

VISION ZERO EDMONTON

2021 ANNUAL REPORT

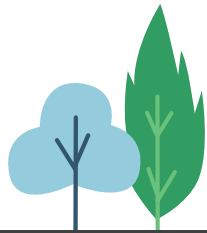


VISION
ZERO

Edmonton

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A report of Edmonton's progress toward Vision Zero in 2021.



Dedication

In 2021, 16 people lost their lives and 259 were seriously injured on Edmonton's streets. This report is dedicated to those individuals.

Together, we can achieve Vision Zero in Edmonton through safe and livable streets.

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EDMONTON'S APPROACH TO SAFE AND LIVABLE STREETS

What is Vision Zero?

Edmonton's goal of Vision Zero is to eliminate all traffic fatalities and serious injuries by 2032 through safe and equitable mobility for all. Streets are for people and all the ways they use them. This helps create a city in which all people, regardless of age, ability or mode, can travel safely, easily and comfortably.

Since adopting Vision Zero in 2015, fatalities on our streets have decreased by 50% and serious injuries have decreased by 32%. While progress has been made, we continue to prioritize safety through the Safe Mobility Strategy because no loss of life is acceptable.

The Safe Mobility Strategy

The Safe Mobility Strategy (2021–2025) is a guiding document the City uses to prioritize work to reach Vision Zero and support a healthy, thriving city.

To create a safe system, the Strategy organizes implementation into four themes and 16 key actions.

Community of Safe Communities	Safety at Every Step	Listen, Learn, Lead	Equitable Safety
<ul style="list-style-type: none"> Community Activation Vision Zero Development Initiative Positive Enforcement Campaigns Speed Limit Reduction 	<ul style="list-style-type: none"> Safe Crossings School Safety Project Integration Vision Zero and City Policy 	<ul style="list-style-type: none"> Strategic Collaboration with the Edmonton Police Service Safe Mobility Academic Working Group Expanded Monitoring Technology Partnering to Advance Safety Priorities 	<ul style="list-style-type: none"> Proactive Safety Reviews Prioritization Criteria Focused Relationship Building To Address Inequity Project Transparency and Communication



Thank you to Vision Zero Partners and Advocates

Vision Zero cannot be achieved without the many dedicated individuals, groups, and organizations that support safe mobility in Edmonton.



TOP ACCOMPLISHMENTS OF 2021

A Safer Speed Limit on Residential and High Pedestrian Activity Streets

WHAT? On August 6, 2021, the default speed limit in Edmonton became 40 km/h. This reduced the speed limit from 50 km/h to 40 km/h on most residential, downtown, and high pedestrian activity streets.

WHY? Slowing down gives people more time to react to the unexpected, prevent crashes, and reduce the severity of crashes that do happen. This makes streets safer and more livable.



IN THE FIRST YEAR OF THE PROGRAM:

Speed Limit Signs



In total, 1,058 signs were installed to communicate the change in speed limit. Entrance signage at city limits was also installed to inform visitors of the City's 40 km/h default speed.

Did you know?



Driving at 40 km/h instead of 50 km/h does not add any significant commuting time to most trips around the city.

[Estimated Time of Arrival Tool](#)

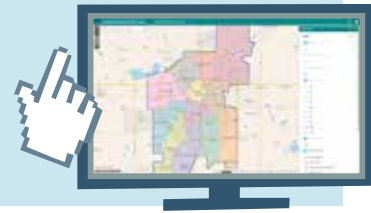
Safe Speeds Toolkit

Edmontonians were invited to use the Safe Speeds Toolkit to support the implementation of the new 40 km/h default speed limit.



Speed Limit Map

Visit edmonton.ca/VisionZero to access an interactive map to show the locations of the new 40 km/h speed limit.



Compliance

The campaign was successful in communicating speed limit change to residents. After four months of enforcement, automated enforcement data shows that the percentage of drivers complying with the new speed limit on 40 km/h streets rose steadily until it reached **88% in December**.

Compliance Trends Along 40 km/h Streets From September to December

	Number of Hours Enforced	Tickets per Hour of Enforcement	% Compliance
September 2021	741	2.7	77%
October 2021	751	2.3	78%
November 2021	659	1.6	81%
December 2021	450	0.6	88%



"I think the change represents an acknowledgement of the decade of advocacy that's really been done by community members. This conversation really started, and has been driven, by ordinary citizens, regular people living and working in their communities. So, it's a beautiful recognition of that work."

Stephanie Kovach, Community Planning Advisor at EFLC

I think the shift to 40 km/h has awoken more people to what 'Safer Streets' mean. The changes indicated to folks that the previous way we looked at roads isn't how the transportation system should work or can work. Edmontonians will continue to support changes to create a safer, more inclusive transportation system.

Stephen Raitz, Chair of Paths for People



"I'm hoping this [40 km/h speed limit] is one step forward for the city to have people a little more aware when they're in their vehicles to pay a little closer attention, slow down, so that it's safer for the people who are the most vulnerable."

Cherie Klassen, Old Strathcona Business Association Executive Director

What's next?

The City will continue to evaluate the streets included in this change to determine if any adjustments would better support safe mobility in Edmonton. The evaluation will include collecting and analyzing before and after speed data.



