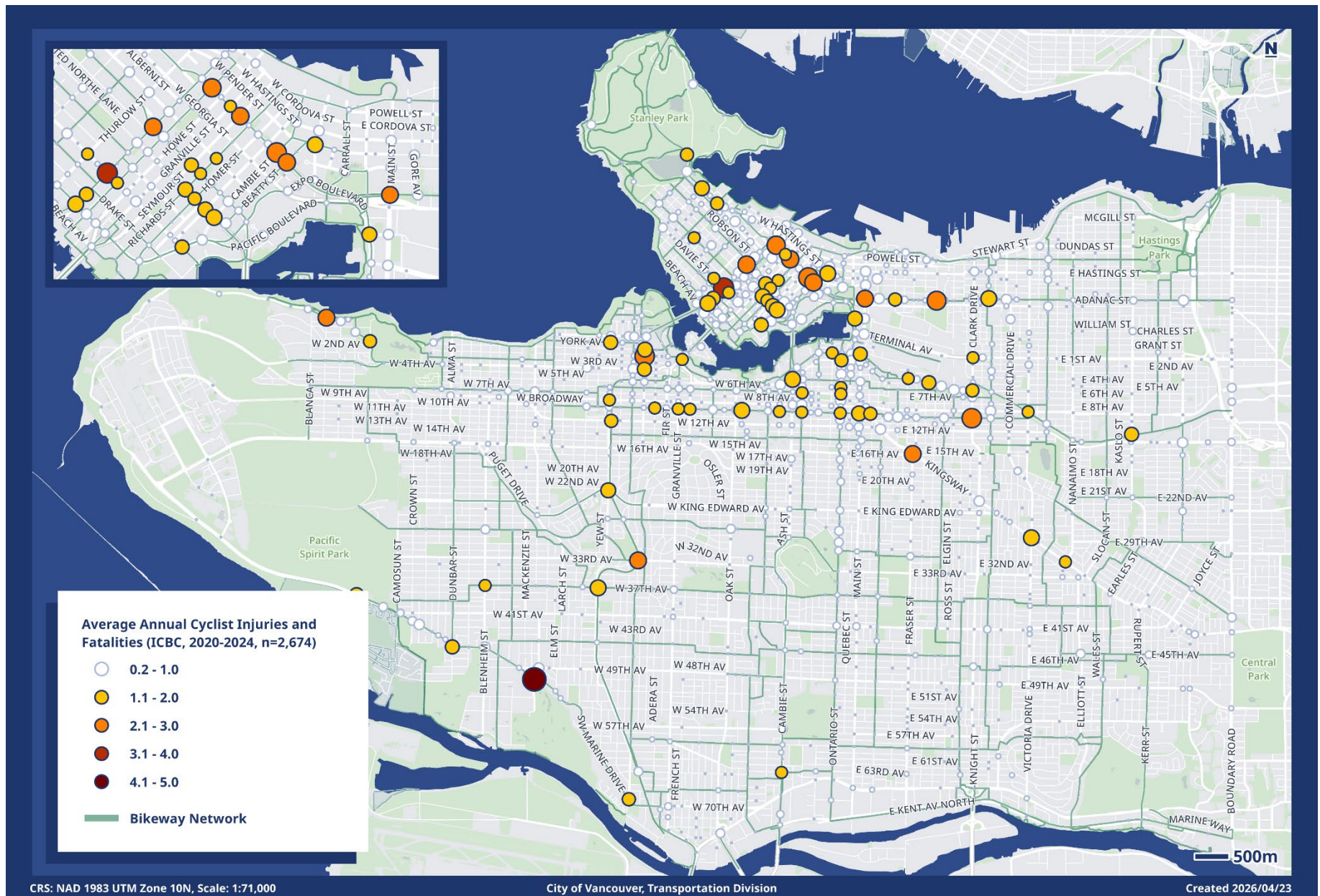


Figure 10. Map of crashes resulting in injury or fatality – involving people cycling or using micromobility devices (2020-2024)

Table 4. Highest injury and fatality locations for incidents involving people cycling or using micromobility devices (2020-2024)

Highest Injury and Fatality Locations – Cyclists and Micromobility Users (2020-2024)							
Rank #	LOCATION		average annual incidents	Rank #	LOCATION		average annual incidents
	N-S STREET	E-W STREET			N-S STREET	E-W STREET	
1	Macdonald St	SW Marine Drive	4.4	11T	Tolmie St	NW Marine Dr	2.2
2	Burrard St	Davie St	3.2	11T	Fraser St	E 16 th Ave	2.2
3T	Cambie St	Dunsmuir St	3	11T	Pine Crescent	W 33 rd Ave	2.2
3T	Burrard St	W 2 nd Ave	3	12T	Abbott St	Pender St	2
3T	Clark Dr	E 10 th Ave	3	12T	McLean Dr	Adanac St	2
6	Campbell Ave	Union St	2.8	12T	Burrard St	Pacific St	2
7	Hornby St	Dunsmuir St	2.6	12T	Cambie St	Nelson St	2
8T	Seymour St	Dunsmuir St	2.4	12T	Cambie St	W 5 th Ave	2
8T	Burrard St	Smithe St	2.4	12T	Laurel St	W 10 th Ave	2
8T	Beatty St	Dunsmuir St	2.4	12T	Victoria Dr	Kingsway	2
11T	Main St	Union St	2.2	12T	West Boulevard	W 37 th Ave	2

Commentary

Many of the locations identified in *Table 4* are on the city's active travel network. This is to be expected, since ridership is heavily biased towards existing routes which, unlike sidewalks or motor vehicle lanes, cover a relatively small fraction of the total street network. High collision locations tend to be at busy intersections, with complex or heavy vehicle turning movements.

There are many streets in the city with latent cycling and micromobility demand where most people do not ride because they feel it is too dangerous; these locations may also require design interventions, even though they don't show up in the data in the same way. This is particularly the case for arterial shopping streets where there is a higher risk of 'dooring,' particularly when people cycling or rolling are forced to ride close to high-turnover on-street parking.

While many of the collisions are in the metro core due to higher cycling activity, there are some outliers such as SW Marine Drive and locations along Kingsway, which warrant additional investigation.

As with pedestrian-involved collisions shown on the previous page, the cycling and micromobility-involved injuries noted here have a higher likelihood of being serious (relative to crashes involving only motor vehicles) since the victims lack the physical protection provided by a motor vehicle.

Common collision types by mode

The City is working with Parsons Inc. (a multi-disciplinary consulting firm) to analyze ICBC-reported crashes in greater depth, focusing on the most recently available five-year data period (2020-2024). The sections below highlight the most common collision types by mode of travel.

The consultant work leveraged artificial intelligence to analyze thousands of crash reports, which were then validated by human review of a subset of incidents.

Note the following:

- The ICBC data set includes crashes involving at least one motor vehicle. Incidents involving *only* people walking, cycling and/or using micromobility devices were not part of the analysis.
- For vulnerable road users (people walking, cycling or using micromobility devices), the analysis looked at all reported crashes and whether an injury was reported. For crashes involving only motor vehicles, only those resulting in injury were analyzed.
- Crashes that took place off-street (e.g. in parking lots), on private (non-City) streets, involving unknown entities, or involving only on-board transit passengers were excluded from the analysis.
- Results are preliminary and subject to change.

Collisions involving motor vehicles and pedestrians

The analysis indicates that almost two-thirds (64%) of pedestrian-involved crashes took place at intersections, about 25% took place mid-block, and about 10% at other locations such as driveways or alleys.

The most common collision types involving pedestrians are:

1. *Left-turning motor vehicle at intersection (26%)*

The most common scenario involves a left-turning driver colliding with a pedestrian at a crosswalk. Over 80% of left-turning collisions occur at signalized intersections and typically involve a pedestrian crossing with the with a walk signal while the driver has a green light. There are a number of measures that can reduce conflicts between pedestrians and left-turning drivers, such as leading pedestrian intervals, continuous sidewalks or raised intersections to increase yielding compliance, left-turn bays and protected left turns.

Pedestrians had the right-of-way 94% of the time for this type of collision.

2. *Right-turning motor vehicle at intersection (19%)*

The second most common scenario involves a right-turning driver colliding with a pedestrian at a crosswalk. Over 85% of right-turning collisions occur at signalized intersections, typically when the pedestrian is crossing with the walk signal. Measures to reduce potential conflicts between pedestrians and right-turning vehicles are similar to those cited for left-turning vehicles above. Additional measures include tight corner geometry to encourage drivers to turn more slowly and “no turn on red” restrictions. Pedestrians had the right-of-way 97% of the time for this type of collision.

3. *Motor vehicle proceeds straight through while pedestrian crosses at intersection (14%)*

This type of collision occurs when a driver proceeds straight through at intersection without yielding to a pedestrian that is crossing the street. Measures to address failure to yield collisions include raised crosswalks, improved crosswalk markings, improved lighting, red light cameras, enhanced enforcement and “pay attention” road safety awareness campaigns.

Pedestrians had the right-of-way 69% of the time for this type of collision.

4. *Motor vehicle hits pedestrian mid-block (12%)*

The fourth most common scenario occurs when a pedestrian attempts to cross the street mid-block, either at a marked crossing or at a location without an intersection control. Potential measures include enhanced or additional mid-block crossing facilities based on crossing demand and collision history, improving nearby intersections to make them more attractive to cross, and “cross at the corner” road safety awareness campaigns to remind pedestrians to cross at intersections or other dedicated crossing facilities. Reducing speeds also reduces the chance of such crossings leading to a serious injury or fatality.

5. *Motor vehicle hits pedestrian at driveway or laneway location (7%)*

The fifth most common scenario takes place at a driveway or laneway location, including when the pedestrian is crossing at the sidewalk. Continuous sidewalks and increased parking clearances can help address this issue this by increasing yielding compliance and making pedestrians more visible to drivers.

Most of these collision types would be reduced by lower speeds and better vehicle technology to detect and avoid collisions with pedestrians.

Collisions involving motor vehicles and people cycling or using micromobility devices

The analysis indicates that almost three-fifths (58%) of crashes involving people cycling or using micromobility devices such as e-scooters take place at intersections.

The most common collision types involving people cycling or using micromobility devices are:

1. *Motor vehicle goes straight at intersection (19%)*

These are primarily perpendicular crashes where one party fails to stop, yield or follow the traffic signal. About half (47%) happen at stop signs, 38% at signalized intersections and 13% at traffic circles. Measures to address this issue include reinforcing the right-of-way at stop signs (e.g. through raised crossings) and improving visibility at intersections (e.g. through extended parking clearances, enhanced pavement markings, bike boxes and/or improved lighting).

People cycling or using micromobility devices had the right-of-way 76% of the time.

2. *Right-turning motor vehicle at intersection ('right hook') (14%)*

Almost 80% of 'right hooks' take place at signalized intersections, where a turning driver crosses the path of a cyclist or micromobility user going straight. This can be addressed through measures such as leading bike intervals that put the vulnerable road user ahead of the turning vehicle, protected turn phases, extended parking clearances to improve visibility, raised crossings to increase yield compliance and "no turn on red" restrictions.

People cycling or using micromobility devices had the right-of-way 97% of the time.

3. *Left-turning motor vehicle at intersection (12%)*

This type of crash involves a left-turning motorist colliding with a cyclist or micromobility user traveling straight. Slightly over half (54%) of this type of crash take place at signalized intersections, and over 40% at stop signs. Measures to address this include leading bike intervals, protected left turns and high visibility 'conflict zone' markings for active travel lanes, as well as increased parking clearances and raised crossings. People cycling or using micromobility devices had the right-of-way 96% of the time.

4. *Doorings (9%)*

Doorings occur when a motor vehicle occupant opens a door in front of a moving cyclist or micromobility user, resulting in a collision. A number of design measures can address dooring, most notably protected active lanes, particularly in areas with high turnover parking such as shopping districts where the risk is higher. Active lane configurations should include a buffer space that accounts for opening doors and exiting vehicle passengers. On local street greenways, removing parking on one side of the street can help by providing more space overall. Other strategies include vehicle technology alerting motor vehicle occupants of vulnerable road users in their blind spot, and 'shoulder check' campaigns that remind vehicle occupants to look before they exit the vehicle.

5. *Crossing driveway or laneway (9%)*

This type of collision includes incidents where a motor vehicle and cyclist or micromobility user collide as the motor vehicle is entering or exiting an alley, parking lot, or driveway. Measures to address this issue include raised crossings and high visibility 'conflict zone' markings for active travel lanes, limiting vehicle crossings of active travel lanes (e.g. by consolidating driveways), implementing turn bans at problematic locations, and increased parking clearances to improve visibility between drivers and cyclists.

Most of these collision types would be reduced by lower speeds and better vehicle technology to detect and avoid collisions with vulnerable road users.

Collisions involving motor vehicles

The analysis looked at ICBC-reported collisions involving only motor vehicles, including both single- and multi-vehicle crashes. Collisions resulting in property damage only were excluded from the analysis.

The most common collision types involving only motor vehicles that resulted in injury or worse are:

1. *Rear-end collision at signalized intersection (21%)*

The most common scenario is a rear-end collision at a signalized intersection. These collisions are associated with queue formation and unexpected braking from the driver ahead due to signals, turns, congestion or other friction. Potential measures include coordinating signals, managing queues, and providing adequate storage for turning vehicles separate from through lanes.

2. *Rear-end collision at mid-block location (20%)*

The second most common scenario is a mid-block rear-end collision. These collisions are associated with following too closely and driver inattention when the driver ahead brakes due to congestion, entering a driveway, parking or other curbside activity, or when yielding to other road users. This can be mitigated by measures such as reducing speeds, adjusting signal progression, consolidating driveways and parking restrictions.

3. *Left-turn across oncoming traffic collision at signalized intersection (11%)*

The third most common scenario involves left-turning vehicles crossing the path of oncoming traffic at signalized intersections. These collisions are typically related to gap selection at permissive left turns, limited sight distance, opposing traffic speed, or driver misjudgment. Potential measures include protected left turns and turn bays, improved sight lines, signal timing adjustments and intersection lighting improvements.

4. *Same-direction side-swipe collision at mid-block location (10%)*

The fourth most common scenario is a same-direction side-swipe collision at a mid-block location. These collisions may occur where vehicles are changing lanes, merging, weaving, interacting with parked vehicles, or travelling through constrained multi-lane corridors. Potential measures include clearer lane markings, lane continuity improvements, driveway consolidation, parking restrictions, lane reductions where feasible, and geometric improvements at merge or weave areas.

5. *Right-angle collision at signalized intersection (8%)*

The fifth most common scenario is a right-angle collision at a signalized intersection. These collisions may be associated with red-light running, failure to yield, signal visibility issues, inadequate clearance intervals, or driver confusion at complex intersections. Potential measures include reviewing signal visibility and placement, adjusting yellow and all-red clearance intervals, improving intersection lighting and pavement markings, red-light camera enforcement and simplifying intersection operations.

6. *Right-angle collision at stop-controlled intersection (5%)*

The sixth most common scenario is a right-angle collision at a stop-controlled intersection. These collisions are generally associated with high approach speeds, failure to yield, rolling stops or poor sign visibility. Potential measures include improving stop sign visibility, adding stop bars and enhanced pavement markings, raised crossings to increase yielding compliance, improving sight distance by trimming vegetation or removing parking near corners, upgrading lighting or changing the type of traffic control.

All of these collision types would be reduced by measures that lower speeds, improve visibility, and make turns and lane changes more predictable, as well as vehicle technology to detect and avoid collisions.

Factors influencing fatal collisions

Understanding why people are being injured and killed on our streets supports evidence-based decisions on how best to prevent crashes. In British Columbia, all fatal crashes are investigated by police, who can assign up to four contributing factors to each party involved. These factors are then entered into the BC Traffic Accident System database (TAS), with [public reports available through the Insurance Corporation of British Columbia](#).¹³

The data indicates that the top contributing factors to fatal crashes in both BC and the Lower Mainland are speeding, distraction, and impairment (*Figure 11*). Other common factors include failing to yield right-of-way, ignoring traffic control devices, and environmental factors such as weather or road conditions.

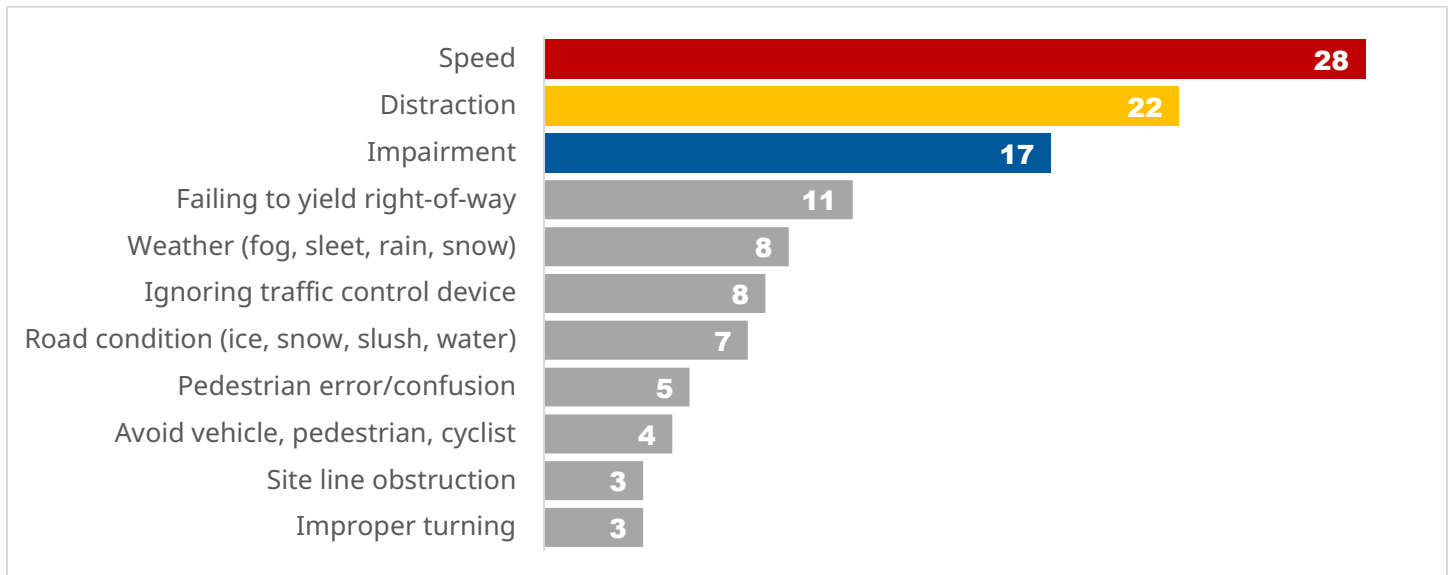


Figure 11. Top factors in fatal motor vehicle collisions in the Lower Mainland (annual average for 5-year period 2020-2024). The top three factors are the same at the Provincial level.¹³

- *Speed* is a top contributing factor to fatal collisions locally and around the world. Kinetic energy increases exponentially with speed, so when speed doubles, crash impacts quadruple. Higher speeds also increase the likelihood of a crash in the first place, since they reduce a driver's field of vision and require more time and distance to stop. This is discussed in more detail in the *Safe Speeds* section in the Strategic Framework chapter.
- *Distraction* often involves mobile phone use while behind the wheel, but can also take other forms such as eating or drinking, grooming, or interactions with other vehicle occupants.
- *Impairment* can take many forms. Alcohol is the most common cause of driver impairment, but medications and other drugs can also impact the ability to safely operate a motor vehicle. Driver fatigue is another form of impairment that can lead to tragic consequences; in a 2025 survey, almost one-in-four BC drivers admitted to falling asleep at the wheel within the past year.¹⁴
- *Failure to yield right-of-way or obey traffic control devices* like traffic signals or stop signs are a common cause of serious crashes.
- *Environmental factors* such as poor weather, road conditions, and glare from sunlight all make driving more difficult, and often combine with other factors contributing to fatal collisions.

C. STRATEGIC FRAMEWORK

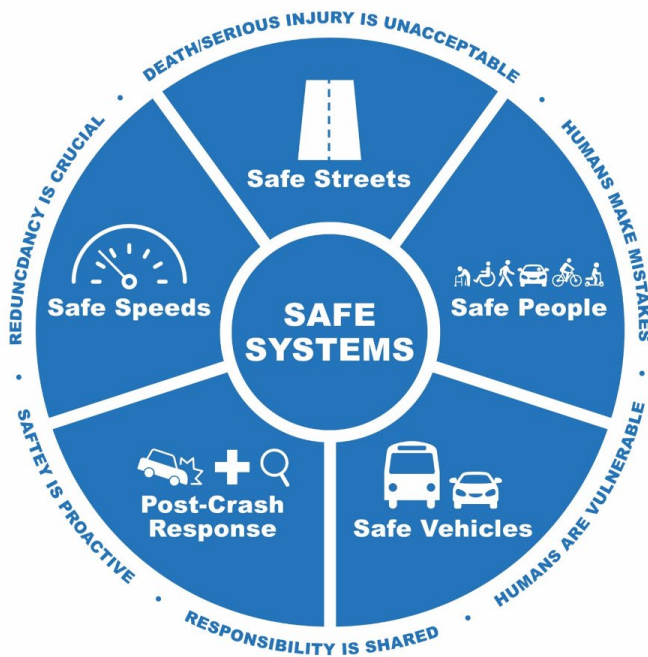
Overview

This chapter includes detailed directions framed around the Vision Zero *Safe Systems* approach.