Introducing 3 Ways to Get Involved

WHAT? In 2021, the City launched three programs to create ways for Edmontonians to get involved and help make their streets safer:

- 1 Vision Zero Street Labs
- 2 Safe Speeds Toolkit
- 3 Vision Zero School Kit

WHY? Community activation creates programming and tools which support community involvement and ability to influence street safety and livability.



Community members participating in the installation of Edmonton's first Vision Zero Street Lab in Westmount.

IN THE FIRST YEAR OF THESE PROGRAMS:

18

community groups began planning their Vision Zero Street Lab

5

Vision Zero Street Labs were installed on-street

3,541

community signs were delivered to Edmontonians as part of the Safe Speeds Toolkit

233

portable Driver Feedback Signs (DFS) were deployed, honoring 315 citizen requests

31

schools signed up for a Vision Zero School Kit



"Street Labs are a good way to bring neighbours together and the crosswalk activity was brilliant...I hope they'll draw attention. To have these corridors as safe spaces is important."

Westmount Community Project Co-Lead

LEARN


Interested in understanding how Vision Zero Street Labs address neighbourhood traffic concerns such as encouraging safer speeds, safer crossings, and other safety and livability concerns?

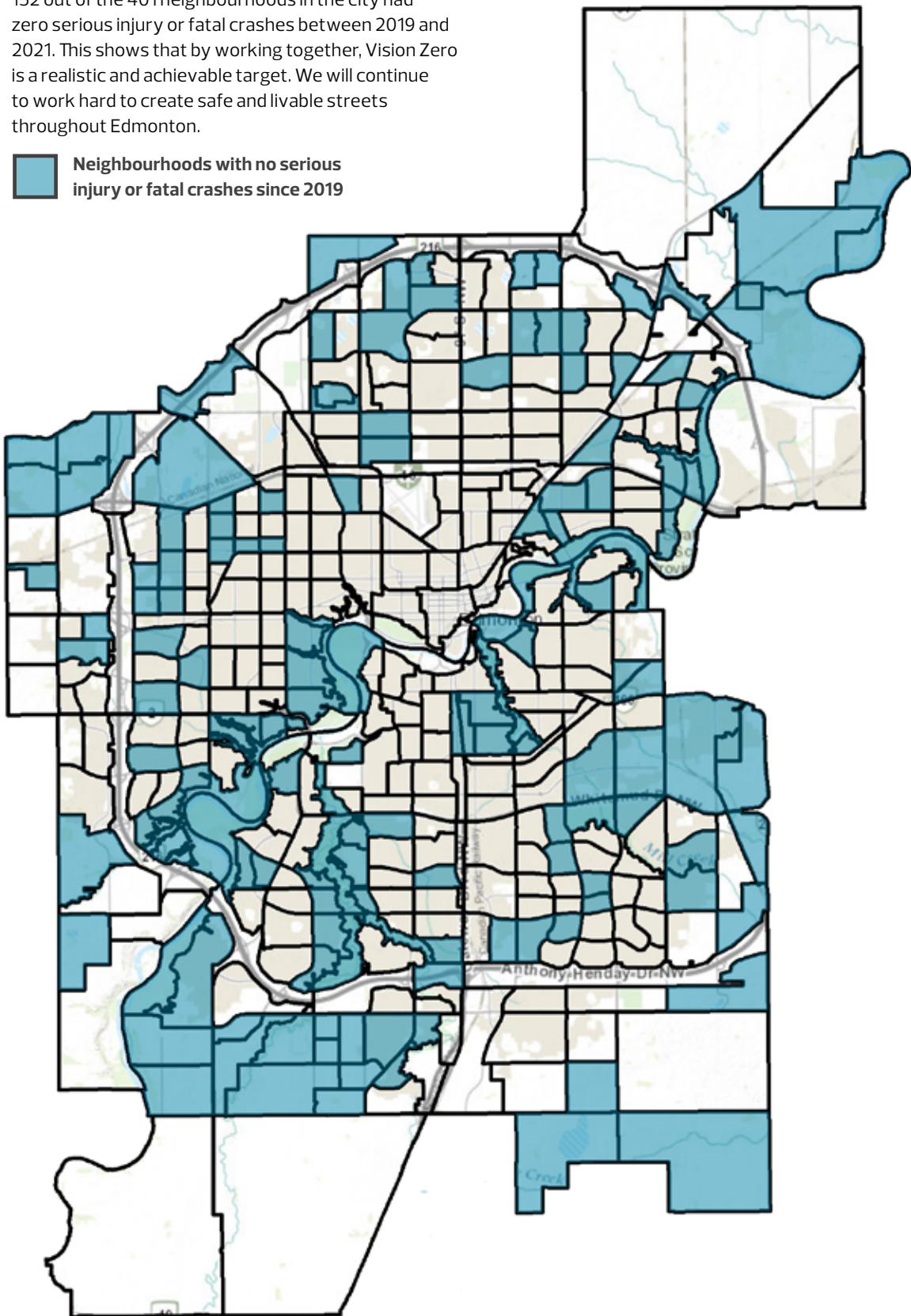
Learn more at edmonton.ca/VisionZero



City-wide Progress Towards Vision Zero

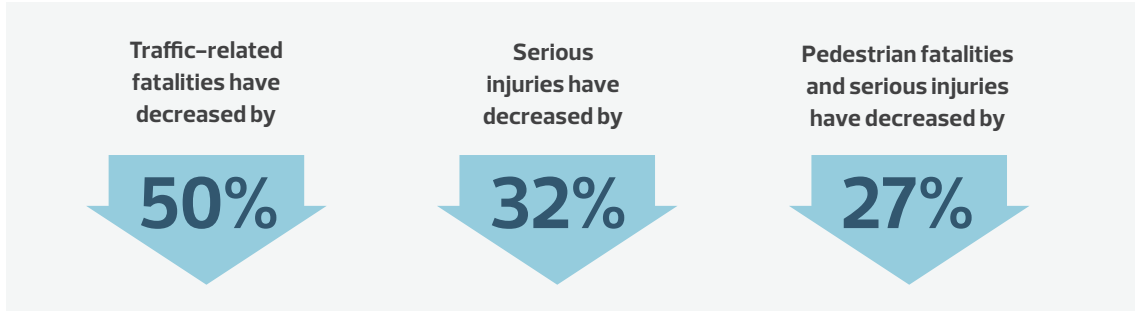
152 out of the 401 neighbourhoods in the city had zero serious injury or fatal crashes between 2019 and 2021. This shows that by working together, Vision Zero is a realistic and achievable target. We will continue to work hard to create safe and livable streets throughout Edmonton.

 Neighbourhoods with no serious injury or fatal crashes since 2019

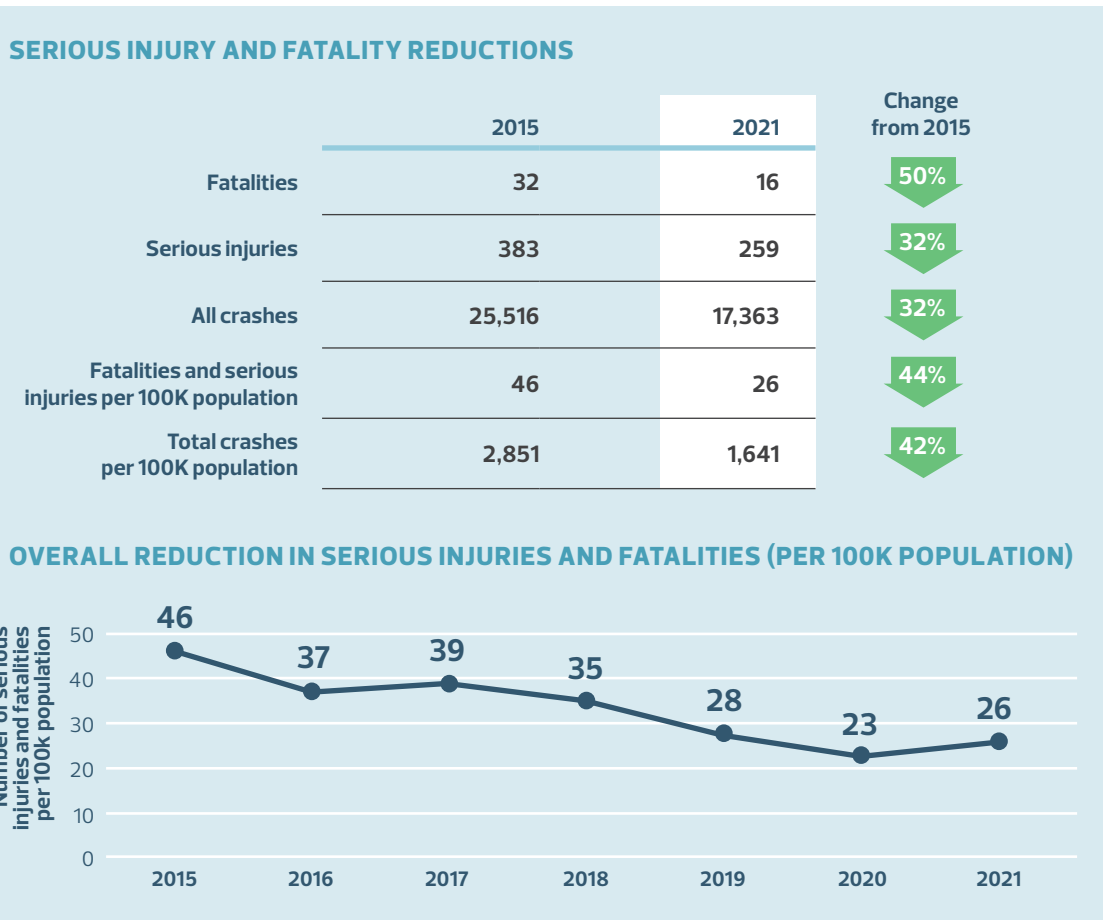


CRASH TRENDS AND CAUSES

Based on the crashes which occurred on Edmonton streets in 2021, since Vision Zero was adopted in 2015:



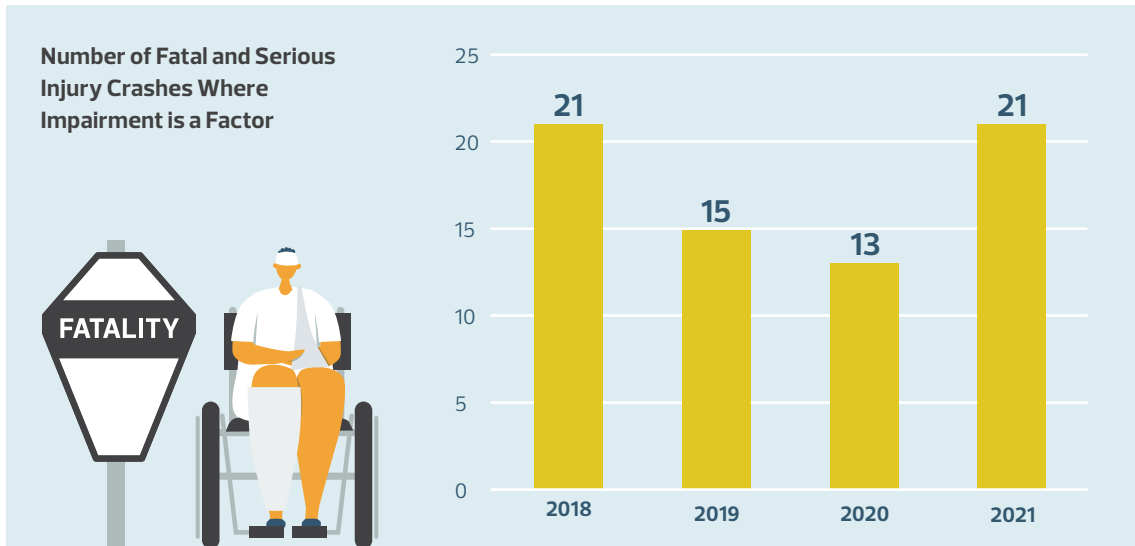
Total Serious Injuries and Fatalities



Although the overall trend of crashes is decreasing since 2015, the number of fatalities in 2021 was slightly higher than in 2020. Among the 16 people who lost their lives on the road in 2021, one was a cyclist, two were motorcyclists, five were pedestrians, and eight were vehicle occupants.

IMPACT OF IMPAIRMENT

The number of fatal and serious injury crashes where impairment was a factor in 2021 was high; it increased in 2021 after a period of a downward trend as shown in the figure below. This serves as a reminder for all of us that driving under the influence endangers not only the life of the driver, but all people on the road.

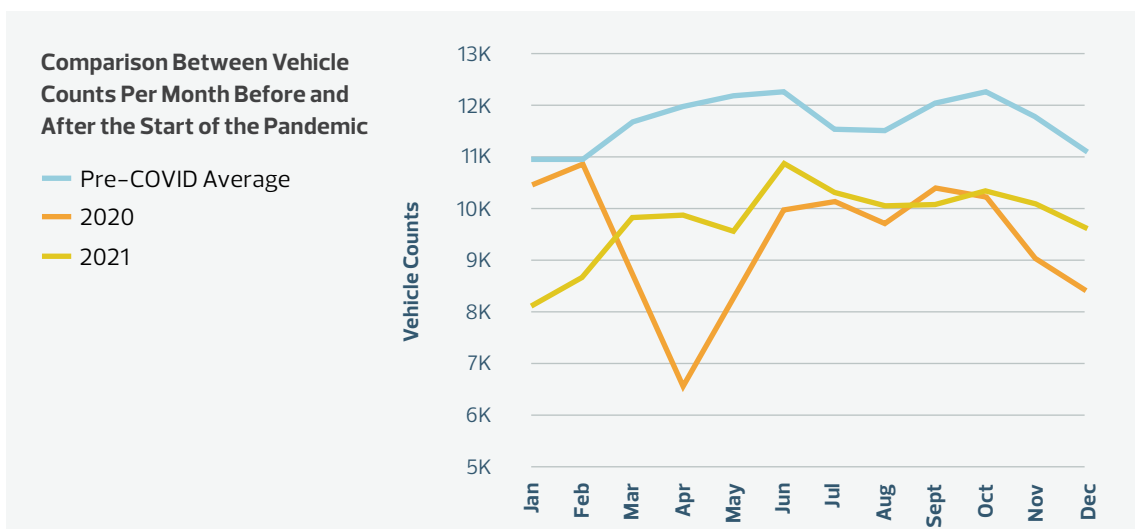


IMPACT OF COVID-19 ON CRASH TRENDS

At the start of the COVID-19 pandemic in 2020, Edmontonians were asked to stay home as a public health safety measure.

In 2021, travel patterns are returning to normal, however, traffic volumes are still lower than the pre-COVID average.

As the data shows, 2020 was an outlier year in terms of vehicle volumes, travel patterns and crash numbers. That is why 2020 was not used as a benchmark, and it was more appropriate to compare 2021 crash numbers with the pre-COVID years 2018 and 2019.



Trends of Serious and Fatal Injuries





Since adopting Vision Zero in 2015, fatalities and serious injuries by different travel modes have decreased at various degrees. The exception is cycling, as there has been a 17% increase in these types of crashes.

Did you know?

While vehicular traffic has seen an overall reduction since 2019, there has been an exciting increase in the number of people biking during the same period. Unfortunately, this increase was associated with a higher crash risk for cyclists.

Edmontonians are choosing healthier and more active lifestyles, and the City is committed to protecting their safety regardless of their mode of transportation.



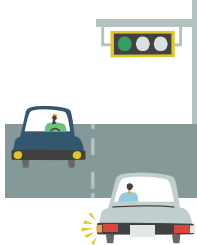


SERIOUS INJURIES AND FATALITIES BY MODE

	2015	2021	
 Cycling	23	27	17% ↑
 Motorcycling	49	24	51% ↓
 Walking, rolling or using mobility aids	70	51	27% ↓
 Drivers and/or passengers in vehicles	270	168	38% ↓

Trends for Edmonton's Top Crash Causes

The [Crash and Equity Analysis Technical Report](#) identified the five crash types that occur most frequently in Edmonton and lead to fatalities and serious injuries.

The following behaviours that contribute to serious and fatal injury crashes have been decreasing since 2015. This illustrates that the transportation system is not forgiving of driver errors and the vulnerability of people outside of vehicles.

					
	Drivers not yielding to people who have the right of way.	Drivers following too closely.	Drivers turning left across the path of others.	Drivers driving off the road.	Drivers running red lights.
2015	34	57	53	68	43
2021	30	29	27	54	26
	12% ↓	49% ↓	49% ↓	21% ↓	40% ↓

ADDRESSING INEQUITIES THROUGH SAFE MOBILITY

The City uses a GBA+ lens and equity analysis to identify groups and modes for which Edmonton's transportation system is less safe and to address underlying inequities enabling everyone to thrive. This section will feature two projects to highlight how the City is working to support safe streets for all.

Feature Project: The Evolution of the Safe Crossings Program



Pedestrian scrambles are one of the ways crossings can be made safer through design. In 2021, two additional pedestrian scrambles were installed in Edmonton, both in high activity locations along Whyte Avenue.

WHAT? Each year, funds from the Traffic Safety Automated Enforcement Reserve are used to make crossings safer through the Safe Crossings Program.

In 2021, the City developed a new approach to review and prioritize Safe Crossings projects.

WHY? Safe crossings are essential to community connectivity, safety, and livability.

Overall, collisions have been going down, but we know that our work is not done. In 2021, 106 people were injured while crossing the road with right of way, either at a marked crossing, at a signalized intersection with a walk sign, or at an unmarked crossing. This accounts for 63% of all traffic crash related pedestrian injuries and fatalities in 2021.

"It is important that people feel safe when crossing a street. We have already heard from Edmontonians about how the refreshed approach to select crosswalk locations aligns with their lived experience."

Tazul Islam, Senior Engineer with Safe Mobility Engineering at the City of Edmonton

EXPLORE

Visit edmonton.ca/VisionZero to find the status of each Safe Crossings project, determine the findings of each review, and understand how crossing upgrades are determined by the City.

What's Next?

48 crossings were upgraded to support safer travel for all in 2021, and since Vision Zero was adopted in 2015, more than 300 crossings have been upgraded.

Equity Lens

To prioritize projects where they are needed the most, the Safe Crossings Program now incorporates proximity to community gathering locations and essential services (such as schools, playgrounds, senior centres and hospitals). Data on bus ridership and census data is also incorporated to support people who do not use a personal vehicle as their primary mode of transportation.

LEARN

What control types are used for Safe Crossings?

As part of the Safe Crossings Program, the City may upgrade the crossing using a rapid flashing beacon, pedestrian traffic signal, curb extension, or more. Each of these controls improve crossing safety in different ways and are chosen based on the unique attributes of each location.

Learn about the different controls used in the Safe Crossings Program at edmonton.ca/VisionZero.



Feature Project: Safe Passing Bylaw



"This is going to be critical for the City to encourage people to take bicycles to and from...Edmonton [is] leading by example with this bylaw."

Doug Bowes, Co-chair of Alberta Cycling Coalition

"The Safe Passing Bylaw has been able to be a talking point with people. The impact has been in the background, reminding people that things are going to change in the coming spring and summer."

Annie McKittrick, Co-chair of Alberta Cycling Coalition

WHAT? The City passed a Charter Bylaw to set minimum safe passing distances that motor vehicle drivers need to give cyclists when passing them on the road.

The required distance is a minimum of:

- 1 metre between the vehicle and the bicycle where the posted speed limit is 60 km/h or less, and
- 1.5 metres between the vehicle and the bicycle where the posted speed limit is greater than 60 km/h.

WHY? Throughout the public engagement conducted to inform the Safe Mobility Strategy, people reported that close passing and aggressive driving are top safety concerns when they are cycling. Research has also shown that drivers give more space when passing cyclists in jurisdictions that have safe passing laws than in jurisdictions that do not.

What's Next?

In June of 2022, the City will launch a campaign to educate people driving about the Safe Passing Bylaw, and other behaviours they can take to help keep everyone safe on our streets.