The directions complement and build on existing local, regional, and Provincial Vision Zero policies—including the City of Vancouver’s [Transportation 2040 Plan](#)¹ (2012), TransLink’s [Transport 2050 Plan \(safety chapter\)](#)² (2022) and the Province’s [BC Road Safety Strategy 2025](#)³ (2024)—and are further informed by international best practices and recent Council directions related to safety.

Together, they provide a comprehensive strategic framework to guide the City’s transportation safety efforts in the years ahead. The framework will be used in ongoing basis to help prioritize future projects and programs, inform related budget conversations, and support partner-led initiatives.

Vision Zero Safe Systems Approach



1. Safe Speeds

the top factor in number and severity of collisions

2. Safe Streets

how roads are designed, built and maintained

3. Safe People

education, encouragement, enforcement, legislation

4. Safe Vehicles

how vehicle size, weight, and features impact safety

5. Post-Crash Response

responding to crashes and fatalities

Figure 12. The five elements of the safe system approach are interconnected, working together to ensure a safe transportation system.

Strategies at a glance

Table 5. High-level strategies

1	SAFE SPEEDS
	the top factor influencing the number and severity of collisions
1.1	Set safe speed limits on local streets.
1.2	Set safe speed limits on major streets.
1.3	Encourage appropriate speeds using traffic calming treatments and street configurations.
1.4	Adjust traffic signal timing to encourage safe travel speeds.
1.5	Work with the Province to expand safety camera enforcement and enable blanket speed limits.
2	SAFE STREETS
	how roads are designed, built and maintained
2.1	Address high danger hotspots and corridors for all modes.
2.2	Build a comprehensive safe active travel network for people of all ages, abilities and backgrounds.
2.3	Build and retrofit streets to be safe and accessible.
2.4	Maintain streets and road markings in a state of good repair.
3	SAFE PEOPLE
	education, encouragement, enforcement and legislation
3.1	Support education, promotion and awareness campaigns to improve safety and reduce conflicts.
3.2	Support laws that protect vulnerable road users and advance safety for all road users.
3.3	Support enforcement practices that target dangerous behaviour and protect vulnerable road users.
4	SAFE VEHICLES
	how vehicle size weight and features impact safety
4.1	Improve the safety of City-owned and City-contracted motor vehicles.
4.2	Support regulations and incentives that improve motor vehicle safety.
5	POST-CRASH RESPONSE
	responding to crashes and fatalities
5.1	Investigate and respond to all traffic fatalities.
5.2	Design the active travel and public space networks to accommodate emergency vehicles where necessary.
5.3	Work with partners to improve data collection, integration and analysis.

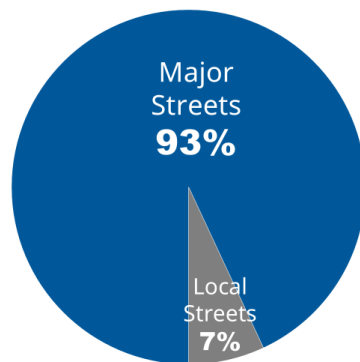
1. Safe Speeds

Background

Safe speeds are the first layer of protection in the Vision Zero Safe Systems approach. Speed is the fundamental factor contributing to injury severity, and is identified in police reports as the [number one contributing factor in fatal crashes in BC and in the Lower Mainland](#).¹³ Even when *speeding* isn't an official contributing factor, *speed* inevitably plays a role, since higher speeds require more time and distance to stop, increasing the likelihood of a crash and the severity of injuries when one does occur.

The City has made progress implementing safer speeds on local streets, through measures such as traffic calming and lowered speed limits. However, there is a need to also focus on major streets (i.e. arterial and collector streets), where roughly 90% of serious injuries and fatalities occur.

Fatalities



Serious Injuries

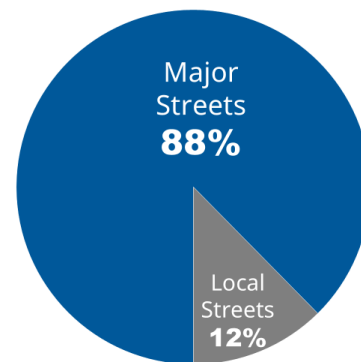


Figure 13. Source: City of Vancouver, based on analysis of data from Insurance Corporation of British Columbia, Vancouver Police Department, and Vancouver Coastal Health...¹⁵ 'Major streets' includes arterials, secondary arterials, and collector streets.

Benefits of lower speeds

Reducing motor vehicle speeds has significant benefits:¹⁶

- *Fewer crashes* from reduced stopping distances and improved peripheral vision
- *Fewer fatalities and less severe injuries* when crashes do occur
- *Quieter streets and improved air quality*
- *Fewer delays and more predictable travel times* from fewer emergency closures
- *Reduced congestion and improved traffic flow* by enabling drivers to merge into traffic more easily and allowing for smaller gaps between vehicles
- *Increased mode shift towards healthy, active transportation choices like walking and biking*, by making alternatives to driving safer and more comfortable
- *Potential reduced need for expensive signal infrastructure*, since low speed street designs with narrow rights of way may lesson the need for signalized crossings

Impact of lower speeds on congestion

While it may seem counter-intuitive, lower speeds can help reduce traffic congestion and improve vehicle flow in urban areas. This is especially the case in cities like Vancouver with many intersections and high volumes of pedestrians, where the density of traffic signals, turn movements, parking maneuvers and other friction often mean frequent slowing and stopping. There are several reasons for this:

- At lower speeds, drivers can travel closer together since safe braking distances are shorter. This increases overall vehicle throughput for each lane.
- Lower speeds make it easier for drivers to judge safe gaps, making on-street parking, merging into traffic, lane changes and left turns easier and less stressful, with less wait time.
- Lower speeds help reduce the number of motor vehicles on the street by improving overall safety, which makes it easier for more people to choose other forms of transportation.
- Lower speeds make travel times more predictable since there are fewer crashes, which translates into fewer unexpected emergency delays.

Increased travel times are sometimes raised as a concern with lower speed limits, but experiences in other cities suggests that overall travel time impacts are small in urban areas. A 2024 study of 40 European cities that reduced speed limits to 30 km/h found that travel times only increased by 3 to 5%, which equates to two minutes or less for a 40-minute car trip.¹⁶

Impact of lower speeds on transit

Lower speed limits can also benefit transit, due to aforementioned improvements to traffic flow and travel time reliability, as well as a safer and more comfortable walking environment at either end of the trip. Small increases to bus travel times can be offset by appropriate signal coordination, dedicated bus lanes and other transit priority measures.

[Lower speed limit precedents](#)

Hundreds of cities around the world have reduced speed limits to 30 or 40 km/h, often citywide, including New York City,¹⁷ Washington DC,¹⁸ Boston,¹⁹ Minneapolis,²⁰ Melbourne,²¹ Sydney,²² London,²³ Paris,²⁴ Brussels,²⁵ Amsterdam,²⁶ Barcelona,²⁷ and nationwide in South Korea²⁸ and Japan.²⁹

The safety benefits of lower speeds are well documented, and a [2024 meta-study of 40 European cities that reduced speed limits to 30 km/h](#)¹⁶ found on average:

- 23% fewer crashes
- 38% fewer injuries
- 37% fewer fatalities
- 18% reduction in emissions
- 2.5dB reduction in noise
- 7% decrease in fuel consumption
- 2% decrease in traffic congestion

Cities that have made the greatest progress towards Vision Zero—including [Helsinki, a city of almost 700,000 residents that in 2024 went a full year without a traffic death](#)¹²—have cited widespread lower speed limits as a key tactic, complemented by compliance measures that include lower design speeds and increased automated enforcement.

Many cities in Canada are lowering speed limits with a focus on residential streets. For example:

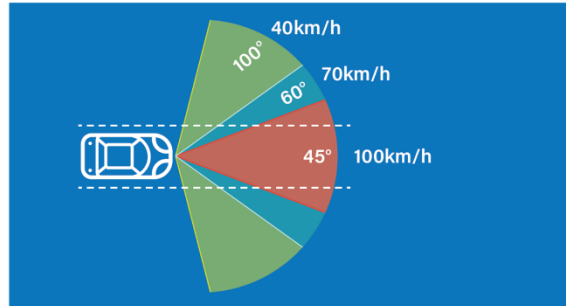
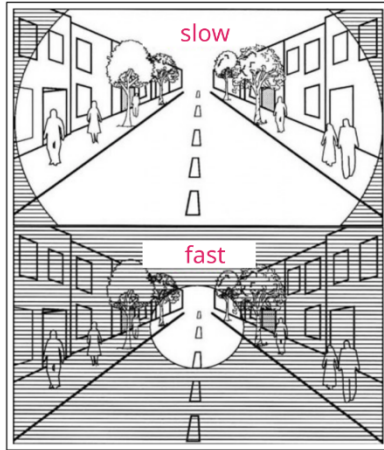
- Since 2020, Toronto has lowered speed limits for all road types across the city. The work is ongoing through 2028, as the City continues to reduce speed limits on residential streets to 30 or 40 km/h.³⁰
- Montreal began lowering speeds to 30 km/h on residential streets in 2018, with each borough leading their own implementation.³¹
- Vancouver has a long history of reduced speed limits on local street greenways and near schools and playgrounds. In 2025, Council approved making all local streets 30 km/h.

Increasingly, Canadian jurisdictions are also reducing speed limits on major streets. For example:

- In 2021, Edmonton reduced the speed limit on most residential and downtown roads from 50 to 40 km/h as part of its Vision Zero strategy. This initiative resulted in 25% fewer collisions and 31% fewer injuries and fatalities, and reduced speeds in most locations.³²
- In late 2024, the City of Victoria—which had already set local streets to 30 km/h—[decided to make almost all major streets 30 or 40 km/h](#)³³, with the only exceptions being six lane arterials outside of their downtown.
- In early 2026, [Squamish lowered speed limits](#)³⁴ throughout the downtown and waterfront area to 30 km/h.

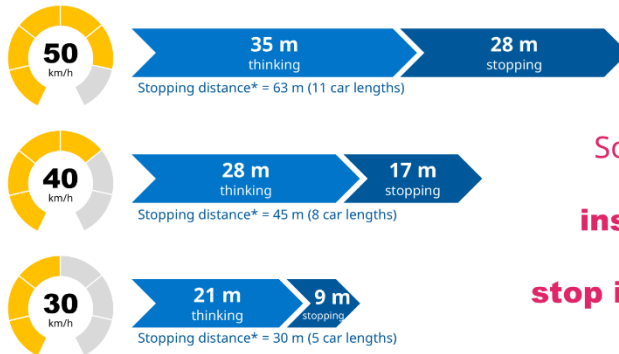
How lower speeds reduce the likelihood and severity of a crash

Fewer crashes from improved peripheral vision



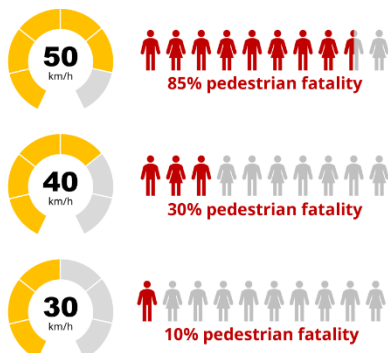
People driving slower can see more

Fewer crashes from shorter braking distances



Someone driving at **30 km/h** instead of **50 km/h** can stop in half the distance

Less severe impacts when collisions do occur



Force increases exponentially with speed.

A person hit by a car at **30 km/h** instead of **50 km/h** is **over 8 times more likely to survive**

Figure 14. Reducing speeds significantly reduces the number and severity of collisions. When drivers reduce their speed from 50 to 30 km/h, stopping distance is reduced by 50%.³⁵ and peripheral vision is also improved, reducing the likelihood of a crash. When collisions do occur, they tend to be much less severe: according to the World Health Organization,³⁶ pedestrians are 8.5x more likely to survive a collision with a vehicle traveling at 30 km/h vs 50 km/h. Force of impact increases exponentially with speed, so even small reductions can make a significant difference. Adapted from the World Health Organization³⁶ and the Transportation Association of Canada...³⁷

30 km/h by default: approved regional direction and global best practice

[Transport 2050²](#) (2022), TransLink's regional transportation plan, includes a long-term vision where default speed limits would be reduced to 30 km/h or less, with higher speed limits only on a case-by-case basis, on streets with additional safety measures including signalized crossings, wider sidewalks, protected active lanes and transit priority lanes. To help improve compliance, the plan also includes explicit direction supporting people-first street designs and increased automated enforcement.

TransLink's regional direction is consistent with international best practice guides such as Global Designing Cities Initiative's [Designing for Safe Speeds](#)³⁸ (2025). In general, the guide calls for 30 km/h as an appropriate default speed limit for most city streets, with even lower speeds in shared street environments with high pedestrian activity, and higher speed limits only acceptable for specific corridors with lower pedestrian activity and good physical protection for vulnerable road users.

Challenges related to reduced speed limits

Lower speed limits are most effective when there are complementary design, enforcement and education measures in place to encourage increased compliance.

There are several challenges that add complexity to lowering speed limits:

- Most major streets are currently designed for higher speeds, and retrofits can be costly. To help address this, 'lighter, quicker, cheaper' design approaches can be advanced, coordinated with other road work to minimize costs.
- The City's arterial traffic calming toolkit is currently limited, in part due to concerns regarding potential impacts to buses, trucks, and emergency vehicles, as well as general vehicle movement. For example, vertical deflection tools such as speed tables can have an adverse effect on bus passenger comfort, and narrowing lanes can prove challenging for large vehicles with wide turn radii. The City will continue to work with partners including TransLink, Coast Mountain Bus Company, emergency service providers and goods movement organizations to advance designs.
- Complementary design changes that reduce motor vehicle capacity (e.g. lane reallocation) must be balanced with the need for moving people and goods.
- In the absence of self-reinforcing street design, enforcement is critical. However, local enforcement resources to address speeding concerns are limited. Intersection safety cameras (ISCs) are a proven tool that has addressed this issue in other jurisdictions, but an expanded ISC program is outside municipal jurisdiction and requires support from the Province.
- Provincial support is also required to advance lower default speed limits (e.g. a 30 km/h blanket speed limit unless otherwise marked), which would help reduce implementation costs and provide clarity to drivers. At present, deviations from the Provincial standard (50 km/h unless otherwise marked on urban streets) require nearby signs to be enforceable.
- There may be perception amongst some members of the public that lower speed limits will reduce quality of life and harm the economy by increasing travel times. However, as noted earlier lower speed limits in complex urban areas can improve traffic flow and make travel times more predictable, with a negligible impact on overall travel times.

[Automated Enforcement – Victoria, Australia](#)

Australia is often hailed as a leader in using automated enforcement to improve road safety. The state of Victoria—which has a population of about 7 million people and includes the major city of Melbourne—publishes detailed information about their camera program.

Highlights include:

- *Many cameras for ubiquitous enforcement.* There are over 320 cameras at fixed locations, plus over 2,000 additional approved locations for mobile cameras...³⁹
- *An 'anywhere, anytime' enforcement strategy.* The mobile cameras are frequently moved, and sometimes mounted on moving vehicles...⁴⁰, making their presence unpredictable.
- *Modest ticketing thresholds.* Starting in 2002, tickets were issued to drivers traveling less than 10 km/h over the speed limit, and today there is an implied threshold of just 3 km/h over the limit...⁴¹
- *More than just speeding.* Automated enforcement is also used for other infractions such as distracted driving and seatbelt violations.
- *Directing revenue toward safety in a transparent manner.* Revenue is wholly reinvested in the Better Roads Victoria Trust to fund road projects and road safety initiatives, with a complete list of projects available online through the Transport Victoria website. In the 2023-2024 fiscal year, fines from road safety cameras totaled \$473 million (AUD)...⁴²

The number of cameras and low ticketing threshold go beyond catching 'super-speeders' to create a culture of widespread compliance. As of June 2025, Victoria has reported a compliance rate of 99.96 per cent at fixed camera locations and 99.3 per cent from mobile cameras...⁴³

Highlights: Recent Accomplishments

Below are some recent highlights in Vancouver regarding *Safe Speeds*.

[School Slow Zones on Arterials Program](#)⁴⁴

- In 2023, the City launched a pilot to reduce speed limits on major streets in nine school zones during school hours (8am to 5pm). Prior to this, lower speed limits in school zones were only implemented on local streets. Affected school zones have their speed limits reduced from 50 to either 40 or 30 km/h, depending on whether the street is classified as an arterial or collector street.
- Data collected during the pilot indicated a decrease in both average speeds (up to 13% reduction) and 85% percentile speeds (up to 14% reduction), suggesting a significant safety benefit: according to the World Health Organization, every 1 km/h decrease in speed results in a 3% decrease in crashes that result in an injury and a 4-5% decrease in fatal crashes.⁴⁵ Over 90% of surveyed parents supported the changes, with 70% feeling that students were safer and 50% feeling students were more likely to walk or bike to school.
- Based on the pilot's success, the program is being expanded to 10 to 15 more schools each year, with 33 School Slow Zones covering 40 schools completed by the end of 2025.

[30 km/h neighbourhood slow zones: from pilot to citywide program](#)

- Vancouver has had long-standing policy to lower speed limits on local streets, as well as a practice of setting lower speed limits on local street greenways and near schools and playgrounds.
- In 2020, the City began testing reduced speed limits at a neighbourhood scale, through a slow zone pilot in two neighbourhoods. These were implemented in the Grandview-Woodland neighbourhood using speed limit signs on every local street block, and in the Strathcona neighbourhood using gateway signage (i.e. limited signage where drivers enter local streets from arterials). At the same time, the bylaw was changed to make reduced speed limits on local streets all-day, every day around schools and playgrounds rather than just during school hours.
- In 2025, Council approved reducing the speed limit on all local streets (i.e. streets without a centre line) to 30 km/h, complemented by signage at neighbourhood gateways and other key locations. A phased signage rollout is taking place, prioritizing areas with design features that reinforce lower speeds.⁴⁶

[Advancing speed humps and raised crossings](#)

- Complementing the 2025 direction to lower speed limits on local streets, the City streamlined its speed hump program by removing requirements for public consultation.⁴⁷ The reduced limits mean that many more locations will likely qualify for speed humps, since the process benchmarks observed speed against the speed limit to determine whether one is needed.
- The City has implemented vertical deflection measures such as speed tables and raised intersections on a small number of non-local streets, including those with transit routes. Recent examples include a [raised intersection at the intersection of Robson and Bute streets](#)⁴⁸ (2025) as well as speed tables on Keefer Street between Abbot and Carrall streets, and Adanac Street between Kootenay and Skeena streets. Locations and designs were reviewed with transit and emergency service providers and serve as valuable precedents to inform an expanded traffic calming toolkit for major streets.
- In two Neighbourhood Traffic Management Plans, new low-cost crossing treatments are being piloted to encourage drivers to slow down and yield to pedestrians when approaching an intersection. Two types were installed earlier in 2026. One simplifies the standard raised crosswalk design by not tying into the curb. The other places a speed hump immediately in advance of the crosswalk.

Key Strategies

1.1. Set safe speed limits on local streets.

- a. Set the default speed limit for all minor streets (streets without a centre line) to 30 km/h.
 - i. Reinforce lower speed limits with signage at neighbourhood gateways (i.e. at local street entry points from major streets), on local street greenways, and near schools and community destinations.
 - ii. Prioritize signage in areas that have implemented traffic management plans and continue to expand to all local streets across the city.
- b. Consider lower speed limits (e.g. 10 to 20 km/h) for special placemaking streets that prioritize public life and pedestrian activity, such as curbside 'play streets' or sections of the seawall that require limited motor vehicle access for loading and deliveries.

1.2. Set safe speed limits on major streets.

- a. Reduce the speed limit to 30 or 40 km/h on select arterial and collector streets.
 - i. Prioritize locations with high pedestrian activity, including the Downtown peninsula, busy shopping streets, and near schools, parks, and playgrounds, and considering locations with a significant traffic injury history.
 - ii. Consider design factors such as the number of travel lanes per direction, lane widths, curbside friction (such as high turnover on-street parking or buses stopping in the travel lane), and existing or planned modifications to reduce design speed.
See Table 6 below for more details.
- b. Consider a citywide blanket speed limit reduction (e.g. 30 km/h unless otherwise posted) if and when Provincial regulations allow it.