Equity Lens

The Crash and Equity Analysis Technical Report, which was used to inform the Safe Mobility Strategy, identified that while progress has been made, it is not equal for all modes. Serious injuries and fatalities involving motorcyclists, vehicle drivers and/or passengers, and pedestrians decreased by 51%, 38%, and 27%. Whereas serious injuries and fatalities to cyclists increased by 17%.

For these reasons, the Safe Passing Bylaw was proposed and education on vulnerable road users' intersection safety and right of way will be a focus for 2022.



Monitoring Crash Data in Edmonton's 15 Crash Prone Neighborhoods

The [Crash and Equity Analysis Technical Report](#) also identified 15 crash-prone neighborhoods in Edmonton.

Since the release of the Safe Mobility Strategy in 2020, Edmonton's top 15 crash neighbourhoods have experienced crash reductions which ranged from 25% to 50%.

A variety of efforts have been made by the City to improve the safety at these neighbourhoods, including:

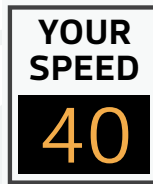
Several neighbourhoods underwent or are currently in construction for **neighbourhood renewal**, including renewing and rebuilding roads, sidewalks, and street lights in the following neighbourhoods:

- Alberta Avenue
- Central McDougall
- Eastwood
- Strathcona



20

permanent driver feedback signs



766

total average mobile photo enforcement hours spent per neighbourhood in the two year period

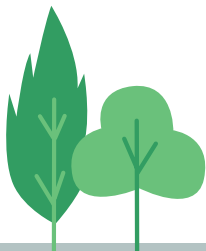


21

upgraded crosswalks as part of Safe Crossings since 2020



Street Labs have been implemented in Oliver and Westmount



SAFE SPEEDS BENEFIT EVERYONE

Edmontonians are concerned about unsafe speeds and know that slower speeds increase safety and livability for everyone, whether they are driving, biking, walking, rolling, or using mobility aids.

The figure below demonstrates how the chances of survival increase as speed decreases.

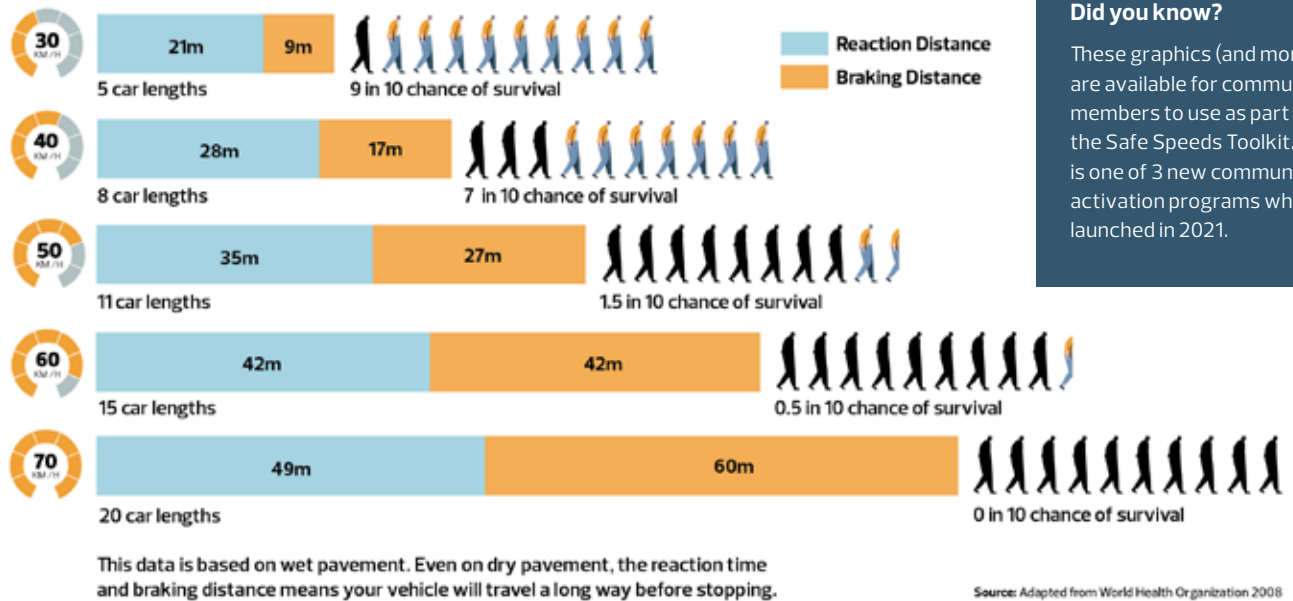
Speed increases braking distance

It takes an average of 2.5 seconds for a driver to react to a hazard on the road and start applying the brakes. So, when driving at 30 km/h, the vehicle will have travelled 21 metres before the driver applied the brakes and an additional 9 meters of braking distance before stopping completely.



Did you know?

These graphics (and more) are available for community members to use as part of the Safe Speeds Toolkit. This is one of 3 new community activation programs which launched in 2021.



The figure below demonstrates how speed impacts field of vision, survival rate, and braking distance at 50 km/h and 40 km/h (Edmonton's current default speed limit).

Slowing down means drivers see more, saves lives and gives drivers time to react to avoid a collision.



A Safe Systems Approach to Safe Speeds

As part of a safe systems approach, the City of Edmonton works with community groups and traffic safety experts to encourage safe speeds.

Countermeasures used to encourage safe speeds in 2021 included:

DRIVER FEEDBACK SIGNS (DFS):

Portable DFS were used at 233 locations in Edmonton of which 35 locations were selected to support the new 40 km/h speed limit. An additional 212 stationary DFS were operational on roads around Edmonton.

AUTOMATED ENFORCEMENT:

105 Intersection Safety Devices in operation.
53,016 hours of mobile speed enforcement at 535 sites.
2,601 hours at 40 km/h sites to support the new speed limit.



SAFE SPEEDS TOOLKIT:

3,541 community signs were delivered to Edmontonians.



SPEED LIMITS:

Established a new default safe speed limit of 40 km/h along with a comprehensive educational campaign.

The speed limit was reduced to 40 km/h on most residential collector and local roadways in Edmonton. In addition, high pedestrian activity arterials like Whyte Avenue and Jasper Avenue were included in the reduction.

ROAD DESIGN AND ENGINEERING:

Extensive community traffic calming is integrated into the neighbourhood renewal programs that include features such as curb extensions, raised crosswalks, and raised intersections.



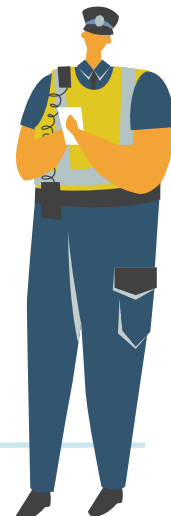
VISION ZERO STREET LABS:

18 community groups began planning their Vision Zero Street Lab, and 5 projects hit the street.



EDMONTON POLICE SERVICES:

Edmonton Police Service conducts in-person enforcement; this is important at locations across Edmonton which are not approved and signed enforcement sites. The City of Edmonton and the Edmonton Police Service (EPS) work together to provide education and enforce speed limits.

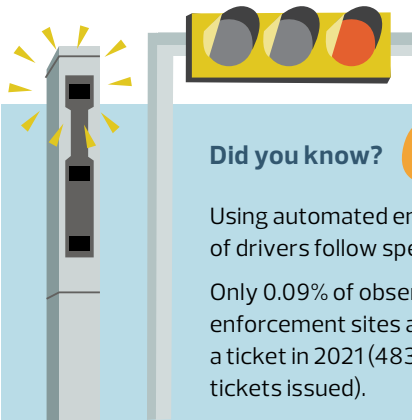
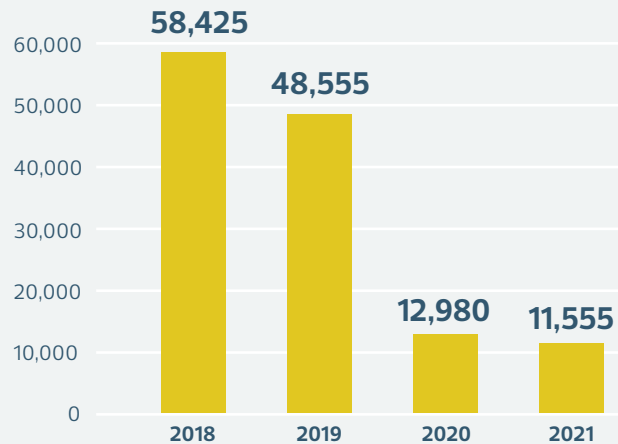


How Automated Enforcement Helps Change Behaviour

Automated traffic enforcement in Edmonton includes mobile speed enforcement and intersection safety devices.

The number of vehicles receiving multiple tickets per year have been decreasing since 2018. This shows that Edmontonians' driving behaviour is changing for the better and using tickets as a penalty is a strong deterrent to speeding.

Number of Vehicles Receiving Multiple Tickets Per Year by Mobile Speed Enforcement



Did you know?

Using automated enforcement data, we know that the majority of drivers follow speed limits in Edmonton.

Only 0.09% of observed vehicles travelling through mobile enforcement sites and intersection safety devices were issued a ticket in 2021 (483,472,868 vehicles monitored and 425,294 tickets issued).



MOBILE SPEED ENFORCEMENT SITE SELECTION

As per the new Alberta Automated Traffic Enforcement Technology Guideline, mobile speed enforcement is approved and used only at locations which are proven to be:

- Collision or speed prone
- Established playground zones
- Construction sites

To make sure the program achieves its safety goals and that it is not used for revenue generation, automated enforcement is strictly prohibited in the following areas:

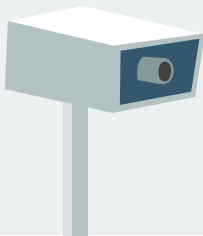
- Speed transition zones
- Residential roads with a speed limit of less than 50 km/h (apart from playground zones)

SAFETY BENEFITS OF MOBILE SPEED ENFORCEMENT

- Total crashes at mobile enforcement sites decreased 18% from pre-Vision Zero (2013–2015) to post-Vision Zero (2016–2019) averages, and an additional 20% between 2019 and 2021.
- Between 2019 and 2021, the percentage of drivers who received a ticket decreased by 63%. Similarly, the percentage of drivers who received a 21+ km/h ticket decreased by 63%.