1.3. Encourage appropriate speeds using traffic calming treatments and street configurations.

- a. Expand the [Neighbourhood Traffic Management Program](#)⁴⁹ and [School Active Travel Program](#)⁵⁰ to manage motor vehicle volumes and speeds in more residential areas, and to improve safety for vulnerable road users.
Cross reference with Safe Streets 2.3.c.
- b. Expand the speed hump program to reinforce reduced speed limits in more locations.
- c. Emphasize speed transitions where speed limits change, for example through signs, curb extensions, and/or vertical deflection such as continuous sidewalks, raised intersections and speed humps.
- d. Expand the traffic calming toolkit, including measures to support speed reduction on major streets, while considering impacts to buses, trucks, emergency services, and people-moving capacity.
- e. On busy bus corridors, implement transit priority measures alongside reduced speed limits where feasible, considering measures such as dedicated lanes, in-lane stops, signal priority and queue jumpers.

See [Design Toolkit](#) for more details.

1.4. Adjust traffic signal timing to encourage safe travel speeds.

- a. Implement a slower 'green wave' signal progression where possible, adjusting traffic signal timing to encourage lower speeds when speed limits are reduced.

1.5. Work with the Province to expand safety camera enforcement and enable blanket speed limits.

- a. Continue to advocate for provincial legislative changes to allow for lower blanket speed limits, e.g. enabling municipalities to set their own default limits or lowering urban defaults province-wide.
Cross-reference with Safe People 3.2.d.
- b. Continue to advocate to the Province for an expanded intersection safety camera program, incorporating best practices such as:
 - i. prioritizing locations with high pedestrian activity and/or significant traffic injury history;
 - ii. deploying cameras in many locations with a modest ticketing threshold speed to support rapid behaviour change and enhanced safety benefits;
 - iii. using ticket revenue to self-sustain the program and help fund safe infrastructure and programs; and
 - iv. committing to a high-level of transparency to support public buy-in, including clear communication of locations, ticketing threshold speed, and how revenue is used.

Table 6. Speed limit framework for major streets (arterials and collectors) in the City of Vancouver. This framework is intended as a guideline only, as many conditions impact appropriate speed limits.

SPEED LIMIT FRAMEWORK – MAJOR STREETS			
# OF TRAVEL LANES per direction	DOWNTOWN	OUTSIDE DOWNTOWN	
		BUSY PEDESTRIAN AREAS including (a) shopping streets and (b) next to schools and parks	OTHER
1	30 km/h	30 km/h	40 km/h
2	40 km/h	40 km/h	50 km/h
3	40 km/h	40 or 50 km/h	50 km/h
<i>* Lower speed limits will also be considered for high injury locations on a case-by-case basis</i>			
Near-term prioritization early candidates	Downtown peninsula (beginning with busiest shopping streets, e.g. Robson, Denman, Davie, Water, Alberni) Outside downtown – top three 30 km/h shopping streets Outside downtown – top three 40 km/h shopping streets Outside downtown – top three 40 km/h residential streets		
Complementary tools could include	<ul style="list-style-type: none"> ▪ Road diets (reducing travel lanes) ▪ Retiming signal progression to support a slower 'green wave' ▪ Crossing improvements in busy pedestrian areas ▪ Horizontal deflection (frequent medians, adding curvature) ▪ Quick build intersection daylighting ▪ Vertical deflection on lower speed streets ▪ High injury locations – consider all tools including redesign 		

2. Safe Streets

Background

Safe streets are designed to encourage safe behaviour. They use environmental design to make caution the default, creating cues so that most people naturally and intuitively travel in a safe manner. When mistakes do occur, they are designed to be forgiving, protecting the most vulnerable users and reducing the potential for high-severity crashes. Because they are safe for the most vulnerable road users, they are safe for everyone.

Safe streets are also better places for *people*, transforming high-speed thoroughfares into welcoming places that are comfortable for people of all ages and abilities. They encourage more walking and cycling, leading to healthier lifestyles and increased personal security from more 'eyes on the street.' Slower travel speeds and reduced motor vehicles volumes create quieter, more peaceful sidewalks and public spaces, supporting mental well-being and human-scaled interactions. Paired with destination-rich land use and human-scaled urban design, safe streets become places to linger, boosting street vitality and supporting local business.

The City has significant control over how road space is allocated and how streets are designed and maintained. This responsibility is shared with TransLink for streets that are part of the [Major Road Network \(MRN\)](#)⁵¹—arterials deemed significant for moving large numbers of people and goods at a regional scale.

[Designing with safety in mind](#)

The City uses several sets of standards to inform street designs, which are generally reflected in the City's [Engineering Design Manual](#).⁵² The [Transportation Association of Canada \(TAC\) Geometric Design Guide for Canadian Roads](#)³⁷ is a source for basic design principles. Designs are also informed by global best practices such as those found in documents by the Dutch-based [CROW](#)⁵³ and the U.S.-based [National Association of City Transportation Officials \(NACTO\)](#),⁵⁴ with adaptations to fit the local context as appropriate.

Designing, building, and retrofitting streets requires time and resources, so changes cannot take place overnight. With a limited budget, it is imperative to take a data-informed approach to prioritize locations and choose the most cost-effective safety measures.

Delivering safety improvements in coordination with other projects such as utility work, repaving and development can help reduce costs and minimize construction disruption to nearby residents and businesses.

[Select Traffic Safety Design Toolkit](#)

Table 7 highlights many of the road safety design tools and strategies used by the City of Vancouver, as well as emerging best practices from other jurisdictions. It is not intended to be an exhaustive list. The City is committed to advancing people-first safe street designs, adapting new design practices to the local context.

Table 7. Select Traffic Safety Design Toolkit

SELECT TRAFFIC SAFETY DESIGN TOOLKIT	
Street Right-Sizing	
<i>Right-sizing streets encourages lower traffic speeds and makes it easier for pedestrians to cross the street. Reallocated space can be used to support safer mobility for vulnerable road users.</i>	
Minimized lane widths	Narrow lanes discourage speeding by requiring more careful driving. Considerations must be made to accommodate larger vehicles that routinely use the lane.
Reduced number of lanes	Narrower roadways reduce vulnerable road user exposure to traffic when crossing the street. Streets with a single travel lane per direction are especially helpful in reducing travel speed, since when drivers travel single file, the slower traffic helps set the pace.
Safe sustainable mobility	Reclaimed road space from 'road diets' can be used to support safer sustainable mobility, e.g. building protected active travel lanes on busy streets, widening or buffering sidewalks, and/or creating bus lanes to improve transit reliability.
Vertical Deflection Tools	
<i>Vertical deflection tools create localized elevation changes to the road that require motorists to reduce speeds to navigate comfortably. Regularly spaced deflection tools can encourage lower speeds across the length of a corridor. Emergency and transit vehicles are an important consideration.</i>	
Continuous sidewalks	Raised crossings that 'continue' the sidewalk along a major street across driveways and minor intersections, creating a smooth, level, uninterrupted surface that prioritizes pedestrians. Also act as a traffic calming measure by requiring turning motorists to slow down and yield (~10 km/h design speed).
Raised crosswalks and plateaus	Raised crossings across major streets that prioritize pedestrian movement while slowing down motor vehicle traffic (~30 km/h design speed). Plateaus are similar treatments applied over a longer road segment.
Raised intersections	Raised intersections raise the entire intersection, creating a sense of place and communicating pedestrian priority. Vertical deflection helps enforce safe speeds and motorist yielding behaviour.
Speed humps and cushions	A versatile deflection tool to reduce speeds. They can be placed at almost any mid-block location, and the gradient can be adjusted based on design speed. Cushions are specialized humps with wheel cut-outs to allow large vehicles like buses to pass unaffected, increasing passenger comfort while reducing car speeds.
Horizontal Geometry Tools	
<i>Horizontal geometry tools create lateral shifts in a vehicle's path. Drivers slow down to comfortably navigate the device or to negotiate right-of-way.</i>	
Corner bulges and curb extensions	Corner bulges have multiple safety benefits, including making it easier for pedestrians to cross the street by narrowing curb-to-curb crossing distance, acting as a pinch point that slows turning motor vehicles, and improving visibility for everyone.
Right-sized corners	Intersection corners should be relatively tight to limit turning motor vehicles to 15km/h or less where possible, and to provide more room for protected intersections, pedestrian refuges, and other safety features. Larger vehicles may need to mount over lower curbs or aprons, or straddle two lanes when turning.
Left-turn calming	Medians or curbs added to the centreline at select intersections to reduce the speed of left-turning drivers.
Pinch points	A narrowing in the roadway that requires drivers in both directions to take turns to pass each other.
Lane shifts and chicanes	Curves or bends in the road that require drivers to reduce speed to navigate comfortably.
Refuge islands and medians	Can serve multiple purposes, encouraging through-moving traffic to slow down, calming left turns, and providing a refuge for pedestrians and other vulnerable road users crossing the street.
Traffic circles	Circular islands placed in the centre of residential intersections, requiring all road users to slow down and yield, as they navigate around.
Other Intersection Tools	
<i>There are a variety of intersection tools that reduce conflicts and make it easier and safer for vulnerable road users to cross the street, for example by reducing the crossing distance, providing more time to cross, or improving corner clearances for better visibility.</i>	
Protected intersections	Intersections that physically separate people walking and cycling from motor vehicle traffic, significantly improving safety for vulnerable road users. Features include corner islands, set-back crosswalks, and separate signal phases for different road users and movements.
Corner clearances / intersection daylighting	Intersection visibility can be improved by requiring motor vehicles to stop or park further from the intersection or crossing. This allows all road users to see potential conflicts more easily. Enhanced corner clearances can be achieved through bylaw changes and/or signage, and further enforced with physical measures like curb extensions, planters or paint-and-bollards.

SELECT TRAFFIC SAFETY DESIGN TOOLKIT

Dedicated turn bays	Dedicated turn bays improve safety by discouraging lane weaving and physically separating turning traffic from faster through-traffic. They can be used to help maintain vehicle flow in conjunction with road diets that reduce the number of through travel lanes, and enable protected signal phasing.
Crosswalk markings	Crosswalk markings for pedestrians can range from basic parallel lines to enhanced markings such as zebra crossings for increased visibility. For cycling routes, green paint can be used at intersection and driveway crossings to alert all road users of conflict zones. Slip resistance, reflectiveness, and durability should all be considered when selecting paint material.
Traffic signals and operational tools	
<i>Operational tools alter and enforce rules that affect the movement and right-of-way of different street users. They can be used to encourage safe driving speeds, enforce the right-of-way at conflict points prioritizing the safety of vulnerable road users, and limit motor vehicle access on certain streets.</i>	
Traffic diverters (modal filters)	Traffic diverters restrict motor vehicle movements while allowing movement for pedestrians, cyclists and emergency services. Used to limit motor vehicle volumes on local street greenways and other neighbourhood streets. Designs range from simple barriers to full closures that create additional room for public space or green infrastructure.
Traffic signals	Traffic signals assign right-of-way to movements at an intersection, providing clear indications to users when to proceed. Pedestrian and bike signals allow people walking and cycling to safely cross a street. Traffic signals may be set on a timer ('fixed time') or actuated by pedestrians or other road users, and can include accessibility features for people who are hard of hearing or low vision.
Rectangular Rapid Flashing Beacons (RRFBs)	Flashing lights to support safe pedestrian crossings that are significantly lower in cost than a traffic signal. Suitable for streets with narrow crossings and/or lower vehicle speeds and volumes.
Leading Pedestrian Intervals (LPIs)	'Walk' signal timing that gives pedestrians a 3 to 7 second head start ahead of motor traffic when crossing at an intersection. Some jurisdictions also allow LPIs to be used by people cycling and using micromobility via legislation, signage, and/or dedicated cycling signal heads.
Pedestrian countdown timers	Provide a visual countdown, indicating how much time pedestrians have remaining to cross the street before the light changes.
Signal time to cross	"Walk" signal time can be increased to account for slower walking speed, providing more time for people to cross the street.
Protected turns	Traffic signal phases that provide dedicated time for turning vehicles, stopping other movements. Safety is improved by eliminating conflicts with opposing traffic and pedestrians.
Left-turn restrictions	Often applied to ban left turns from a multi-lane arterial onto a select minor street. Improves safety by discouraging drivers from 'shooting the gap' across oncoming traffic and into busy crosswalks, and by reducing local street short-cutting.
No Turn on Red (NTOR)	Addresses a common safety issue: when turning right at a red light, driver attention tends to focus on other motor vehicles coming from the left to find a suitable gap in fast-moving traffic. This results in a lack of attention as they roll into crosswalks occupied by pedestrians and/or other road users. NTOR is selectively applied by municipalities in British Columbia, but is applied citywide in many other jurisdictions including New York, Washington DC, Montreal, and the EU.
Signal progression (green wave)	Traffic signals can sometimes be coordinated along a corridor to reward road users travelling at an appropriate speed with a continuous 'green wave.'
Speed radar displays	Reader boards that display approaching vehicle speed, notifying drivers when they are travelling too fast.
Automated enforcement	Intersection safety cameras that enforce traffic regulations such as speeding, red light running and access to bus lanes. In BC, automated enforcement is under Provincial jurisdiction and limited to relatively few locations.
Technological advancements	Detection and control technologies can enable signals to adapt in real time, such as increasing walk times for slower pedestrians, allowing extra time for transit vehicles, or making adjustments to optimize traffic flow.

[Toolkit highlight: protected intersections](#)

Protected intersections are a type of intersection designed to be safe for everyone, eliminating conflicts between people walking, cycling and driving through physical protection, improved visibility, and dedicated signal phasing (i.e. not allowing motor vehicles to turn while pedestrians or cyclists are in the intersection). Vancouver built its first protected intersection at the south end of the Burrard Bridge in 2013/2014 as part of larger active travel improvements to the bridge, with features including: (a) the removal of channelized right-turn 'slip lanes' (a source of rear-end and sideswipe motor vehicle collisions), (b) the addition of protected signal phases for different road users and turn movements, and (c) increasing separation between people walking, biking, and driving, including the addition of protected bike lanes.

In 2017, the City made similar improvements to the Burrard-Pacific intersection at the north end of the bridge, addressing the second highest collision location in the city at the time. Before-and-after studies have shown significant safety improvements for all modes of transportation, including:

- A 44% reduction in motor vehicle-motor vehicle conflicts⁵⁵
- A 95% reduction in conflicts between motor vehicles and people walking or cycling⁵⁵
- A 71% reduction in ICBC-reported collisions, from over 140 per year (2009-2013) to about 40 per year (2020-2024).⁵⁶

The safety improvements have led to a significant increase in people walking, cycling and rolling over the bridge, a reduction in cyclists riding on the sidewalk (by giving them a dedicated safe space), and more predictable travel times for all modes due to fewer collisions. Based on the positive results at this and other locations, protected intersections are now a key component of the City's 'All Ages and Abilities' active travel design approach.

[Toolkit highlight: protected turns](#)

Fully-protected turns are designed to eliminate conflicts between turning vehicles and pedestrians, cyclists and other drivers traveling straight ahead. They use dedicated turn bays and turn signal displays to separate the 'turn' and conflicting 'straight through' movements. During the protected turn phase, a steady green arrow gives turning drivers the right-of-way while road users traveling straight ahead are stopped by their own red light. Once the green arrow ends, turning drivers receive a red light, requiring them to stop and wait until the green arrow re-activates.

Fully-protected turns are not always possible since they usually require a separate turn lane and signal display, but are especially helpful along streets with high volumes of pedestrians, cyclists, and turning vehicles, as well as at larger intersections where it is difficult for drivers to judge whether it is safe to turn due to site characteristics or volumes and speeds of opposing traffic. Conflict analyses at select locations highlight their benefits. For example, fully-protected right turns on Smithe Street at Beatty Street and Quebec Street at E 2nd Ave (both implemented as part of complete street designs featuring protected bike lanes) reduced conflicts between motorists and people cycling by 67% and 86% respectively.

A trade-off for protected turns is that they may lengthen the overall signal cycle length, requiring a longer wait between crossing opportunities.

[Toolkit highlight: road diets](#)

A road diet is a street redesign that reduces the number of general-purpose travel lanes and/or the width of travel lanes to calm traffic, lower speeds, reduce crashes, and create space for other uses such as wider sidewalks, active travel lanes, green infrastructure, or public space.

Even relatively simple road diets have significant safety benefits. A U.S. Department of Transportation report found that converting four-lane arterial streets (i.e. two lanes per direction) into three lane streets (one lane per direction, plus a centre lane for left turns) reduces crashes by 19 to 47%.⁵⁷ Depending on how the excess road space is repurposed, there may also be significant benefits for people walking, biking or taking transit.

Road diets can be relatively low cost if planned and delivered in conjunction with repaving or other road reconstruction.

Highlights: Recent Accomplishments

Below are some recent highlights in Vancouver regarding *Safe Streets*.

Safety infrastructure programs

- The City systematically delivers proven safety improvements through spot infrastructure and countermeasure programs, using a data-informed approach to prioritize locations:
 - *New or upgraded signals* provide safe crossing opportunities for all modes of transportation. As of May 2026, there are 515 full traffic signals and 403 pedestrian/bike signals.
 - *Rectangular Rapid Flashing Beacons (RRFBs)* provide safe pedestrian crossings on streets with lower traffic volumes at a lower cost compared to conventional signals. A 2016 pilot at three locations found that driver yielding behaviour increased from 50% to 98%, informing the development of a regular program. RRFBs have now been installed in over 70 locations across the city.
 - *Leading pedestrian intervals (LPIs)* give pedestrians a 3 to 7 second head start crossing the street before the signal turns green for motor vehicles. Vancouver’s first LPI was installed in 2014, and a regular program was developed following an expanded pilot that showed a 12 to 20% reduction in driver-pedestrian conflicts. LPIs have been installed at 124 locations in the city as of May 2026.
 - *Increased crossing times for pedestrians* are prioritized at locations with high populations of children or older persons so they have time to safely cross the street. Walk signal timing is being updated to meet a 0.8m/s walking speed for intersections within one block of schools and senior homes.
 - *Protected turn phasing* helps eliminate conflicts between turning vehicles and other road users by separating each movement in time. This is a proven strategy to address collisions involving left-turning vehicles, the most common type of collision involving pedestrians.
 - *No-turn-on-red (NTOR) restrictions* help reduce collisions between right-turning vehicles and other road users at signalized intersections. In particular, they help prevent a common scenario involving a driver turning right at a red light who is looking left for a gap in traffic, who fails to check again for pedestrians or other road users coming from the right. At present, the City implements NTOR at all movements crossing two-way bike facilities and locations with protected right turns, as well as on a case-by-case basis based on collision history, sight lines, street geometry, topography and other factors.
 - *Vertical deflection* such as speed humps and raised crossings help to slow down traffic. Speed humps are added to about 15 to 20 blocks per year through a dedicated program, with additional locations delivered through specific active transportation and neighbourhood traffic calming projects.
- These upgrades will continue to be delivered across the city based on available budget, and new tools will be piloted and regularized based on their success.
- *Table 8* below highlights specific measures that have been consistently tracked in recent years.

Table 8. Select safety infrastructure programs

New Infrastructure or Intervention	2021	2022	2023	2024	2025
Signals (full or pedestrian/cyclist activated)	5	2	3	5	9
Rectangular Rapid Flashing Beacons (RRFBs)	9	10	8	8	11
Increased crossing time for pedestrians	29	31	22	24	41
Signal accessibility upgrades (e.g. audible signals)	14	13	14	11	30
Leading pedestrian intervals (LPIs)	12	16	14	15	33
Protected turn phasing	7	16	8	4	2

[Making the False Creek Bridges safe to cross for all modes](#)

- The Burrard, Granville, and Cambie Street bridges were designed to support high volumes of motor vehicle traffic, and featured narrow and shared sidewalks that made it difficult and unpleasant to cross on foot or by bike. A key objective from Transportation 2040 was to improve walking and cycling connections on each bridge, and by 2025 significant safety improvements were completed on all three bridges.
- Significant upgrades to the **Burrard Bridge** and surrounding areas were completed in 2009, 2014, and 2017. This included wider sidewalks, new protected bike lanes, removal of high-collision slip lanes, and protected intersections for all road users. The Burrard-Pacific intersection was previously the second highest collision location in the city, but experienced a 95 per cent reduction in conflicts between motor vehicles and people walking or cycling⁵⁸ and a 71 per cent reduction in ICBC-reported collisions.⁵⁶
- The **Cambie Bridge** featured a shared sidewalk for people walking and biking on the east side of the bridge, but conflicts were high. In 2018 a motor vehicle lane was converted into a southbound protected bike lane, which improved safety on one of the busiest routes into downtown. There were additional improvements on both side of the bridge, including protected bike lanes and signal phasing on Smithe and Nelson Streets, and better connections from the bridge to Olympic Village Station.
- The **Granville Bridge** was planned as part of a freeway that was never built, and was the most challenging bridge for people walking and cycling to cross. In 2025, Phase 1 of the Granville Connector opened to provide a safe, accessible, and seamless route for people walking, biking, and rolling over False Creek. It includes a new protected bike lane and walking path on the west side of the bridge, as well as new traffic signals and protected bike lanes at the foot of the bridge to support safe travel.