SAFETY BENEFITS OF INTERSECTION SAFETY DEVICES

Unlike mobile speed enforcement, intersection safety devices can monitor traffic 24/7 at fixed and known locations. They can capture speed and red light running violations.



5% of crashes were caused by drivers running red lights in 2021.



6 in 100,000 of monitored vehicles received a red light running ticket in 2021. That is a

29% reduction from 2019.

On the speeding front, 60 in 100,000 of monitored vehicles received a speed violation ticket. That is a

33%

reduction from 2019.



As the number of violations decreased, so did the number of crashes. Crashes at intersection safety device locations decreased by

16%

between 2019 and 2021.

EXPLORE

A map with the locations of all automated sites can be viewed using the integrated safe mobility map, at edmonton.ca/VisionZero.



EXPLORE

A publicly-available [Automated Enforcement Dashboard](#) was implemented in 2020. It summarizes violations and crashes before and after Vision Zero was implemented in Edmonton.



SAFETY AT SCHOOLS

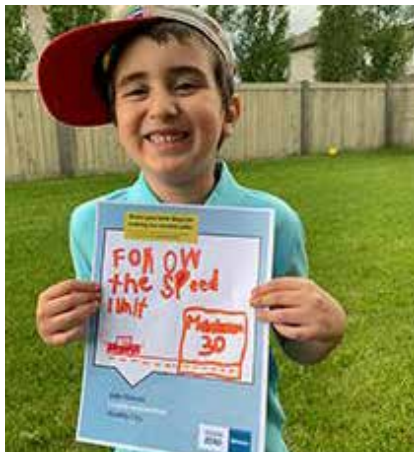
Safety by Design

To work together to address school traffic safety issues, the City established a School Traffic Safety Committee in 2016. The Committee includes members from the City of Edmonton, school boards, Edmonton Police Service, Alberta Motor Association, and many other external and internal partners.

WHAT? Traffic safety is reviewed at schools with the support of the School Traffic Safety Committee. When potential problems are identified, engineers determine specific countermeasures that are tailored to the concerns at each school.

In 2021, 49 schools were upgraded to help increase safety and livability.

WHY? When neighbourhood streets are safe, parents, guardians, children, and caregivers are more likely to walk and bike to school, use playgrounds, and enjoy local parks. This supports healthy and vibrant communities.



Get Involved with the Vision Zero School Kit

The [Vision Zero School Kit](#) launched in 2021. Teachers, students, and community members can use the Vision Zero School Kit to build awareness of street safety around schools and create new experiences and conversations around street safety with students.

Using the kit, schools may request roadway centreline and lawn signs and take part in activities for students and teachers to work together to create a vibrant crosswalk and co-create signage.



EXPLORE

Visit edmonton.ca/VisionZero to look up which schools have been upgraded from 2015 to 2021.



INVESTING IN SAFE MOBILITY

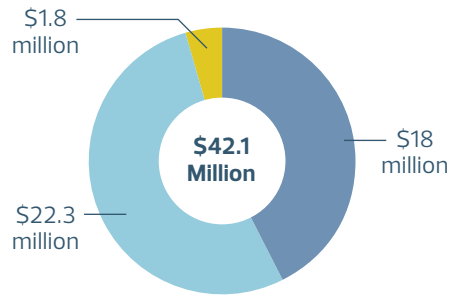
Funds collected through automated traffic enforcement are deposited into the Traffic Safety Automated Enforcement Reserve and do not go into general City revenues.

City Policy C759B dedicates this Reserve to be used for traffic safety initiatives, such as Safe Crossings upgrades, road design improvements, and public education campaigns.

Through the Reserve, funds are reinvested back into safe mobility programs to help reach Vision Zero.

2021 Traffic Safety Funding

- City of Edmonton Vision Zero Program
- Edmonton Police Service
- Community Facility Partner Capital Grant Program



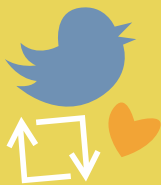
WHAT'S NEXT FOR VISION ZERO IN EDMONTON?

The City will continue to bring the Safe Mobility Strategy to life, this includes:

- Conducting proactive safety reviews of communities that are high crash locations, experiencing inequity, and are not in the queue for neighbourhood renewal.
- Expanding the Vision Zero Street Labs program to more neighbourhoods with unique and dense locations.
- Supporting schools through the Vision Zero School Kit program with vibrant crosswalks and classroom designed safe speeds signage.



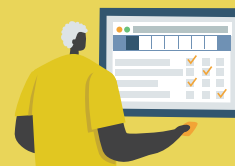
GET INVOLVED WITH VISION ZERO



Follow @CityofEdmonton on Twitter, Facebook, and/or Instagram to help us share traffic safety messages on social media



Talk to your friends, neighbours and loved ones about how you can make Edmonton's streets safer and more livable



Visit edmonton.ca/VisionZero to learn more and get involved!