[Neighbourhood Traffic Management Program \(NTMP\)](#)

- Vancouver's [Neighbourhood Traffic Management Program](#)⁴⁹ (NTMP) was launched in 2022 to calm traffic in neighbourhoods across the city.
- A variety of durable, quick-build traffic calming tools—such as speed humps, enhanced crosswalks, one-way diverters and curb bulges—are used to reduce shortcutting on local streets, encourage people to drive more slowly, and make streets safer to walk, bike and roll.
- The program selects one to two neighbourhood a year, prioritizing improvements in areas with a history of pedestrian and cyclist collisions on local streets, with higher numbers of residents more likely to be seriously injured or killed walking or biking (children, older adults, and people with disabilities), where there are more local destinations that people are likely to walk or bike to (schools, libraries, parks, community centres), and with more people driving on local streets.
- A detailed community engagement process takes place to understand local issues, opportunities, and access needs, and durable, quick-build materials are used to allow for rapid delivery.
- As of 2026, five neighbourhoods had projects complete or underway, including Hastings-Sunrise (Adanac Overpass), Hastings-Sunrise (Clinton Park), Killarney, Strathcona, and Moberly Park. Upcoming areas include Joyce-Collingwood, and Trout Lake / Clark Park.

Key Strategies

2.1 Address high danger hotspots and corridors for all modes.

- a. Prioritize locations with a significant serious injury history, particularly vulnerable road users, using proven safety treatments such as leading pedestrian intervals, protected turn phases, turn restrictions, shortened and enhanced crossings, vertical deflection, horizontal geometric changes, road dieting and improved lighting.
- b. Consider new tools based on evolving best practices, informed by experiences elsewhere and conducting before-and-after assessments where necessary to understand effectiveness in the local context.
- c. Consider equity factors when prioritizing projects, such as locations with higher numbers of older persons, children, and/or historically marginalized peoples.

See [Design Toolkit](#) and *Post-Crash Response 5.3* for more details.

2.2 Build a comprehensive safe active travel network for people of all ages, abilities and backgrounds.

- a. Provide a dense active travel network throughout the city, with direct and convenient access to destinations including neighbourhood centres, employment areas, shops and services, transit stations, community centres, schools and parks.
- b. Prioritize new routes and route upgrades per a regularly updated [Active Mobility Plan](#),⁵⁹ while also leveraging opportunities through development and other street construction projects.
- c. Use context-sensitive designs, including protected lanes on busy streets with higher motor vehicle speeds and/or volumes, and traffic calming and diversion on local streets to ensure low motor vehicle speeds and volumes.

See the City's [All Ages & Abilities Design Guidelines](#).⁶⁰ for more details.

- d. Consider low-cost interim approaches for rapid delivery that can be upgraded over time as streets are rebuilt.
- e. Consider e-bikes, e-scooters, adaptive bikes, and other emerging forms of active transportation in infrastructure design, recognizing different travel speeds, sizes and behaviours may require additional width for passing.

2.3 Build and retrofit streets to be safe and accessible.

- a. Design and build all new streets to be safe and accessible, including protected active lanes on major streets where possible.
- b. Where feasible, integrate safety improvements into capital projects that involve major roadwork (e.g. repaving) and in coordination with agency partners and redevelopment. Depending on the scale of the project and available budget, consider both low cost 'quick wins' (e.g. paint, signage) and/or more substantial works (e.g. curb realignment, signal upgrades, raised crossings, continuous sidewalks).
- c. Expand the [Neighbourhood Traffic Management Program](#)⁴⁹ and [School Active Travel Program](#)⁵⁰ to manage motor vehicle volumes and speeds in more residential areas, and to improve safety for vulnerable road users.

Cross reference with Safe Speeds 1.3.a.

- d. Improve intersection safety through measures that slow down turning vehicles, reduce conflicts between road users, improve visibility, and make it easier for vulnerable road users to cross the street, using safety data to prioritize locations and choose the most appropriate interventions.
- e. Continue to advance 'people-first' street designs, adapting and evolving best practices to local conditions.
 - i. Regularly update the [City's Engineering Design Manual](#)⁵² to ensure learnings and best practices become standard practice within the local context.
 - ii. Update standard practices such as enhanced crosswalk markings, continuous sidewalks along major streets (across local streets), tighter corner geometry and increased stopping and parking clearances.
- f. On transit corridors, ensure any traffic calming is implemented in ways that are compatible with bus operations and minimize impacts to bus travel times, customer experience and ride comfort.
- g. Explore lower cost 'quick build' approaches to deliver street and intersection improvements, such as extruded curbs, concrete barriers and pin-in-place traffic calming curbs.

See [Design Toolkit](#) for more details.

2.4 Maintain streets and road markings in a state of good repair

- a. Regularly assess paving quality, maintaining streets and sidewalks to a safe standard and rapidly responding to identified safety hazards.
- b. Regularly assess and maintain the visibility of crosswalks and other road markings, such as centre lines, lane lines, stop bars, bus lanes, and bike lane conflict areas.
- c. Implement maintenance and cleaning guidelines for streets and paths, prioritizing major streets, transit routes, busy sidewalks, and active travel routes with high ridership.
- d. Provide safe, intuitive options for people to travel through or around construction zones. Consider the overall network to ensure multiple construction detours do not result in confusion.

3. Safe People

Background

Safe people using the road are alert, unimpaired, and follow traffic regulations. They take steps to improve their safety and the safety of others, with extra care given to those who are more vulnerable.

The City works with key partners such as the Insurance Corporation of BC (ICBC), Vancouver Police Department (VPD), and community education providers to support safe people in a number of ways: educational programs that teach safe and respectful behaviour across all modes, promotional campaigns to raise awareness and encourage sustainable transportation choices, and legislation and enforcement practices that target dangerous conduct.

Supporting safe travel through education and promotion

Education and awareness programs are important to improve safety, reduce conflicts, and encourage respect across people using all forms of transportation.

Improving driver training and awareness requires a multi-pronged approach. Placing greater emphasis on vulnerable road users in driver training and testing, which falls under Provincial jurisdiction, can help increase driver awareness, vigilance, and expectations of people walking and biking. Safety campaigns delivered by partners including ICBC and local police can raise awareness about particularly dangerous behaviours, such as speeding, distracted driving, impaired driving, or passing too close.

Few people in North America have formal training when it comes to cycling or other forms of micromobility, especially in traffic. As a result, many people are afraid to ride on city streets, those that do are sometimes singled out for not following the rules of the road or riding in an unsafe manner.

The most effective way to provide universal cycling skills training is to incorporate it into the school curriculum. By focusing on children, we can inspire the next generation to cycle more frequently, teaching safe behaviour and building lifelong healthy habits. Providing training for adults is also important, especially to people that are under-represented in the cycling population (such as women and new Canadians), or who face socio-economic barriers. Educational programs complement infrastructure investments and improve compliance with rules and regulations.

In recent years, the City has helped fill this gap by providing funding to partners including HUB Cycling and Better Environmentally Sound Transportation (BEST) that specialize in delivering active travel education to people of all ages and backgrounds. The City also supports safe active travel habits through a wide range of promotional tactics outlined in the [VanGo Program](#).⁶¹

[The School Active Travel Program \(SATP\)](#)

[The School Active Travel Program \(SATP\)](#)⁵⁰ is a partnership between the City of Vancouver and [Vancouver School Board](#) that encourages and promotes walking, biking, and rolling to school. It includes a number of programs that can be broadly categorized as either **Infrastructure & Safety programs** or **Education & Encouragement programs**. Schools usually request or apply to join these programs, though sometimes they are approached by the City and encouraged to join.

Infrastructure and safety components include:

- [School Travel Planning Program](#)⁵⁰ – Since 2012, City staff have engaged with three to six schools each year to identify and address barriers to active school travel, developing personalized school action plans that support safer active travel. The planning process typically takes two to three years to complete. To date, 49 schools have participated in the program.
- [School Safety Spot Improvements](#) – Each year, the City designs and implements improvements in response to requests from schools and residents for changes to a specific street or intersection near a school.
- [School Slow Zones on Arterials Program](#)⁶² – This program was launched in 2023 to reduce speed limits on non-MRN arterial and collector streets next to elementary and secondary schools during school hours (8am – 5pm). School zones on arterial streets have their speed limits reduced from 50 km/hr to 40km/hr, while those on collector streets have their speed limits reduced to 30km/hr. To date, 33 School Slow Zones covering 40 schools have been created.

Education and encouragement programs include:

- [School Streets](#)⁶³ – A School Street is a car-free block beside a school open to walking, biking and rolling. On school days, during drop-off and pick-up times, one street next to each participating school is transformed into a car-free zone for 30 to 75 minutes, allowing families to safely walk, bike, and roll to and from school. School volunteers or paid staff set up road barriers in the morning and afternoon, preventing motor vehicles from entering or exiting the School Street (except for emergency services). The program was launched in 2021 in partnership with the VSB.
- [Walking School Bus](#)⁶⁴ – The City partnered with the Vancouver School Board, TransLink, and the Society for Children and Youth of BC (SCY) to offer Kid Commute: A Walking School Bus Program. A Walking School Bus is a group of students who walk to school together with the support of one or more adult leaders. Since the initial 2021-2022 pilot, the program has been delivered at seven elementary schools.
- [Bike Bus](#)⁶⁵ – In partnership with HUB Cycling and with financial support from the Province, the City is piloting several ‘bike buses,’ an organized group of students, parents and volunteers riding to school together along a set route, similar to a bus route, to promote safe, active transportation.
- [School Active Travel Education](#)⁶⁶ – The City supports grade 6 and 7 students with active travel education via the [Ride the Road](#)⁶⁷ course provided by HUB Cycling. This program reaches up to 37 schools per year, ensuring all grade 6 and 7 students in Vancouver public schools receive training over a two-year period.
- [Mobi Youth Community Pass for High School Students](#)⁶⁸ – The City partners with Mobi to support a discounted annual Mobi Youth Community Pass Program. Students have the option to sign up for a yearly pass at a reduced rate of \$20, though they can qualify for a free pass if they require additional financial assistance. The program was piloted at Britannia Secondary School during the 2022-2023 school year and has since been expanded to three more high schools.
- [Walk Bike Roll Mini Grants](#)⁶⁹ – The City provides schools grants of up to \$1,500 for projects and activities that encourage students to walk, bike, and roll to school. Examples of projects used with the mini grants include bike bus programs, bike mechanic workshops, and promotional events. To date, 120 schools have received grants benefitting more than 20,000 students.
- [Bike to School Week](#)⁷⁰ – The City works with HUB Cycling to host Bike to School Week across VSB schools in early June.

[Supporting laws to improve safety](#)

Legislation to support road safety is an important part of creating a safer mobility culture. This can be done by advocating for provincial legislative change through the Union of BC Municipalities (UBCM), and by directly amending municipal bylaws:

- The [BC Motor Vehicle Act](#)⁷¹ (MVA) specifies province-wide rules for driving, cycling and using micromobility devices, and crossing streets as well as the penalties associated with breaking those rules.
- The [City of Vancouver Street and Traffic Bylaw](#)⁷² provides additional rules for traffic, street use, and the size and weight of vehicles that are permitted on the city's streets. Municipal bylaws must not contravene the MVA.

Over the years, many safety advocates have critiqued the MVA on the grounds that it is 'car-centric,' citing its origins in prioritizing private automobile use, and outcomes that normalize high-speed, car-dominated environments at the expense of safety, public health, and equity. While the MVA continues to evolve over time, there are still many gaps where vulnerable road users are not adequately considered, and where missing legislation makes it difficult to implement emerging best practices.

Specific areas for improvement include providing enhanced legal protection for vulnerable road users, enabling safer active travel infrastructure, aligning laws with established safe behaviour, updating guidelines for electric assist and other micromobility devices, and facilitating lower speed limits through measures such as municipal blanket speed limits.

[Enforcing laws and bylaws](#)

Police agencies and municipal bylaw officers play a critical role in enforcing traffic rules, helping to ensure that streets are safe for everyone. Police officers have the authority to enforce both MVA and local bylaws, whereas municipal bylaw officers can only enforce the latter. Local governments are explicitly prohibited from using the municipal ticketing system to enforce bylaws related to speed limits and other moving violations.

From a transportation safety perspective, enforcement is best focused at high danger locations and on dangerous behaviours such as speeding, distracted driving, reckless behaviour, and failing to yield to vulnerable road users.

A major challenge for local police agencies is a lack of capacity to enforce traffic safety rules to a level that ensures compliance. This could be addressed through expanded and improved automated enforcement. British Columbia does have some automated enforcement for speeding and red light running through its [Intersection Safety Camera \(ISC\) Program](#)⁷³; however effectiveness is limited since there are relatively few cameras in the city (43 in total as of 2025, only 12 of which capture speed violations), and since ticketing thresholds are set well above actual speed limits. The result is that only a limited number of speeding drivers are ticketed. In contrast, some jurisdictions, including major cities in Australia, deploy more cameras set to a modest threshold, resulting in widespread compliance and increased safety benefit. Programs in other jurisdictions are typically self-funded, with additional revenue used to support other safe infrastructure improvements. While automated enforcement is sometimes viewed as a controversial topic, a 2026 province-wide survey showed over 70% support for speed cameras.⁷⁴ Research suggests that public buy-in can be further increased by being transparent about locations, ticketing threshold and revenue, and by clearly communicating the safety and tax-saving benefits from reduced healthcare costs.

Automated enforcement can also be used for other purposes as well, including enforcing transit lanes (using on-board cameras) and creating low-cost modal filters (using cameras to limit access on particular streets).

Highlights: Recent Accomplishments

Below are some recent highlights in Vancouver regarding *Safe People*.

[Walking and cycling education in schools](#)

- Providing active travel education to children is a great way to teach safe behaviour, promote independent mobility and foster lifelong healthy habits.
- In 2018, the City began working with HUB Cycling to deliver their [Ride the Road](#)⁶⁷ walking and cycling course to grade six and seven students at six public elementary schools a year. [The program was significantly expanded in 2022](#),⁷⁵ and now reaches about 35 schools and 3,500 students per year. The aim is to reach all public elementary school students in the target grades every two years.
- The program incorporates both classroom and hands-on activities to build cycling and pedestrian confidence regardless of students' incoming skill levels. Trained instructors lead lessons to demystify bike mechanics, practice bike handling skills, and solidify rules of the road, all of which cumulate in a supportive ride through their school's neighbourhood.
- To ensure all students can participate, HUB Cycling supplies bicycles—including adaptive bicycles—and helmets to those who need them. Students also receive a course completion certificate that includes resources to further encourage the use of active transportation modes among children and their families.

[Active travel education for adults](#)

- The City supports a range of active travel education programs for adults, partnering with HUB Cycling's [Streetwise Cycling Education Centres](#).⁷⁶ (SWEC) to help adults gain the skills and confidence needed to incorporate active transportation into their daily routines.
- In 2025, the City supported SWEC across three areas, including a general course, a Women's Cycling Cohort Program, and a seniors' Cycling Cohort Program, providing training to over 400 participants at 46 courses. In 2026, the City is helping HUB pilot a new SWEC micromobility course focused on the safe use of e-scooters as everyday transportation.
- [Seniors on the Move](#).⁷⁷ is an inspiring initiative led by Better Environmentally Sound Transportation (BEST) to improve transportation options for older adults in BC and support the transition from driving to non-driving alternatives. Through free workshops and real-world excursions, older adults learn valuable knowledge about public transportation, including bus routes, ticketing, trip planning, safety, and more. The City staff partnered with BEST in 2024 and 2025 to help fund 9 workshops and 7 excursions with over 160 participants and continues to support this initiative in 2026.

[E-mobility Education Campaigns](#)

- The growth in e-bikes and other micromobility devices such as e-scooters has brought many new riders to Vancouver's streets and pathways. Overall, these devices have net-positive transportation benefits, providing sustainable travel options and reducing reliance on automobiles for more people. At the same time, they have exacerbated some existing challenges, such as more people riding on the sidewalk or traveling at different speeds on narrow pathways.
- To help address these challenges, the City delivered an e-mobility education campaign in 2024-2025 to encourage safe behaviour for new or prospective riders:
 - Friendly signage was developed to encourage respectful behaviour in known conflict areas between people walking, cycling and rolling, including "Walk your wheels" decals on sidewalks and "Slow your roll" messaging for public plazas and busy shared paths.

- Posters were displayed in e-bike and e-scooter rental stores to provide key safety tips and popular leisure routes for riders who were visiting the city and perhaps using the city's active travel network for the first time.
- Flyers were distributed at Go By Bike Week and the Community Policing Centres to provide key safety tips to riders.
- Shared safety messages were co-developed with Lime and Vancouver Coastal Health to ensure consistency between municipal, provider and health authority audiences.
- The City also regularly runs social media campaigns to encourage new riders, promote safety and clarify provincial regulations. [Five videos](#) were created for social media in 2024 and supplemented in 2025.

[Updating traffic laws to improve safety](#)

- The City regularly works with partners to advocate for changes to the Provincial Motor Vehicle Act to improve transportation safety.
- In 2024, amendments included (a) [establishing safe minimum passing distance regulations for people driving around vulnerable road users](#),⁷⁸ requiring drivers to maintain a minimum 1m distance when passing cyclists and other vulnerable road users (1.5m on highways with a posted speed limit above 50 km/h), and (b) [establishing a framework for automated vehicles](#),⁷⁹ prohibiting operation of automated self-driving vehicles unless provincially authorized.

[VPD and ICBC-led safety campaigns](#)

- ICBC partners with VPD, local policing centres, service organizations and community volunteers each year to deliver a range of traffic safety campaigns that target dangerous behaviour. Recurring topics include distracted driving, impaired driving, speeding and other high-risk behaviours, as well motorcycle safety, pedestrian safety, cycling safety and back to school awareness.
- Specific programs include [Speed Watch](#)⁸⁰, which educates drivers in the moment about the posted speed limit and the speed they are traveling using portable radar equipment and electronic signage, and [Cell Watch](#), where volunteers raise awareness about the dangers of distracted driving using intersection signage and roadside surveys. Information is used to help ICBC and police better understand the issue at a local level and to develop specific initiatives and targeted enforcement.
- Other tactics include presentations and activations at schools and community events such as fairs and festivals, including collaborations with Vancouver Community Policing Centres, Vancouver Police Traffic, Transit Police and Transit Waterfront Community Policing volunteers, schools, universities, SUCCESS, MOSAIC, ISSBC and other community service organizations.
- The Vancouver Police Department's [Community Road and Education Safety Team](#)⁸¹ (CREST) works with Vancouver elementary schools and community groups to promote traffic safety for students and Vancouver citizens. Officers provide educational presentations on pedestrian and bicycle safety, respond to driving complaints near elementary schools, support the school safety patrol program, and work with ICBC, the VSB, and City of Vancouver to maintain and improve traffic safety.

Key Strategies

3.1. Support education, promotion and awareness programs to improve safety and reduce conflicts

- a. Support increased walking and cycling safety awareness as a key component of all driver training courses and examinations in British Columbia, including for commercial licenses.
- b. Work with community partners to deliver safe active travel training at all public schools, and advocate for including cycling skills and traffic safety training into the elementary school curriculum.
- c. Work with community partners to offer safe active travel training at multiple skill levels and in multiple languages, including courses for Indigenous Peoples, women, and newcomers to Vancouver.
- d. Develop cycling skills training facilities in key locations around the city.
- e. Continue to work with schools and community partners to deliver [School Streets](#),⁶³ walking school bus, bike bus and other [School Active Travel Program](#)⁵⁰ elements that make it easier for students to get to school safely.
- f. Work with partners such as TransLink, the Vancouver Police Department, and ICBC to discourage dangerous driving behaviour and promote safe and respectful interaction among all road users, particularly as it relates to people who are more vulnerable.
- g. Work with bike and e-scooter rental shops to promote safe, respectful behaviour for people renting micromobility devices for the first time, and to provide route guidance for those who are unfamiliar with Vancouver's safe active travel network.

3.2. Support laws that protect vulnerable road users and advance safety for all road users

- a. Review and update City bylaws and advocate for changes to the BC Motor Vehicle Act that enable safe infrastructure best practices, address inconsistencies with established safe behaviour, and provide enhanced legal protection for vulnerable road users.
- b. Support stronger penalties for more dangerous driving behaviours, including significantly higher fines for 'super speeders' and repeat offenders.
- c. Advocate to the Province to mandate active Intelligent Speed Assistance (ISA) for high-risk drivers and repeat offenders as part of its [Driver Improvement Program](#).⁸² *Cross reference with Safe Vehicles 4.2.b.*
- d. Continue to advocate for provincial legislative changes to enable lower enforceable blanket speed limits. *Cross reference with Safe Speeds 1.5.a.*

3.3. Support enforcement practices that target dangerous behaviour and protect vulnerable road users

- a. Continue to work with the Vancouver Police Department to enhance enforcement, education, and awareness approaches targeting behaviours that endanger vulnerable road users.
- b. Continue to support enhanced enforcement through the use of more intersection safety cameras to address critical safety issues such as speeding and red light running. *See Safe Speeds 1.5.b for more details on speed component.*
- c. Support automated enforcement to improve compliance for street designs that support sustainable transportation choices and protect vulnerable road users, such as on-bus cameras to enforce transit lanes and camera-enabled modal filters to reduce through traffic on neighbourhood greenways and pedestrian-priority streets.

4. Safe Vehicles

Background

The size, weight, and design of vehicles, as well as availability of vehicle safety systems, play a major role in the likelihood and severity of crashes.

The City directly influences vehicle safety through City-owned and City-contracted vehicles. It operates a large fleet including about 1,250 light-duty vehicles, 500 heavy trucks, and specialized equipment such as tractors and bulldozers, supporting services such as road maintenance, park operations, parking services, employee transportation, garbage and recycling collection, police, and fire and rescue.

The City has an indirect role to play through advocacy to industry and regulatory bodies, such as the Provincial [Passenger Transportation Board](#) (which licenses and regulates taxis, ride-hail, limousines, shuttles, and intercity buses in BC), the [Insurance Corporation of BC](#) (which manages driver licensing, vehicle registration, and insurance), the Provincial [Ministry of Transportation and Transit](#) (which oversees the BC Motor Vehicle Act and Regulations and related road safety legislation such as the rules for testing automated vehicles on public roads), the BC [Commercial Vehicle Safety and Enforcement](#) branch (responsible for compliance and enforcement of commercial transport) and [Transport Canada](#) (which sets safety standards for design, manufacturing and importation under the Motor Vehicle Safety Act).

Impact of vehicles size on safety

In recent years there has been a trend across North America toward larger and heavier motor vehicles such as SUVs. Overall, this has had a negative effect on safety. While larger vehicles may better protect their own occupants in the event of a collision, the impact to people walking or biking is significant: increased vehicle front-end heights result in higher impact points on the human body, leading to more severe injuries. They also tend to have larger blind spots, resulting in more "frontover" and "backover" pedestrian crashes.⁸³

Larger vehicles also negatively affect occupants of other motor vehicles. Their increased height can reduce visibility for other road users and they tend to require longer braking distances, leading to more crashes. When collisions occur, [their added height, mass and rigidity can override crumple zones of smaller vehicles that are designed to absorb impact](#).⁸⁴

Heavy trucks are a particular area of focus, since they are disproportionately involved in fatal crashes despite making up a relatively small fraction of vehicles on urban streets. In the City of Vancouver between 2016 and 2024, heavy trucks (defined as having a gross vehicle weight exceeding 11,795 kg) were involved in less than 6% of crashes, but over 10% of fatal crashes.⁸⁵ Province-wide, the data is even more stark, with [heavy trucks involved in less than one percent of BC crashes, but nearly 20% of fatal crashes](#).⁸⁶ There are a number of reasons for this, including greater vehicle mass and height, larger blind spots and longer braking distances for truck drivers, and more challenging sight lines for nearby road users.

Motor Vehicle Safety Features

There are also numerous advanced driver assistance and other vehicle features that can improve road safety (see [Table 9](#) below). Some are already required by law in Canada and/or already standard features in most vehicles. [Others are under review by Transport Canada](#)⁸⁷ and may become mandatory in the future.

Table 9. Various Driver Assistance and Safety Features.⁸⁸

Collision Warning	
Blind Spot Warning (BSW)	Detects vehicles in the blind spot while driving and notifies the driver to their presence. Some systems provide an additional warning if the driver activates the turn signal. Active Side Assist (ASA) is an advanced version adding corrective steering and braking intervention capabilities.
Forward Collision Warning (FCW)	Detects a potential collision with a vehicle ahead and alerts the driver. Some systems also provide alerts for pedestrians or other objects.
Lane Departure Warning	Monitors vehicle's position within the driving lane and alerts driver as the vehicle approaches or crosses lane markers.
Parking Collision Warning	Detects objects close to the vehicle during parking maneuvers and notifies the driver.
Rear Cross Traffic Warning	Detects vehicles approaching from the side at the rear of the vehicle while in reverse gear and alerts the driver. Some systems also warn for pedestrians or other objects.
Vulnerable Road User Detection (VRU)	Identifies pedestrians, cyclists, and motorcyclists using sensors like cameras, LiDAR, and radar to prevent collisions, often in autonomous vehicles (AVs) and advanced driver-assistance systems (ADAS).
Collision Intervention	
Anti-lock Braking (ABS)	Prevents wheels from locking up during hard braking. Required in Canada for all new vehicles since 2012.
Electronic Stability Control (ESC)	Detects and corrects sideways skids of loss of control by applying individual brakes or reducing engine power. Required in Canada for new vehicles since 2012.
Traction Control	Maintains traction between the drive wheels and road surface, reducing power to particular wheels when necessary, e.g. on slippery surfaces. Required in Canada for new vehicles since 2011.
Automatic Emergency Braking (AEB)	Detects potential collisions with vehicle ahead, provides forward collision warning, and automatically brakes to avoid a collision or lessen the severity of impact. Some systems also detect pedestrians or other objects.
Active Brake Assist (ABA)	Enhances a driver's weak braking input, increasing the likelihood of safe stopping in an emergency.
Automatic Emergency Steering	Detects potential collisions with a vehicle ahead and automatically steers to avoid or lessen the severity of impact. Some systems also detect pedestrians or other objects.
Reverse Automatic Emergency Braking	Detects potential collisions while in reverse gear and automatically brakes to avoid or lessen the severity of impact. Some systems also detect pedestrians or other objects.
Active Side Assist (ASA)	An advanced Blind Spot Warning system that adds intervention capabilities; if the warning is ignored, the system will apply corrective steering and/or braking to prevent a collision
Driving Control Assistance	
Adaptive Cruise Control	Cruise control that also assists with acceleration and/or braking to maintain a driver-selected gap to the vehicle in front.
Lane Keeping Assistance	Provides steering support to assist the driver in preventing the vehicle from departing the lane. Some systems also assist to keep the vehicle centered within the lane.
Active Driving Assistance	Provides simultaneous steering and brake/acceleration support to the driver. The driver must constantly supervise this support feature and maintain responsibility for driving.
Intelligent Speed Assistance (ISA)	Helps drivers comply with speed limits using GPS data, digital map speed limits, and traffic sign recognition cameras. Systems can be passive (alerts) or active (prevents acceleration / reduces power).
Parking Assistance	
Backup Camera	Displays the area behind the vehicle when in reverse gear. Required in Canada for new vehicles since 2018.
Surround View Camera	Displays the immediate surroundings of some or all sides of the vehicle while stopped or during low-speed maneuvers.
Active Parking Assistance	Assists with steering and potentially other functions during parking maneuvers. Driver may be required to accelerate, brake, and/or select gear position. Some systems are capable of parallel and/or perpendicular parking. The driver must constantly supervise this support feature and maintain responsibility for parking.
Remote Parking Assistance	Without the driver being physically present inside the vehicle, provides steering, braking, accelerating and/or gear selection while moving a vehicle into or out of a parking space. The driver must constantly supervise this support feature and maintain responsibility for parking.
Trailer Assistance	Assists the driver with visual guidance while backing towards a trailer or during backing maneuvers with a trailer attached. Some systems may provide additional images while driving or backing with a trailer. Some systems may provide steering assistance during backing maneuvers.
Other Driver Assistance Systems	
Daytime running lights	Lights the come on automatically when driving. DRLs required in Canada since 1989, and taillights in low light since 2021.
Automatic High Beams	Switches between high and low beam headlamps automatically based on lighting and traffic.

Driver Monitoring Systems (DMS)	Observes driver actions to detect inattentiveness, phone usage, or drowsiness. Some systems may monitor eye movement, gaze direction, head position, and facial expressions.
Heads-Up Display	Projects information relevant to driving into the driver's forward line of sight
Night Vision	Improves forward visibility at night by projecting enhanced images on instrument cluster or head-up display
Other Safety-Related Features	
Airbags	Passive safety devices that inflate during crashes to cushion occupants, protecting the head, neck and chest from striking the steering wheel, dashboard or windshield. Required in Canada for new vehicles since 1999.
Crossover mirrors	Also called cross-view mirrors, crossover mirrors are mounted on the front good or fender of large vehicles, such as school buses and commercial trucks, to eliminate the severe blind spot in front of the cab.
Convex mirrors	Wide-angle mirrors that provide a panoramic view to significantly reduce or eliminate large blind spots, allowing drivers to better see adjacent lanes, pedestrians and smaller vehicles. Typically mounted on or near side doors.
Truck Side Guards or Lateral Protective Devices (LPDs)	Safety barriers installed on the side of trucks to prevent pedestrians, cyclists, and motorcyclists from being swept underneath in a side-impact collision.
Rear Underride Guards or Mansfield Bars	Low barriers mounted to the back of trucks and truck trailers to prevent passenger vehicles from sliding underneath during a rear-end collision. Mandatory in Canada.
Telematics	Combines GPS tracking, on-board diagnostics and wireless communications to monitor vehicle location, usage, and components in real time, similar to an airplane's 'black box.' Safety applications include driver coaching for harsh braking/acceleration, rewards for safe driving (e.g. lower insurance premiums), preventative maintenance reminders, real-time road condition alerts, automatic crash notification (e.g. 911 Assist), and detailed information to better understand the 'how' and 'why' of crashes. Standard on newer vehicles, and can be retrofitted onto most older vehicles using plug-in devices.

[Technology Highlight: Active Intelligent Speed Assistance](#)

Intelligent Speed Assistance (ISA) is a vehicle technology using GPS and/or traffic sign recognition technology to help drivers stay within the posted speed limit. Basic 'passive' systems display current speed limits and inform drivers when speed limits change or are exceeded, while active systems have the ability to go one step further, dynamically limiting speed based on posted limits. Some jurisdictions, like the European Union and United Kingdom, now require ISA for all new vehicles, and others such as Washington D.C. have passed "super speeder" legislation mandating ISA for repeat, severe speeding offenders. Aftermarket ISA can be added to older vehicles at low cost.

The technology can also be applied to municipal and professional vehicle fleets. For example, a New York City pilot in 2022 covering 500 vehicles across 19 agencies and 21 vehicle types resulted in a 64% decrease in speeding (compared to similar fleet vehicles without ISA), a 49% reduction in speeding on 25 mph streets, and a ~95% safety performance improvement amongst the drivers with the worst histories. The technology is highlighted as one of many fleet advancements in its [2025 NYC Safe Fleet Transition Plan Update](#).⁸⁹

[Technology Highlight: Telematics](#)

Telematics is a technology that combines GPS tracking, on-board diagnostics (OBD) and wireless communications to monitor vehicle location, usage, and components in real time, similar to an airplane's 'black box.' It is standard equipment on most newer vehicles and can easily be retrofitted onto older vehicles using a plug-in device.

Telematics can be used to track a wide range of driver behaviours, including hard braking, excessive speeding, phone distraction, aggressive maneuvers and harsh cornering. Other safety-related features include real-time road condition alerts, vehicle maintenance reminders, and automatic crash notifications (e.g. 911 Assist).

Telematics can also actively 'coach' drivers to encourage safe behaviour. In many jurisdictions, insurance companies use telematics to track new drivers, reward good driving with lower premiums, and offer distance-based insurance products. There are benefits for fleets as well, such as municipal, public transit, taxi, ride-hailing, and car sharing vehicles.

Some U.S. communities use telematics for "Safest Driver" contests that combine real-time driving feedback with rewards for improvements in behaviour. Such contests have shown significant safety benefits, e.g. a 35% reduction in distracted driving in Seattle, a 57% reduction in hard braking in Boston, and a 45% reduction in speeding in Los Angeles.

The technology can also be used to understand driver behaviour to identify hotspots of risky behavior where they can implement interventions like traffic calming, street redesigns and speed safety cameras. [Cambridge Mobile Telematics](#)'⁹⁰ [StreetVision](#)⁹¹ allows communities to visualize and analyze driving behavior down to the street segment level, informing proactive decisions based on observed behaviour rather than relying solely on crash data. In Texas, this data was used to identify areas with high levels of phone distraction, helping shape a targeted education campaign where it was most needed.

For crash investigations, telematics can provide granular, second-by-second data to reconstruct crashes, determine liability, and analyze pre-crash behaviour. Such data would be invaluable to better understand the 'how' and 'why' of crashes, enabling the City and partners to better identify safety issues and prioritize improvements. In Canada, data collected by insurers is subject to privacy laws and requires consent.

[Highlight: improving the safety of large vehicles](#)

There are a range of safety devices that can be retroactively installed on large trucks to improve safety. Cross-over mirrors, convex mirrors, and cameras can improve visibility for drivers, and alert devices can warn of people or objects in blind spots.

Truck side guards (also called lateral protection devices) can reduce crash severity by preventing people from being swept underneath during side impact collisions, a common collision type involving trucks and vulnerable road users. A [U.S. Department of Transportation Volpe study](#)⁹² found that nearly half of cyclists and over a quarter of pedestrians killed by large trucks first impact the side of a truck. A 2005 U.K. study found that truck side guards reduced pedestrian fatalities 20% and cycling fatalities 61% for side-impact crashes.⁹³

Many nations in Europe, Asia, and South America have required side guards on trucks for decades, including Japan since 1979 and the UK since 1983. In North America, side guard mandates have been advanced at the municipal level beginning with [the City of Boston](#),⁹⁴ which has required side guards, convex mirrors, cross-over mirrors, and blind-spot awareness decals on all City-owned and City-contracted vehicles since 2015. Numerous other cities are following suit, including New York, Washington DC, San Francisco, Toronto and Halifax.

Truck Turn External Audible Alerts are another safety feature that can help with truck safety in urban areas by providing an audible warning to pedestrians and cyclists when truck operators make turns. [New York City's 2025 Safe Fleet Transition Plan Update](#)⁸⁹ highlights that 200 city trucks will soon be equipped with this feature, alongside other fleet safety investments such as more truck surround cameras, rear and forward automatic braking, backup sensors and lane departure alerts.

Highlights: Recent Accomplishments

Below are some recent highlights in Vancouver regarding *Safe Vehicles*.

[Improving fleet safety as vehicles are replaced](#)

- The City continues to improve the safety of City-owned vehicles as they are replaced, prioritizing new safety features as they become available. For example, Automatic Emergency Braking (AEB)—which detects potential collisions ahead and automatically applies the brakes as necessary—is increasingly becoming a standard feature in new light-duty fleet vehicles purchased by the City.
- A particular highlight is the purchase of the City's first electric Rizeon18L cube van, which addresses various blind spots and other concerns regarding the vehicle it was replacing. It includes a host of advanced safety features including Active Side Assist (ASA), Lane Departure Warning (LDW), Active Brake Assist (ABA), Automatic Emergency Braking, Lane Departure Warning (LDW), rear view cameras, and Electronic Park Lock (EPL). These features have particular benefits in urban areas, eliminating blind spots and preventing collisions with vulnerable road users. For example:
 - the ASA feature continuously monitors the passenger side to alert the driver of any pedestrians or cyclists in the truck's blind spot when turning right, automatically braking as required;
 - the ABA and AEB features automatically calculate the truck's distance from vehicles ahead, issuing warnings and actively braking when required to avoid collisions with vehicles and moving pedestrians; and
 - the EPL sets the parking brake and locks the gearbox with the push of a button, whereas the unit prior did not have a parking gear nor multi gear transmission to mechanically lock the gear box.

[Fleet monitoring using telematics](#)

- The City deploys telematics throughout its fleet to evaluate vehicle safety performance, support predictive maintenance to prevent on-road breakdowns, and help respond to service requests, concerns, or complaints.

[Truck side guard pilot](#)

- Following a [2022 Council motion on truck side guards](#), the City conducted a pilot to install side guards on several city trucks, to help address concerns regarding potential side collisions with vulnerable road users. The pilot was limited due to several factors, including (a) high costs associated with customizing retrofit kits to work with existing truck modifications such as toolboxes, hydraulics and hooks, and (b) challenges in adding the equipment and staying within the 2.6m maximum vehicle width limit.
- Based on the results of the pilot, the City implemented policy to purchase new medium- and heavy-duty trucks with a focus on reducing empty space on the side of the truck between the front and rear axles. This approach focuses on options that provide multiple functions including tools boxes, chain hangers, cone holders and relocating hydraulic and fuel tanks.

Key Strategies

4.1. Improve the safety of City-owned and City-contracted motor vehicles.

- a. Develop an integrated vehicle safety equipment policy and continue to incorporate proven safety features as vehicles are replaced, subject to availability and budget.
 - i. Prioritize safety equipment that reduces blind spots and empty space between axles for medium and heavy trucks.
 - ii. Consider other safety features when available, such as active side assist (ASA), active brake assist (ABA), surround view cameras (SVC), and intelligent speed assistance (ISA).
- b. Continue to use telematics in City fleet vehicles to ensure safe driving behaviour, evaluate vehicle safety performance, support predictive maintenance to prevent on-road breakdowns, and inform system-wide risk reduction strategies.
- c. Consider requiring or incentivizing vehicle safety equipment on City-contracted vehicles.

4.2. Support regulations and incentives that improve motor vehicle safety.

- a. Encourage the [Provincial Passenger Transportation Board](#) to require telematics, intelligent speed assistance (ISA), and other proven safety technologies in taxi, ride-hailing, and charter bus fleets, to monitor and encourage safe driving behaviour.
- b. Advocate to the Province to mandate active Intelligent Speed Assistance (ISA) for high-risk drivers and repeat offenders as part of its [Driver Improvement Program](#).⁹⁵ *Cross-reference with Safe People 3.2.b.*
- c. Support insurance practices that have demonstrated safety benefits, e.g. using ISA and telematics to incentivize safe driving, and favouring lighter vehicles with clear over-the-hood visibility (smaller blind spots).
- d. Consider additional measures to discourage large and/or heavy private vehicles through measures such as higher parking fees and/or supporting vehicle levies that factor size or safety ratings into cost.
- e. Support a unified regional program of commercial vehicle safety inspections on the region's roads coordinated with the [Provincial Commercial Vehicle Safety and Enforcement \(CVSE\) branch](#).
- f. Encourage the federal government to require enhanced safety features in new motor vehicles, including:
 - i. uptake of Advanced Driver Assistance Systems (ADAS) that include pedestrian and cyclist collision avoidance systems for heavy commercial vehicles, including buses, to help minimize collisions with vulnerable road users;
 - ii. adopting European Pedestrian Safety Standards for new vehicles for the protection of vulnerable road users, and requiring automakers to display pedestrian crash safety ratings at the point of sale to better inform consumers; and
 - iii. making side guards mandatory on large, heavy, and semi-trucks in urban areas.
- g. Advocate for the safety and protection of vulnerable road users in the algorithms of any autonomous and connected vehicles permitted to operate on City streets.

5. Post-Crash Response

Background

Post-crash response focuses on improving the survival of people involved in crashes by providing timely access to medical services, as well as implementing effective traffic incident management, data collection at the crash site, and effective follow-up responses.

Maintaining effective emergency response

Maintaining effective emergency access is a critical aspect of our transportation network planning. Staff work with emergency service providers when designing new infrastructure, considering emergency routes, access and response times.

Where necessary, on-street plazas, modal filters and active travel lanes are designed for permeability. For example, protected active travel lanes can be wide enough for emergency vehicles to use, and diverters can include mountable curbs or flexible bollards to allow fire truck access while still deterring general car traffic.

Investigating and responding to serious incidents

Vancouver's [Transportation 2040 Plan](#)¹ (2012) committed the City to investigating serious incidents, and responding with engineering, enforcement, education, and/or legislative measures as appropriate.

After a serious or fatal crash, the City works closely with police to better understand what occurred and identify opportunities to improve safety. Typically, the VPD notifies staff shortly after the incident with a high-level description of the circumstances. This early information allows staff to be aware of the location and general nature of the collision while the investigation is still ongoing. While details are often limited at this stage, it initiates monitoring and review of the location.

Additional investigation findings are shared in the days or weeks that follow. This information is critical, as it provides a more detailed understanding of the contributing factors, such as vehicle movements, road conditions, visibility, and user behavior. Staff use this detailed description and site investigations to assess whether there are engineering measures that could help reduce the likelihood of similar incidents in the future.

Based on this review, staff consider both short-term and long-term actions as needed. Quick-build or interim measures such as signage adjustments, pavement markings, tree trimming or signal timing changes may be identified to address immediate concerns. Longer-term options, including geometric changes, signal modifications, or capital upgrades are explored within the overall safety program priorities.

To ensure a comprehensive assessment, staff also review additional data sources. This includes examining ICBC crash data to identify whether there is a broader pattern of similar collisions at the location, including non-fatal incidents that may indicate an underlying safety issue. Traffic volumes, speed and any other available data sets are also reviewed. Where gaps exist, staff may collect additional information as needed, such as conducting new traffic counts, speed studies, conflict analysis, or signal warrants to build a more complete understanding of conditions. In addition, staff review past resident requests related to the location to understand any ongoing safety concerns raised by the community. Together, this approach helps ensure that decisions are data-driven and focused on preventing further incidents.

[Precedents: Reporting on Deadly Road Deaths](#)

Some jurisdictions regularly publish detailed reports on traffic fatalities, through detailed documents or online dashboards. Transparently communicating this information helps to raise public awareness about road safety issues, prioritize and build support for interventions, and increase accountability.

Two examples are highlighted below.

Portland, Oregon

As part of its commitment to Vision Zero, the Portland Bureau of Transportation continuously reviews deadly traffic crashes in the city, analyzing trends and publishing an [annual deadly traffic crash report](#).⁹⁶ A one-page summary provides a quick snapshot, highlighting patterns, trends and locations, as well as traffic deaths by mode of travel, while a longer report provides additional detail on circumstances (street characteristics, contributing factors, vehicle size, hit-and-run, etc.), demographics (age, gender, race and ethnicity) and specific locations. The longer report also includes victim names, helping to humanize the consequences of traffic violence.

Australia

Australia maintains an online [monthly road death dashboard](#),⁹⁷ providing detailed and easily understandable information on a variety of factors such as mode of travel (pedestrian, cyclist, motorcyclist, motor vehicle driver or passenger), demographic information (age group, gender), land use 'remoteness' (major cities, inner region, outer region, remote), and speed limit. Data sets are collected from a wide range of organizations and shared in a downloadable, interactive format allowing for easy comparison across jurisdictions.

[Improving data collection and analysis](#)

As noted in an earlier section (*A Data-Informed Approach to Safety*), data collection and analysis is critical to prioritizing work and selecting the most appropriate tools for particular issues.

Tracking injury severity is important for monitoring progress and understanding where the greatest harm is occurring. The work is challenging since there is not yet a comprehensive, consistent data set that can reliably track serious injuries year-over-year or across jurisdictions. Many BC jurisdictions use police reports to track serious injuries, however attendance is discretionary so data completeness varies depending on local resources.⁹⁸

The City has been working with [Vancouver Coastal Health \(VCH\)](#) and [BC Ambulance](#) since 2016 to help address this gap and deepen our understanding of serious injuries. These data sets provide valuable insights, but challenges remain regarding overall tracking due to missing or ambiguous information as noted in *Table 1* earlier in this document.

Reconstructing *how* and *why* crashes take place is also challenging. ICBC incident descriptions use inconsistent language and may have self-reporting errors or contradictory accounts of what happened. Police reports provide much greater detail, but investigations are limited to the most severe crashes that result in life-altering injuries or death.

Improving data collection and analysis to support safer streets is a collaborative effort. The City will continue working with data partners, for example by supporting the integration of data sets to get a more complete understanding of crashes, and leveraging technology for enhanced monitoring and analysis where appropriate.

Highlights: Recent Accomplishments

Below are some recent highlights in Vancouver regarding *Post-Crash Response*.

Maintaining emergency access on local street greenways

- Traffic diverters—physical barriers to restrict certain movements, like through traffic or left turns while being permeable for walking, biking and rolling—are an important traffic calming tool to reduce shortcutting on local streets, and to support local street greenways.
- Recent examples on Haro Street at Thurlow Street and on Alexander Street at Main Street showcase how diverters can be designed to deter general motor vehicle traffic while still providing emergency access.
- In both cases, a portion of the concrete diverter is at a reduced height so that it can be mounted by fire trucks and other emergency vehicles.

Clark Drive and East 10th Avenue Response

- 10th Avenue is one of the busiest bike routes across the city, but the intersection with Clark Drive is among the most dangerous for people cycling. From 2020 to 2024, there were 16 motor vehicle-cyclist collisions,⁹⁹ including multiple serious injuries.¹⁰⁰
- A conflict analysis and engineering study was completed in 2025 to better understand the safety issues and how to respond. It highlighted cars failing to stop at the red light on Clark Drive, cyclists underestimating gaps in traffic, and overgrown vegetation creating sightline issues.
- The City responded in several ways, including tree trimming, modifications to existing signage, increasing corner clearances, and improving crosswalk markings and visibility. Ongoing work to improve signal visibility is being advanced, along with an upgrade to a full traffic signal.

Lord Byng Secondary School

- In early 2024 a student at Lord Byng Secondary School was hit by a motor vehicle and seriously injured when crossing West 16th Avenue outside the school. Following this tragedy, the City engaged with principals and parent advisory councils from Lord Byng Secondary School, Jules Quesnel Elementary School and Queen Elizabeth Elementary School to improve student safety.
- Safety improvements were completed in two phases. In 2024, temporary materials were used to close the median and create curb bulges at Wallace Street and West 16th Avenue, new marked crosswalks were installed, nearby signals were retimed, and speed limits were reduced to 40 km/h.
- Work is ongoing in 2026, with the permanent addition of curb extensions to reduce crossing distances for people walking, and a new flashing beacon. The City is also exploring options to improve safety on Camosun Street near Queen Elizabeth Elementary School.

Working with hospitals to better understand injury severity

- For many years, the City has had access to reliable collision data [via the Insurance Corporation of BC (ICBC)] and traffic-related fatality data [via the Vancouver Police Department (ICBC)], but data on injury severity was lacking.
- To help address this gap, the City began working with Vancouver Coastal Health (VCH) and BC Ambulance in 2016. While the data sets have some limitations, they provide valuable insight on where the most severe crashes are occurring on our street network.

Key Strategies

5.1. Investigate and respond to all traffic fatalities.

- a. Work closely with partners to examine the location and contributing factors of any collision resulting in death.
 - i. Where appropriate, respond accordingly with engineering, enforcement, education, and/or legislative measures.
 - ii. Maintain an internal database to consistently track analyses and responses.
- b. Publish annual traffic fatality reports highlighting locations and street characteristics of individual crashes, victim mode of transportation and basic demographic information, contributing factors and other circumstances, and crash patterns and trends.

5.2. Design the active travel and public space networks to accommodate emergency vehicles where necessary.

- a. Continue to work with emergency service providers when designing active travel lanes, streets-to-plazas, major street traffic calming elements, or other road infrastructure, considering details such as emergency routes and response times, active travel lane widths, modal filters with reduced curb height, and removable or retractable bollards.

5.3. Work with partners to improve data collection, integration and analysis.

- a. Continue to collect and analyze collision data and other relevant data sets, factoring in injury severity and conducting before-and-after studies where appropriate, to:
 - i. identify emerging safety-related trends and track progress towards targets, benchmarking against other jurisdictions if possible;
 - ii. prioritize corridors and intersections where interventions are most urgently needed to help direct workplans and investments; and
 - iii. select the most appropriate interventions to address specific challenges.
- b. Continue to work with emergency service, health care and insurance providers to improve data collection at crash sites and hospital emergency rooms, and to facilitate linking of data sets to get a more complete understanding of crashes (e.g. consistent formats, accurate location data, etc.).
 - i. Ensure timely access to ambulance service, emergency department and hospitalization data on a regular basis.
 - ii. Work with the [Provincial Health Services Authority \(PHSA\)](#) to enable access to the [BC Trauma Registry](#) on a regular basis to gather more accurate information on the most serious traffic-related injuries.
 - iii. Support partnerships and data collection methods that enable linking of data sets while addressing any privacy concerns.
- c. Consider a pilot to better understand serious incidents by cross-referencing data recorded from signal cameras with 911 calls.
- d. Advocate for changes to federal laws to enable the use of on-vehicle telematics to provide granular, second-by-second data (e.g. speed, braking) to reconstruct crashes, determine liability and analyze pre-crash behaviour.

D. NEAR-TERM ACTIONS

This chapter highlights near-term actions for meaningful progress towards Vision Zero over the next five years. Given that safety is embedded as a core value throughout the City's transportation policies and projects, the list not intended to be comprehensive.

Some actions fall within existing budgeted programs and projects, while others depend on future funding. As they reflect a shorter timeframe, they will be revisited on a more frequent basis (at least every two years) to ensure accountability and guide near-term work plans, informed by the strategic framework from the previous chapter.

A more detailed analysis of collisions in Vancouver is currently underway through a consultant-led study to strengthen the City's evidence base for decision-making. This work includes:

- evaluating the effectiveness of safety measures implemented over the past decade, using before-and-after analysis to understand what works best in a Vancouver context;
- reviewing recent crash data to better understand when, where and how injuries and fatalities are occurring;
- developing additional citywide insights including crash rates that account for exposure where possible and mapping common collision types by mode onto the city street network;
- reviewing the highest injury and crash rate locations in greater detail to identify specific safety issues and appropriate measures; and
- recommending additional safety measures based on the most effective approaches in a Vancouver context and the most prevalent collision types.

Staff will use this work to better identify and prioritize specific safety interventions across the network and to refine annual programs as needed. Future updates to the near-term actions will reflect these findings, with more detailed and targeted actions, including a clearer understanding of the effectiveness of different safety measures.

#	ACTION	SYSTEM				
		1	2	3	4	5
		Safe Speeds	Safe Streets	Safe People	Safe Vehicles	Post-Crash Response
1	Continue to implement the default 30 km/h speed limit on all local streets as outlined in the citywide Neighbourhood Slow Zone Program , including installing signage at entry points into 25 neighbourhoods over the next three years, with additional signage along local street greenways, and next to schools and other community destinations.	X	X			
2	Improve coordination with repaving and other street reconstruction projects, delivering safety improvements where possible while reducing additional costs and construction impacts. For significant repaving or reconstruction projects on major streets, conduct assessments to identify potential improvements that could be co-delivered, such as signal improvements, lane reconfigurations, vertical deflection, crossing and accessibility improvements, continuous sidewalks, sidewalk widening, cycling/micromobility improvements, transit priority measures and other forms of road space reallocation. Incorporate identified improvements into the project scope, subject to staff resources and budget.	X	X			
3	Work with TransLink and emergency service providers to further explore traffic calming options appropriate for transit and Major Road Network (MRN) routes.	X	X			
4	Consider a quick-build pilot on Hastings Street in the Downtown Eastside in 2027 to support the 30 km/h speed limit in the province's highest pedestrian collision corridor. Use lessons learned to inform permanent changes that can be delivered in conjunction with future repaving, considering design measures such as horizontal and/or vertical deflection, lane line hardening, median refuges, lane reconfigurations, signal timing changes and bus priority measures.	X	X			
5	Publish an updated City's Engineering Design Manual in 2027 to reflect evolving best practices, adapted to local context. Potential updates include continuous sidewalks, improved intersection treatments, reduced lane widths and enhanced corner clearances as new standards.	X	X			
6	Continue to systematically phase in proven safety improvements through spot infrastructure programs using a data-informed approach to prioritize locations, including new or upgraded signals, rectangular rapid flashing beacons (RRFBs), increased time to cross for pedestrians, leading pedestrian intervals (LPIs), leading bike intervals (LBIs), protected turn phases, no-turn-on-red restrictions, vertical deflection, enhanced corner clearances (intersection daylighting) and other measures. Incorporate ongoing safety analysis into this work to ensure safety funding is being used to best reduce serious injuries and fatalities.		X			

#	ACTION	SYSTEM				
		1	2	3	4	5
		Safe Speeds	Safe Streets	Safe People	Safe Vehicles	Post-Crash Response
7	<p>Continue to grow the active travel network by upgrading existing routes and building new ones per the City's Active Mobility Plan.</p> <p>Near-term projects include:</p> <ul style="list-style-type: none"> - a new two-way protected lane on Melville Street, connecting the Dunsmuir protected lane with the Coal Harbour Seawall and new Seaside Elementary School; - upgrades to the 10th Ave Greenway, including near Granville and Fraser streets; - a new two-way protected lane on the Fir ramp, connecting the 10th Avenue Greenway with the Granville Connector; - a new two-way protected lane on Pine Street, connecting the Arbutus Greenway and Granville Connector with the Seaside Greenway; - upgrades to the Adanac Greenway, including new protected lanes between Rupert Street and Boundary Road; - upgrades to the 45th Avenue Greenway between Killarney Street and Boundary Road with associated neighbourhood traffic calming; - addressing a gap in the BC Parkway at Slocan Street; - upgrades to the Portside Greenway on Wall Street between Dundas and Nanaimo streets, to create a high-quality car-light facility; and - upgrades to the Cambie Bridge southbound off-ramp to W 6th Avenue, to create better physical separation between people cycling and motor vehicle traffic. <p>Continue to address safety concerns on the existing active travel network through spot improvements.</p>		X			
8	<p>Continue to deliver traffic calming and safety improvements to at least one neighbourhood per year through the Neighbourhood Traffic Management Program (NTMP), with upcoming areas including Moberly Park, Joyce-Collingwood, and Trout Lake / Clark Park (see program website for map). Explore new engagement processes to expedite program delivery, and coordinate with the curb ramp and sidewalk programs to install raised crossings along with curb work.</p>	X	X			
9	Expand the speed hump program to support 30 km/h design speeds in more locations.	X	X			
10	Continue to pilot lower cost approaches to deliver safety infrastructure, including expanded use of extruded curbs, pin-in-place traffic calming curbs and planters to reinforce clearances where necessary.		X			
11	Consider increasing the road marking maintenance program budget to ensure crosswalks and other road markings remain visible.		X			
12	<p>Continue to install leading bike intervals (LBIs) through dedicated bike signal displays at priority locations on the active travel network.</p> <p>Consider a pilot at select leading pedestrian interval (LPI) locations using signage to legally allow cyclists and other micromobility users to cross with the advance walk sign.</p>		X			
13	<p>Through the School Travel Planning Program, continue to engage with 3 to 6 elementary and secondary schools each year to identify and address barriers to active school travel, using infrastructure improvements as well as education and encouragement programs.</p> <p>Consider a pilot to extend the program to facilities serving older persons.</p>		X	X		

#	ACTION	SYSTEM				
		1	2	3	4	5
		Safe Speeds	Safe Streets	Safe People	Safe Vehicles	Post-Crash Response
14	<p>Continue to work with schools and community partners to deliver School Active Travel Program elements that make it easier for students to get to school safely.</p> <p>Continue working with partners to deliver safe active travel education, with an aim to reach all grade 6-7 public elementary school students every two years, and Streetwise Cycling Education Centres (SWEC) programs to support adult training for low-income communities, newcomers to Vancouver and other equity-seeking groups.</p>			X		
15	<p>Continue to advocate for changes to provincial laws and programs to improve transportation safety, including:</p> <ul style="list-style-type: none"> - participating in Ministry of Transportation and Transit discussions on potential changes to the Motor Vehicle Act, with key focus areas including commercial vehicle safety and enforcement, protections for vulnerable road users (speed reduction and intersection safety) and new traffic control devices that support active transportation; and - advocating for blanket speed limits and enhanced automated enforcement. 	X	X	X		
16	Develop an integrated vehicle safety equipment policy for City-owned vehicles for use in vehicle replacement projects.				X	
17	<p>Publish annual traffic fatality reports, highlighting locations and street characteristics of individual crashes, victim mode of transportation and basic demographic information, contributing factors and other circumstances, and crash patterns and trends.</p> <p>Consider building this into a regular Vision Zero Safe Mobility report.</p>					X
18	<p>Continue to work with data partners to improve understanding of serious traffic injuries, including:</p> <ul style="list-style-type: none"> - exploring agreements to integrate data sets for a more complete picture of serious crash locations, as well as demographics and contributing factors; - working with the Provincial Health Services Authority (PHSA) to enable timely access to the BC Trauma Registry; and - developing a High Injury Network map that weighs fatalities and severe injuries over minor ones as injury data sets become more complete. 					X
19	<p>Improve data collection and analysis of existing data sets, tools and measures, including:</p> <ul style="list-style-type: none"> - piloting a conflict analysis approach that uses existing traffic monitoring infrastructure, expanding to priority locations and intersections across the city if successful; - continuing to undertake video conflict analysis at priority locations without existing traffic monitoring camera coverage as needed; - exploring the use of AI and other technologies to analyze crash incident descriptions, to better locate specific issues and prioritize relevant countermeasures; and - exploring the use of GPS and cellphone data to support crash rate development and speed analysis, to identify high crash rate locations and corridors where speeding is occurring and help staff prioritize specific locations for safety improvements. 					X
20	Update near-term actions at least every two years.	X	X	X	X	X

E. ACKNOWLEDGEMENTS

This plan was developed by City staff with input from partners and interest holders, with additional analysis from Parsons Inc.

The City would like to thank the partners and interest holders who provided input through one-on-one and small group meetings as well as larger workshops. Key groups included:

- *police and emergency services*
including the Vancouver Police Department, Vancouver Fire and Rescue Services, and BC Ambulance;
- *health and research agencies*
including Vancouver Coastal Health, BC Emergency Health Services, the BC Injury Research and Prevention Unit, and local transportation safety researchers;
- *regional, provincial, and federal agencies*
including TransLink, Coast Mountain Bus Company, the Insurance Corporation of British Columbia, the BC Ministry of Transportation and Transit, RoadSafetyBC, Transport Canada, and Infrastructure Canada;
- *safety advocacy groups*
including Vision Zero Vancouver, HUB Cycling, Movement, and the Society for Children and Youth of BC;
- *school and parent groups*
including the Vancouver School Board and the Vancouver District Parent Advisory Council;
- *business improvement associations;*
- *relevant City advisory committees*
including the Transportation Advisory Committee, Older Persons and Elders Advisory Committee, Persons with Disabilities Advisory Committee, and Children, Youth and Families Advisory Committee; and
- *transportation industry groups*
including the BC Trucking Association and representatives from the local taxi industry.

We gratefully acknowledge funding support from Transport Canada to support development of the plan.

F. HIGH INJURY MAP APPENDIX

All modes – injuries and fatalities

ICBC + VPD

N = 36,689

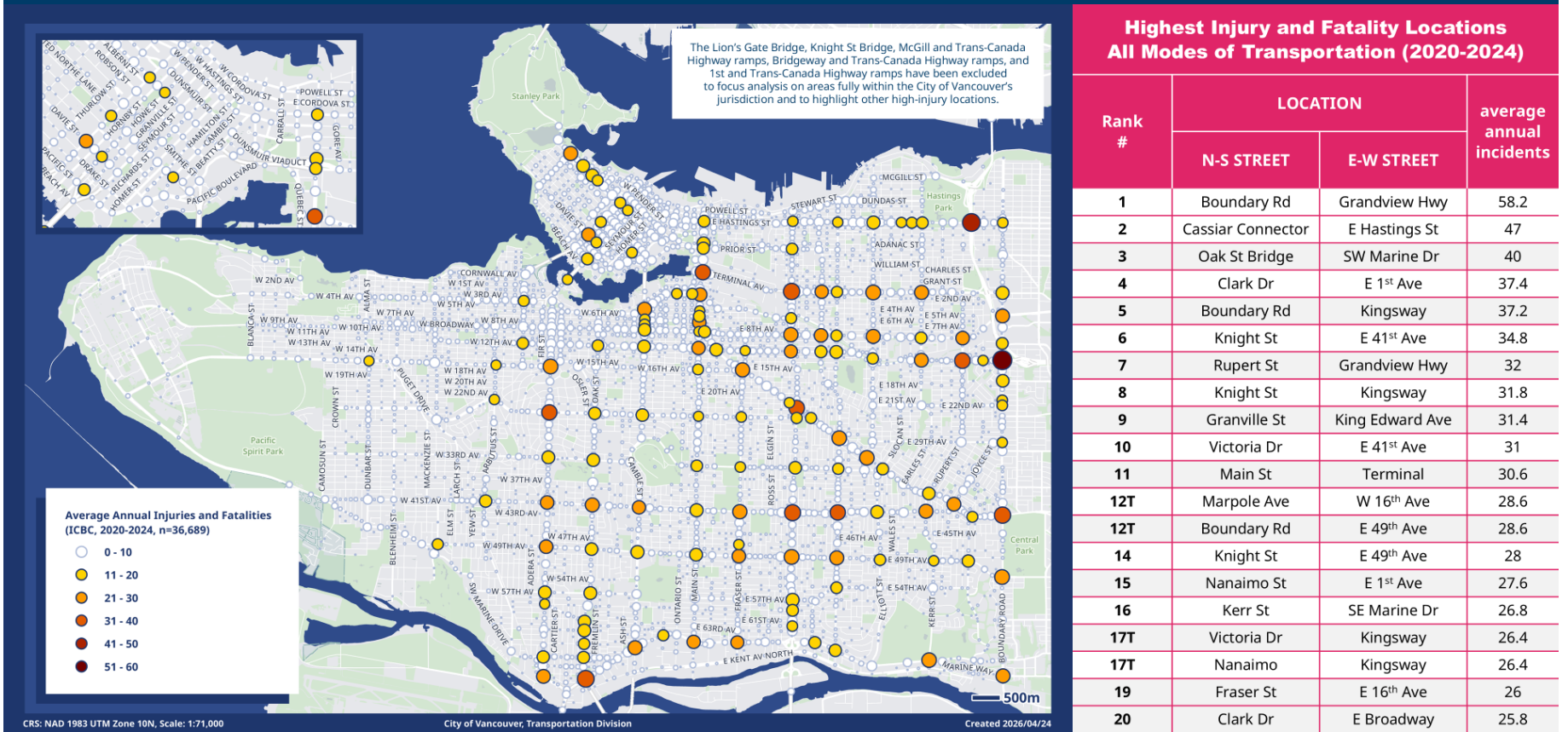


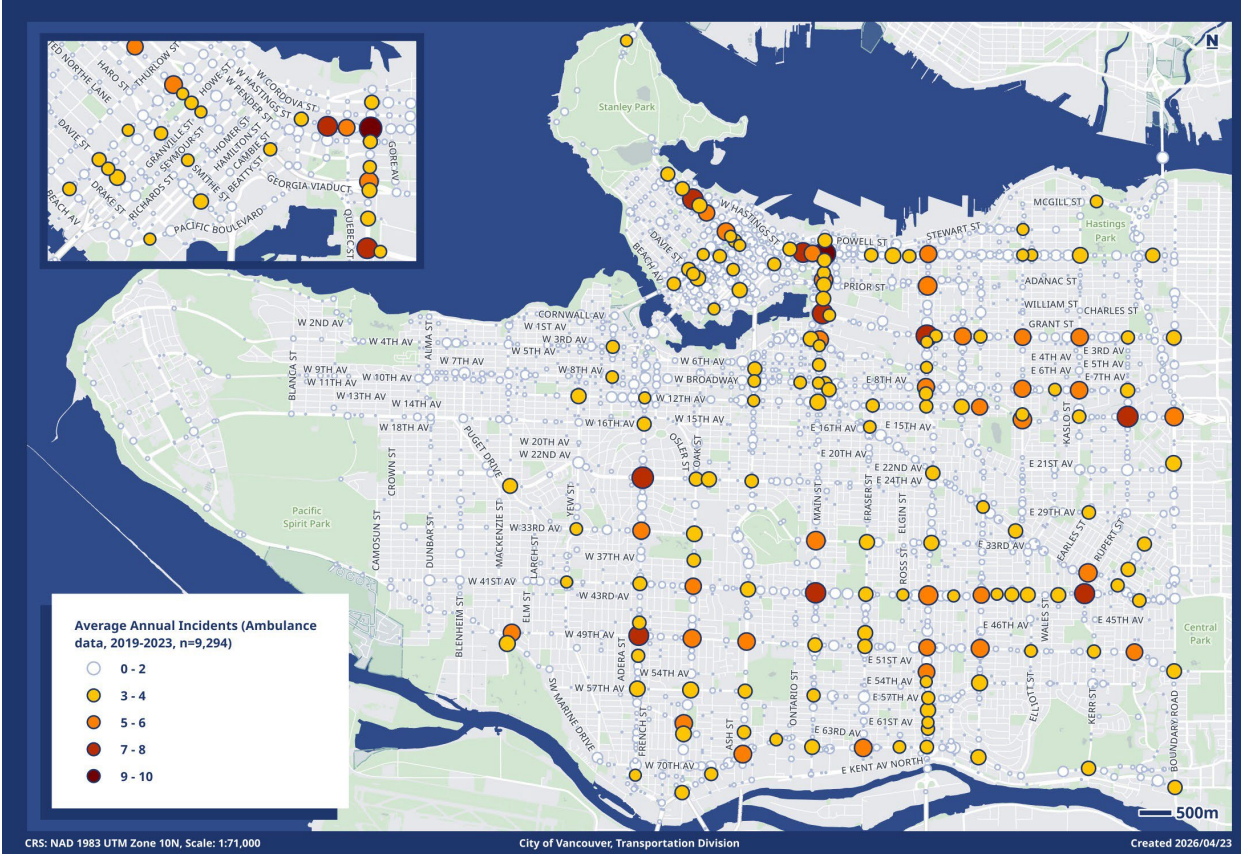
Figure 15. Map of ICBC-reported crashes resulting in injury or fatality – all modes of transportation (2020-2024).

Note: to focus on locations under City jurisdiction, the Lions Gate Bridge, Knight Street Bridge, and Trans-Canada highway ramps at McGill, Bridgeway and E 1st Avenue have been excluded from this analysis.

All modes – Ambulance Incidents

BC Ambulance

N = 9,294



Highest Ambulance Locations All Modes of Transportation (2019-2023)

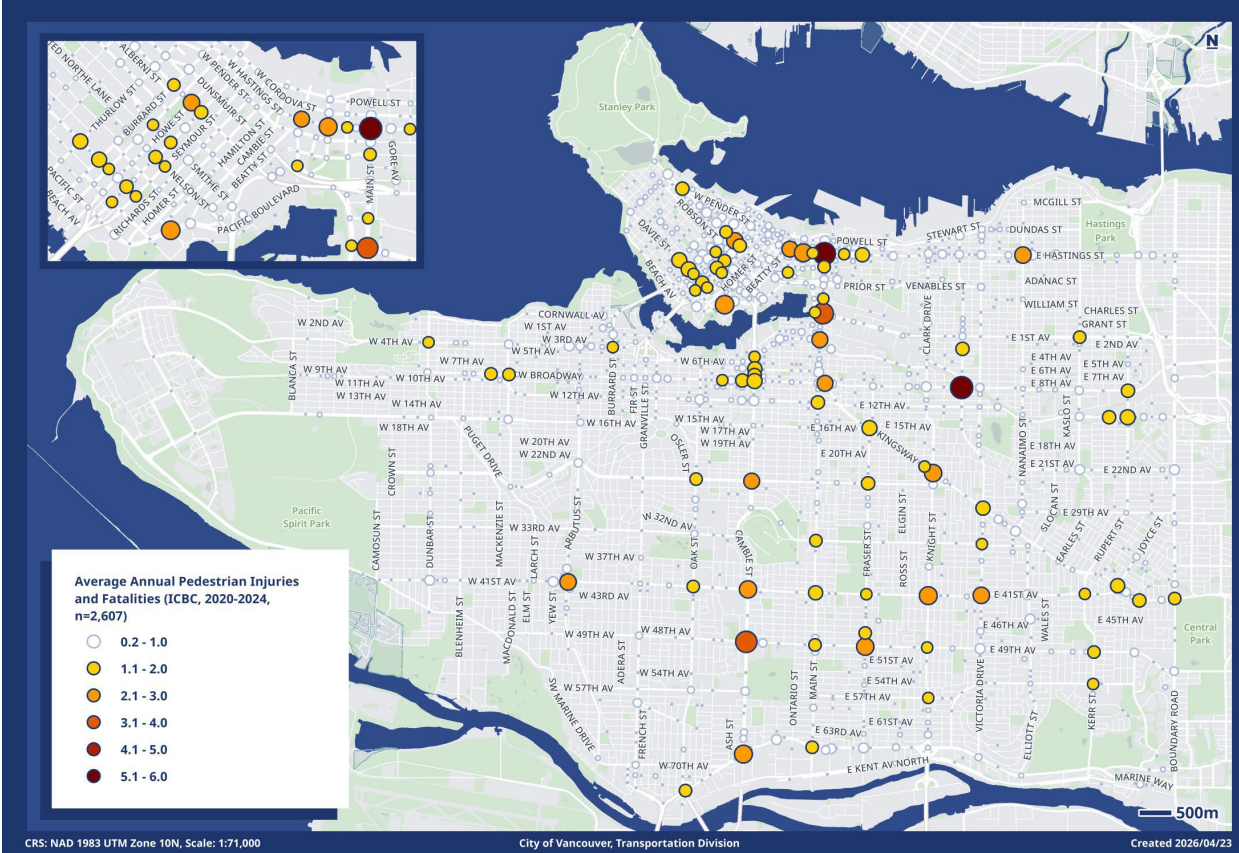
Rank #	LOCATION		average annual incidents
	N-S STREET	E-W STREET	
1	Main St	E Hastings St	8.8
2	Granville St	W King Edward Ave	8
3	Clark Dr	E 1 st Ave	7.8
4	Rupert St	Grandview Hwy	7.4
5T	Broughton St	W Georgia St	7.2
5T	Main St	Terminal Ave	7.2
7	Main St	E 41 st Ave	7
8	Rupert St	E 41 st Ave	6.6
9T	Granville St	W 4 th Ave	6.4
9T	Carrall St	E Hastings St	6.4
11	Knight St	E 41 st Ave	6
12T	Main St	Dunsmuir Viaduct	5.6
12T	Nanaimo St	S Grandview Hwy	5.6
12T	Clark Dr	Venables St	5.6
12T	Main St	E 33 rd Ave	5.6
16T	Boundary Rd	Grandview Hwy	5.4
16T	Rupert St	Kingsway	5.4
18T	Oak St	W 49 th Ave	5.2
18T	Victoria Dr	E 49 th Ave	5.2
20T	Main St	E 2 nd Ave	5
20T	Fraser St	SE Marine Dr	5
20T	Cambie St	SW Marine Dr	5
20T	Burrard St	W Georgia St	5

Figure 16. Map of traffic incidents requiring an ambulance – all modes of transportation (2019-2023).

Pedestrians – injuries and fatalities

ICBC + VPD

N = 2,607



Highest Injury and Fatality Locations Pedestrian-involved (2020-2024)

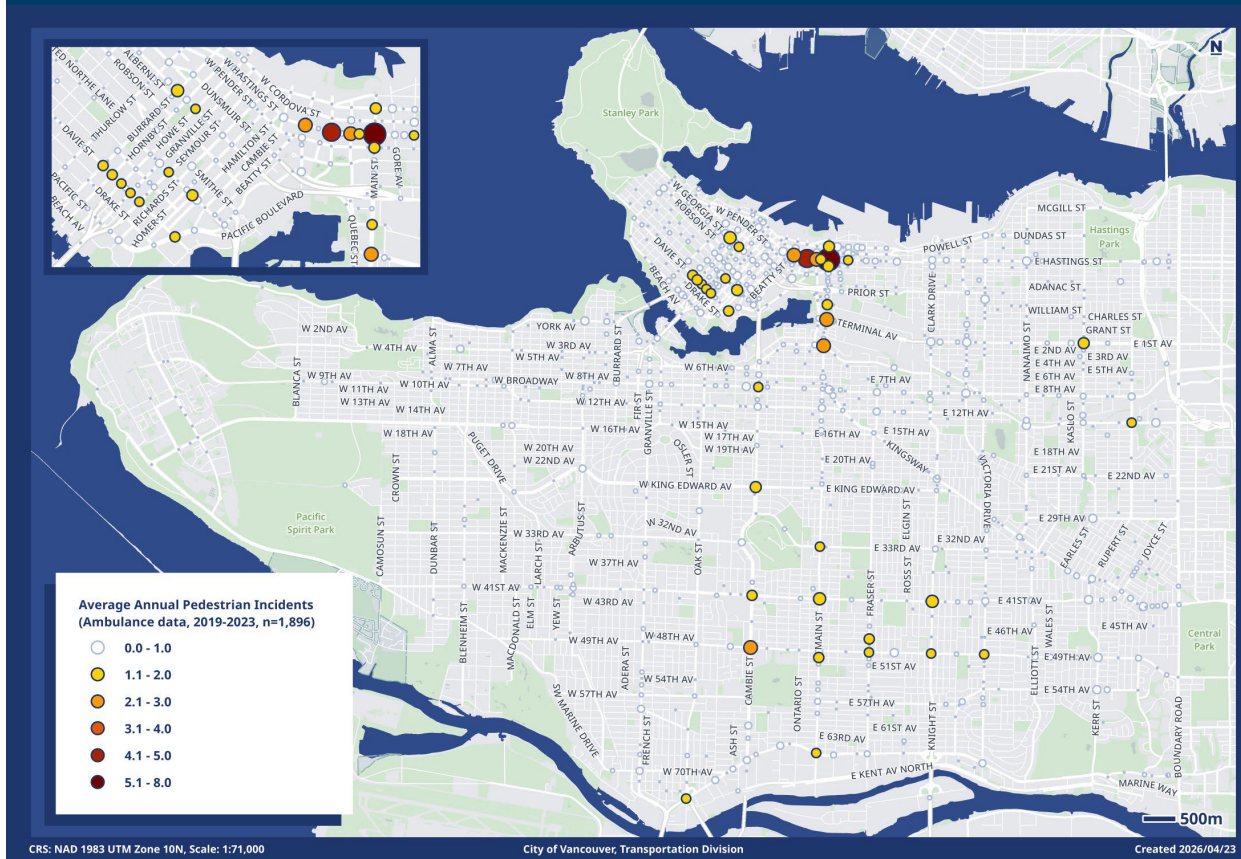
Rank #	LOCATION		average annual incidents
	N-S STREET	E-W STREET	
1	Commercial Dr	E Broadway	5.8
2	Main St	E Hastings St	5.2
3	Cambie St	W 49 th Ave	4
4	Main St	Terminal Ave	3.8
5	Pacific Boulevard	Davie St	3
6	Carrall St	E Hastings St	2.8
6T	Knight St	E 41 st Ave	2.8
6T	Cambie St	SW Marine Dr	2.8
9	Knight St	Kingsway	2.6
9T	Cambie St	W 41 st Ave	2.6
9T	Fraser St	E 49 th Ave	2.6
12	Howe St	Georgia St	2.4
12T	Nanaimo St	E Hastings St	2.4
12T	East Boulevard	W 41 st Ave	2.4
12T	Victoria Dr	E 41 st Ave	2.4
16	Abbott St	W Hastings St	2.2
16T	Main St	E 2 nd Ave	2.2
16T	Kingsway	E Broadway	2.2
16T	Cambie St	W King Edward Ave	2.2
20	Thurlow St	Davie St	2
20T	Burrard St	Davie St	2
20T	Cambie St	W Broadway	2
20T	Rupert St	Grandview Hwy	2
20T	Fraser St	E 16 th Ave	2

Figure 17. Map of ICBC-reported crashes resulting in injury or fatality – involving a pedestrian (2020-2024).

Pedestrians – Ambulance Incidents

BC Ambulance

N = 1,896



Highest Ambulance Locations All Modes of Transportation (2019-2023)

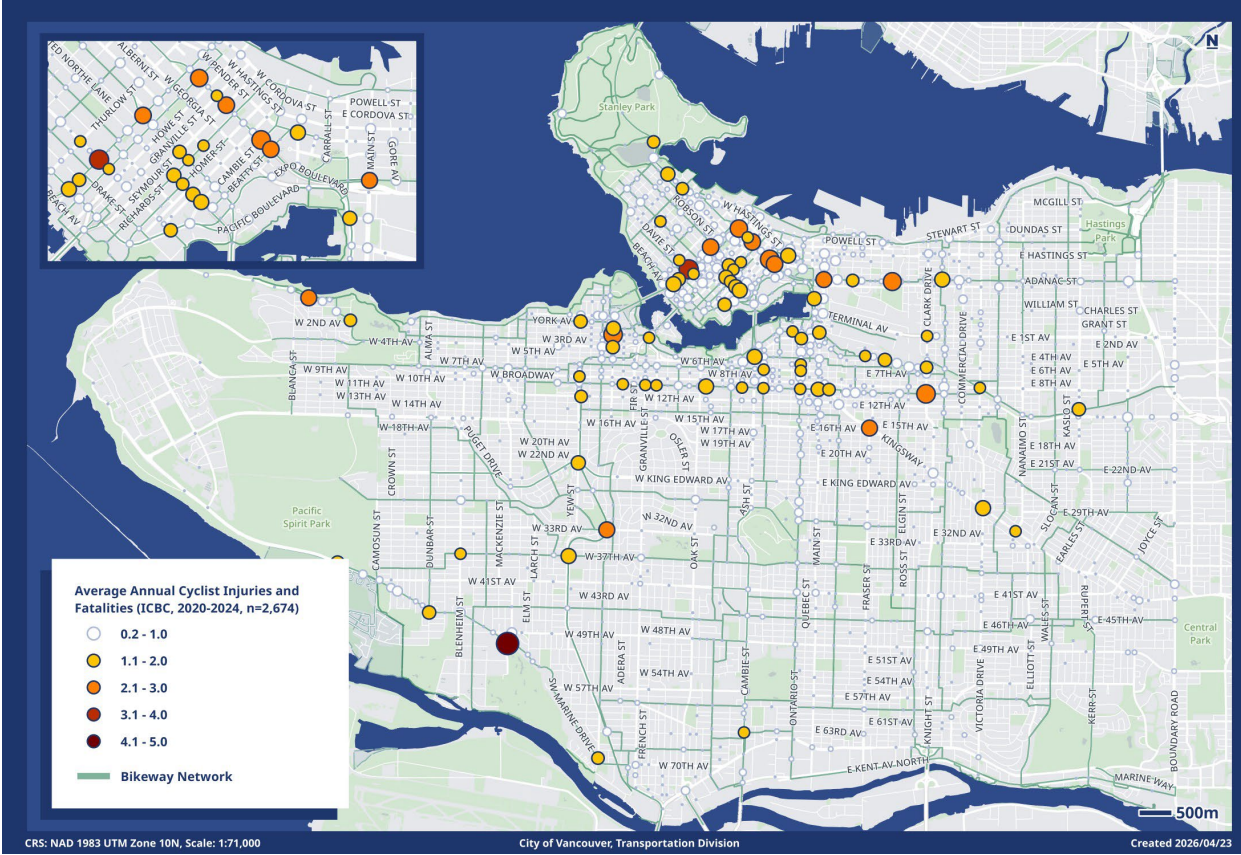
Rank #	LOCATION		average annual incidents
	N-S STREET	E-W STREET	
1	Main St	E Hastings St	7.2
2	Carrall St	E Hastings St	4.4
3	Main St	Terminal Ave	2.6
4T	Main St	E 2 nd Ave	2.4
4T	Cambie St	W 49 th Ave	2.4
4T	Abbott St	W Hastings St	2.4
4T	Columbia St	E Hastings St	2.4
8T	Knight St	E 41 st Ave	2
8T	Burrard St	W Georgia St	2
8T	Main St	E 41 st Ave	2
11T	Renfrew St	E 1 st Ave1	1.6
11T	Nelson St	Hamilton St	1.6
11T	Cambie St	W King Edward Ave	1.6
11T	Main St	Powell St	1.6
11T	Main St	E Pender St	1.6
16T		100 E Hastings	1.4
16T	Main St	National Ave	1.4
16T	Cambie St	W 41 st Ave	1.4
16T	Fraser St	E 47 th Ave	1.4
16T	Pacific Blvd	Davie St	1.4
16T	Burrard St	Davie St	1.4
16T	Main St	E 50 th Ave	1.4
16T	Hornby St	Davie St	1.4

Figure 18. Map of traffic incidents requiring an ambulance – involving a pedestrian (2019-2023).

Cyclists – injuries and fatalities

ICBC + VPD

N = 2,674



Highest Injury and Fatality Locations Cyclist-involved (2020-2024)

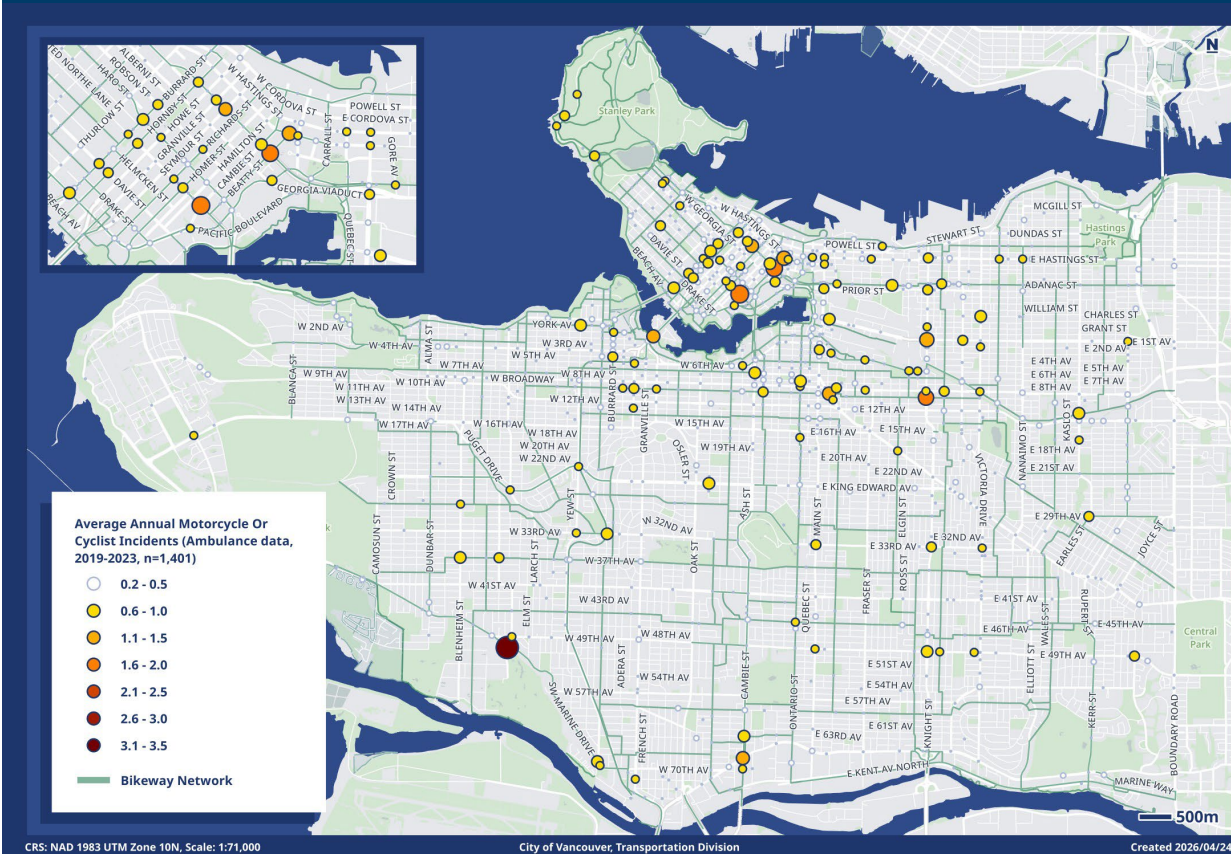
Rank #	LOCATION		average annual incidents
	N-S STREET	E-W STREET	
1	Macdonald St	SW Marine Dr	4.4
2	Burrard St	Davie St	3.2
3	Cambie St	Dunsmuir St	3
3T	Burrard St	W 2 nd Ave	3
3T	Clark Dr	E 10 th Ave	3
6	Campbell Ave	Union St	2.8
7	Hornby St	Dunsmuir St	2.6
8	Seymour St	Dunsmuir St	2.4
8T	Burrard St	Smithe St	2.4
8T	Beatty St	Dunsmuir St	2.4
11	Main St	Union St	2.2
11T	Tolmie St	NW Marine Dr	2.2
11T	Fraser St	E 16 th Ave	2.2
11T	Pine Crescent	W 33 rd Ave	2.2
12T	Abbott St	Pender St	2
12T	McLean St	Adanac St	2
12T	Burrard St	Pacific St	2
12T	Cambie St	Nelson St	2
12T	Cambie St	W 5 th Ave	2
12T	Laurel St	W 10 th Ave	2
12T	Victoria Dr	Kingsway	2
12T	West Boulevard	W 37 th Ave	2

Figure 19. Map of ICBC-reported crashes resulting in injury or fatality – involving a person cycling or using a micromobility device (2020-2024).

Cyclist or Motorcycle – Ambulance Incidents

BC Ambulance

N = 1,401



Rank #	LOCATION		average annual incidents
	N-S STREET	E-W STREET	
1	Macdonald St	SW Marine Dr	3.2
2	Cambie St	Nelson St	2
3	Beatty St	Dunsmuir St	1.8
4	Clark Dr	E 10 th Ave	1.6
5T	Clark Dr	E 1 st Ave	1.4
5T	Beatty St	Pender St	1.4
7T	Cambie St	SW Marine Dr	1.2
7T	Kingsway	E 10 th Ave	1.2
7T	Seymour St	Dunsmuir St	1.2
7T	Anderson St	Seawall	1.2
11T	Laurel St	W King Edward Ave	1
11T	Knight St	E 49 th Ave	1
11T	Cambie St	W 7 th Ave	1
11T	Cambie St	W 63 rd Ave	1
11T	Burrard St	Pacific St	1
11T	Station St	Terminal St	1
11T	Angus Dr	SW Marine Dr – md	1
11T	Victoria Dr	Charles St	1
11T	Burrard St	Smithe St	1
11T	Hebb Ave	E 12 th Ave	1
11T	Pine Cr	W 33 rd Ave	1
11T	Arbutus St	York Ave	1
11T	Cambie St	Dunsmuir St	1
11T	Campbell Ave	Union St	1
11T	Blenheim	W 37 th Ave	1
11T	Ontario St	W 8 th Ave	1

Figure 20. Map of traffic incidents requiring an ambulance – involving a person cycling, using a micromobility device or riding a motorcycle (2019-2023).

G. REFERENCES

- ¹ City of Vancouver, Transportation 2040: https://vancouver.ca/files/cov/Transportation_2040_Plan_as_adopted_by_Council.pdf
- ² TransLink, Transport 2050 (Chapter 4): https://vancouver.ca/files/cov/Transportation_2040_Plan_as_adopted_by_Council.pdf
- ³ Province of British Columbia, BC Road Safety Strategy 2025: https://www2.gov.bc.ca/assets/gov/driving-and-transportation/driving/roadsafetybc/strategy/bcrss_2025_final.pdf
- ⁴ Vision Zero Network, What is Vision Zero?: <https://visionzeronetwork.org/about/what-is-vision-zero/>
- ⁵ World Health Organization, Stockholm Declaration: Third Global Ministerial Conference on Road Safety: <https://www.roadsafetysweden.com/contentassets/b37f0951c837443eb9661668d5be439e/stockholm-declaration-english.pdf>
- ⁶ Statistics Canada, Census of Population (2000-2025); Vancouver Police Department, Crime Statistics (2000-2025).
- ⁷ National Institute for Occupational Safety and Health, Hierarchy of controls: <https://www.cdc.gov/niosh/hierarchy-of-controls>
- ⁸ Vancouver Police Department, Crime Statistics (2015-2024); Insurance Corporation of British Columbia, Collision Data (2015-2024).
- ⁹ Vancouver Police Department, Fatality Data (2021-2025); Vancouver Coastal Health, Traffic Injury Data (2021-2025); Insurance Corporation of British Columbia, Collision Data (2020-2024)
- ¹⁰ Vancouver Police Department, Fatality Data (2021-2025); Vancouver Coastal Health, Traffic Injury Data (2021-2025); Statistics Canada, Census of Population (2021)
- ¹¹ Vancouver Police Department, Fatality Data (2006-2024); Insurance Corporation of British Columbia, Injury Data (2006-2024). Rate-based calculations derived using population estimates based on Statistics Canada Census of Population.
- ¹² Finnish Broadcasting Company (Yle), Helsinki goes a full year without a traffic death: <https://yle.fi/a/74-20174831>
- ¹³ Insurance Corporation of British Columbia, [Fatal victims by top contributing factors \(2020-2024\)](#).
- ¹⁴ Insurance Corporation of British Columbia, One-in-four B.C. drivers surveyed admits to nodding off: <https://www.icbc.com/about-icbc/newsroom/2025-07-29-fatigue>
- ¹⁵ Insurance Corporation of British Columbia, Collision Data (2019-2023); Vancouver Police Department, Fatality Data (2019-2023); and Vancouver Coastal Health, Traffic Injury Data (2019-2024)
- ¹⁶ Yannis, G., & Michelaraki, E., Review of City-Wide 30 km/h Speed Limit Benefits in Europe: <https://doi.org/10.3390/su16114382>
- ¹⁷ The New York Times, 25 M.P.H. Speed Limit Takes Effect in New York: <https://www.nytimes.com/2014/11/08/nyregion/a-lower-speed-limit-takes-effect-in-the-city-lower-speed-maybe-not-much.html>
- ¹⁸ District Department of Transportation, 20 MPH Default Speed limit Frequently Asked Questions: <https://ddot.dc.gov/page/twenty-mph-20-mph-default-speed-limit-frequently-asked-questions>
- ¹⁹ City of Boston, 25 in Boston: <https://www.boston.gov/departments/transportation/25-boston>
- ²⁰ City of Minneapolis, Speed Limits: <https://www.minneapolismn.gov/government/programs-initiatives/visionzero/speed-limits/>
- ²¹ City of Melbourne, Road safety and speed limits: <https://www.melbourne.vic.gov.au/road-safety-and-speed-limits>
- ²² Australian Broadcasting Corporation, Sydney City Council drops local speed limit to 40 km/hr: <https://www.abc.net.au/listen/programs/pm/sydney-city-council-drops-local-speed-limit-to-40-km-hr/104077446>

-
- ²³ European Transport Safety Council, 20mph limits in London linked to sharp fall in road injuries and deaths, new report finds: <https://etsc.eu/20mph-limits-in-london-linked-to-sharp-fall-in-road-injuries-and-deaths-new-report-finds/>
- ²⁴ Deutsche Welle, Paris introduces citywide 30kmh speed limit: <https://www.dw.com/en/paris-introduces-citywide-30-kmh-speed-limit/a-59025358>
- ²⁵ Brussels Capital Region, Limit speed, everyone benefits: <https://be.brussels/en/transport-mobility/road-safety/safety-tips/limited-speed-everyone-benefits>
- ²⁶ Gemeente Amsterdam, 30 km/h in Amsterdam: https://openresearch.amsterdam/image/2025/9/25/english_version_research_report_30kmh_in_amsterdam-333338080.pdf
- ²⁷ Ajuntament de Barcelona, Barcelona 30 City: <https://www.barcelona.cat/mobilitat/en/barcelona-30-city>
- ²⁸ PLOS One, Impact of lowering the maximum speed limit of city roads on pedestrian traffic accident patients: A nationwide before-and-after study: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0325320>
- ²⁹ The Asahi Shimbun, Japan planning new 30 kph speed limit on narrow roads for safety: <https://www.asahi.com/ajw/articles/15287756>
- ³⁰ City of Toronto, Speed Limit Reductions: <https://www.toronto.ca/services-payments/streets-parking-transportation/road-safety/vision-zero/safety-initiatives/speed-limit-reductions/>
- ³¹ Canadian Association of Road Safety Professionals, Montreal's Interated Approach: <https://carsp.ca/en/news/carsp-news/francais-lapproche-integree-de-montreal/>
- ³² Science Direct, Assessing the effectiveness of speed limit reduction in Edmonton: A case study analysis. <https://www.sciencedirect.com/science/article/abs/pii/S0001457523004268>
- ³³ City of Victoria, Speed Limit Reductions on Arterial and Collector Streets: <https://pub-victoria.escribemeetings.com/filestream.ashx?DocumentId=100153>
- ³⁴ City of Squamish, Slow Down Downtown: <https://squamish.ca/transportation-parking-and-mobility/safer-streets/slowdown-downtown/>
- ³⁵ Omni Calculator, Stopping Distance Calculator: <https://www.omnicalculator.com/physics/stopping-distance>
- ³⁶ World Health Organization, Speed Management: A Road Safety Manual for Decision-Makers and Practitioners: <https://cdn.who.int/media/docs/default-source/documents/health-topics/road-traffic-injuries/speed-management-manual.pdf>
- ³⁷ Transportation Association of Canada, Geometric Design Guide for Canadian Roads Part 1. 1.25.2 – 1.2.5.4.
- ³⁸ Global Designing Cities Initiative, Designing for Safe Speeds: <https://globaldesigningcities.org/publication/designing-for-safe-speeds/>
- ³⁹ Victoria, Camera locations throughout Victoria: <https://www.vic.gov.au/find-road-safety-camera#camera-locations-throughout-victoria>
- ⁴⁰ Victoria, Mobile digital road safety cameras: <https://www.vic.gov.au/mobile-road-safety-cameras>
- ⁴¹ Monash University Accident Research Centre, the History and Development of Speed Camera use: https://www.monash.edu/_data/assets/pdf_file/0008/216854/The-history-and-development-of-speed-camera-use.pdf
- ⁴² Victoria, Revenue from road safety camera fines: <https://www.vic.gov.au/revenue-fines>
- ⁴³ Victoria, Driver compliance rates: <https://www.vic.gov.au/driver-compliance>
- ⁴⁴ City of Vancouver, School Slow Zones on Arterials Program: <https://vancouver.ca/people-programs/school-slow-zones-on-arterials-program.aspx>

-
- ⁴⁵ World Health Organization, Save LIVES: <https://cdn.who.int/media/docs/default-source/infographics-pdf/road-safety/savelives-speed-flyer.pdf>
- ⁴⁶ City of Vancouver, Neighbourhood Slow Zone Program: <https://vancouver.ca/streets-transportation/neighbourhood-slow-zone-program.aspx>
- ⁴⁷ City of Vancouver, Safer Slower Streets: <https://council.vancouver.ca/20250709/documents/pspc1.pdf>
- ⁴⁸ City of Vancouver, Permanent public plaza now open on Robson-street: <https://vancouver.ca/news-calendar/permanent-public-plaza-robson-street-dec-2025.aspx>
- ⁴⁹ City of Vancouver, Neighbourhood Traffic Management Program: <https://vancouver.ca/streets-transportation/neighbourhood-traffic-management-program.aspx>
- ⁵⁰ City of Vancouver, School Active Travel: <https://vancouver.ca/streets-transportation/school-active-travel-planning.aspx>
- ⁵¹ TransLink, Major Road Network: <https://www.translink.ca/plans-and-projects/projects/roads-bridges-and-goods-movement#major-road-network>
- ⁵² City of Vancouver, Engineering Design Manual: <https://vancouver.ca/files/cov/engineering-design-manual.PDF>
- ⁵³ CROW Platform: <https://crowplatform.com/>
- ⁵⁴ National Association of City Transportation Officials: <https://nacto.org/>
- ⁵⁵ UBC Conflict Analysis Study (2016, 2019).
- ⁵⁶ City of Vancouver, Burrard Bridge Renewal and Transportation Improvement Project (2009-2013 data): https://www.tac-atc.ca/wp-content/uploads/burard_bridge_complete.pdf; Insurance Corporation of British Columbia, Lower Mainland Crashes (2020-2024 data): <https://public.tableau.com/app/profile/icbc/viz/LowerMainlandCrashes/LMDashboard>
- ⁵⁷ U.S. Department of Transportation Federal Highway Administration, Why Consider a Road Diet?: <https://highways.dot.gov/safety/other/road-diets/road-diet-informational-guide/2-why-consider-road-diet>
- ⁵⁸ University of British Columbia, Intersection Safety Evaluation Using Automated Video Analysis.
- ⁵⁹ City of Vancouver, Improving our Cycling Network: <https://vancouver.ca/streets-transportation/improving-our-cycling-network.aspx>
- ⁶⁰ City of Vancouver, Transportation Design Guidelines: All Ages and Abilities Cycling Routes: <https://vancouver.ca/files/cov/design-guidelines-for-all-ages-and-abilities-cycling-routes.pdf>
- ⁶¹ City of Vancouver, VanGO: <https://vancouver.ca/streets-transportation/vango.aspx>
- ⁶² City of Vancouver, School Slow Zones on Arterials Program: <https://vancouver.ca/people-programs/school-slow-zones-on-arterials-program.aspx>
- ⁶³ City of Vancouver, School Streets: <https://vancouver.ca/people-programs/school-streets.aspx>
- ⁶⁴ City of Vancouver, Walking School Bus: <https://vancouver.ca/people-programs/walking-school-bus.aspx>
- ⁶⁵ HUB Cycling, Parent-led Bike Bus Resources: <https://bikehub.ca/parent-led-bike-bus-resources>
- ⁶⁶ HUB Cycling, Bike Education in Schools: <https://bikehub.ca/bike-to-school>
- ⁶⁷ HUB Cycling, Ride the Road: <https://bikehub.ca/education/ride-the-road>
- ⁶⁸ Mobi, Community Pass: <https://www.mobibikes.ca/en/community-pass>

-
- ⁶⁹ City of Vancouver, Walk Bike Roll Mini Grant, Program: <https://vancouver.ca/people-programs/walk-bike-roll-mini-grant-program.aspx>
- ⁷⁰ HUB Cycling, Bike to School Week: <https://bikehub.ca/events/bike-school-week>
- ⁷¹ Province of British Columbia, Motor Vehicle Act: https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/96318_00
- ⁷² City of Vancouver, Street & Traffic Bylaw: <https://vancouver.ca/your-government/street-traffic-bylaw.aspx>
- ⁷³ Province of British Columbia, Where the intersection safety cameras are: <https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/roadsafetybc/intersection-safety-cameras/where-the-cameras-are#camera-locations>
- ⁷⁴ Vancouver is Awesome, Mario Canseco: Most British Columbians want 30km/h limits in their own city: <https://www.vancouverisawesome.com/economy-law-politics/mario-canseco-most-british-columbians-want-30-kmh-limits-in-their-own-city-11742232>
- ⁷⁵ City of Vancouver, City expands cycling education to all grade 6 and 7 students in Vancouver public schools: <https://vancouver.ca/news-calendar/city-expands-cycling-education-to-all-grade-6-and-7-students-in-vancouver-public-schools.aspx>
- ⁷⁶ HUB Cycling, StreetWise Cycling Education Centres: <https://vancouver.ca/streets-transportation/vango.aspx>
- ⁷⁷ Seniors on the Move, <https://www.seniorsonthemove.org/>
- ⁷⁸ Province of British Columbia, Sharing the road safely: <https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/road-safety-rules-and-consequences/vulnerable>
- ⁷⁹ Province of British Columbia, Automated (self-driving) vehicles: <https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/road-safety-rules-and-consequences/self-drive>
- ⁸⁰ Vancouver Police Department, Speed Watch: <https://vpd.ca/crime-prevention-safety/speed-watch/>
- ⁸¹ Vancouver Police Department, Road Safety: <https://vpd.ca/crime-prevention-safety/road-safety/>
- ⁸² Province of British Columbia, the Driver Improvement Program: <https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/roadsafetybc/high-risk-driver/driver-improvement>
- ⁸³ The Insurance Institute for Highway Safety, Vehicles with higher, more vertical front ends pose greater risk to pedestrians: <https://www.iihs.org/news/detail/vehicles-with-higher-more-vertical-front-ends-pose-greater-risk-to-pedestrians>
- ⁸⁴ Coalition to Reduce Auto Sized Hazards, Oversized Danger: Report and Recommendations to Address the Danger of Pickups and Large SUVs to Pedestrians and Cyclists in Canada: <https://www.mcleishorlando.com/wp-content/uploads/2024/04/Oversized-Report.pdf>
- ⁸⁵ ICBC, 2016-2024 data.
- ⁸⁶ Province of BC, Be truck aware: <https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/road-safety-rules-and-consequences/be-truck-aware#stats>
- ⁸⁷ Government of Canada, Background: Advanced Driver Assistance Systems: <https://tc.canada.ca/en/corporate-services/consultations/background-advanced-driver-assistance-systems>
- ⁸⁸ Table based on SAE International, Clearing the Confusion: Recommended Common Naming for Advanced Driver Assistance Technologies: <https://legacy.sae.org/binaries/content/assets/cm/content/miscellaneous/adas-nomenclature.pdf>

-
- ⁸⁹ New York City Citywide Administration Services, City of New York Advances Fleet Safety with New Technologies in Updated Vision Zero Plan; Exceeds 100k Safety Upgrades: <https://www.nyc.gov/site/dcas/news/002-25/city-new-york-advances-fleet-safety-new-technologies-updated-vision-zero-plan-exceeds>
- ⁹⁰ Cambridge Mobile Telematics: <https://www.cmtelematics.com/safe-driving-technology/how-it-works/>
- ⁹¹ Cambridge Mobile Telematics StreetVision: <https://www.cmtelematics.com/streetvision-overview/>
- ⁹² U.S. Department of Transportation Volpe Center, Truck Lateral Protective Device (LPD) Resources: <https://www.volpe.dot.gov/LPDs>
- ⁹³ Transportation Research Board, Study of Trick Side Guards to Reduce Pedestrian Fatalities: <https://rip.trb.org/View/1497971>
- ⁹⁴ City of Boston, 2013 Truck Side Guard Pilot: <https://www.boston.gov/departments/innovation-and-technology/2013-truck-side-guard-pilot>
- ⁹⁵ Province of British Columbia, Driver Improvement Program: <https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/roadsafetybc/high-risk-driver/driver-improvement>
- ⁹⁶ City of Portland, Annual Deadly Traffic Crash Report: <https://www.portland.gov/transportation/vision-zero/annual-deadly-traffic-crash-report>
- ⁹⁷ Australian Government, Monthly Road Deaths: <https://datahub.roadsafety.gov.au/progress-reporting/monthly-road-deaths>
- ⁹⁸ BC Injury Research and Prevention Unit. Injury Data Online Tool: <https://data.injuryresearch.bc.ca/datatools/TASDataTool.aspx>
- ⁹⁹ Insurance Corporation of British Columbia, Crashes involving cyclists (2020-2024): <https://public.tableau.com/app/profile/icbc/viz/BC-CrashesinvolvingCyclists-/CyclistsDashboard>
- ¹⁰⁰ Vancouver Sun, Cyclist killed in afternoon traffic in east Vancouver: <https://vancouversun.com/news/local-news/cyclist-killed-in-afternoon-traffic-in-east-vancouver>