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Item No. 13.1.2
Transportation Standing Committee
April 25, 2024

TO: Chair and Members of the Transportation Standing Committee

SUBMITTED BY: -Original Signed-
Cathie O'Toole, Chief Administrative Officer

DATE: March 14, 2024

SUBJECT: Road Safety Strategy: The Way Forward

ORIGIN

Item 6.1 of the February 14 & 15, 2023 Budget Committee:

Proposed 2023/24 Public Works Budget and Business Plan

“Road Safety Plan: Traffic Management will develop the next iteration of the Road Safety Plan with a continued focus of reducing fatal and injury collisions.”

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter (HRM Charter), Part XII, subsection 318(2), “In so far as is consistent with their use by the public, the Council has full control over the streets in the Municipality.”

Section 4(g) of the Terms of Reference for the Transportation Standing Committee provides that the duties and responsibilities of the Committee include “providing input and review of road and pedestrian safety”.

RECOMMENDATION

It is recommended that the Transportation Standing Committee recommend that Regional Council:

1. Adopt the Road Safety Strategy 2024, included in Attachment 1, and endorse the vision and goal identified.
2. Direct staff to provide annual reports to the Transportation Standing Committee regarding the actions of the Road Safety Program and the Road Safety Key Performance Indicators (KPIs) identified in the attached Road Safety Strategy.

BACKGROUND

The Strategic Road Safety Framework, adopted by Regional Council in July 2018, was Halifax Regional Municipality’s initial framework aiming to reduce fatalities and injuries on HRM roadways. The Framework was based on a Towards Zero approach, to reduce transportation fatalities and injuries to zero by the year 2038. The Framework also set a short-term goal of a 20% reduction in fatal and injury collisions by the end of 2023. The 2018 Framework is summarized in the [Review of the Strategic Road Safety Framework \(2018-2023\)](#), submitted to the Transportation Standing Committee in December of 2023.

Over the course of the Framework, the rate of fatal and injury collisions per 100,000 residents declined 15% from the baseline (average of 2018 and 2019). The rate of fatal and injury collisions from the 2018/2019 baseline to 2023 is shown in **Figure 1**.

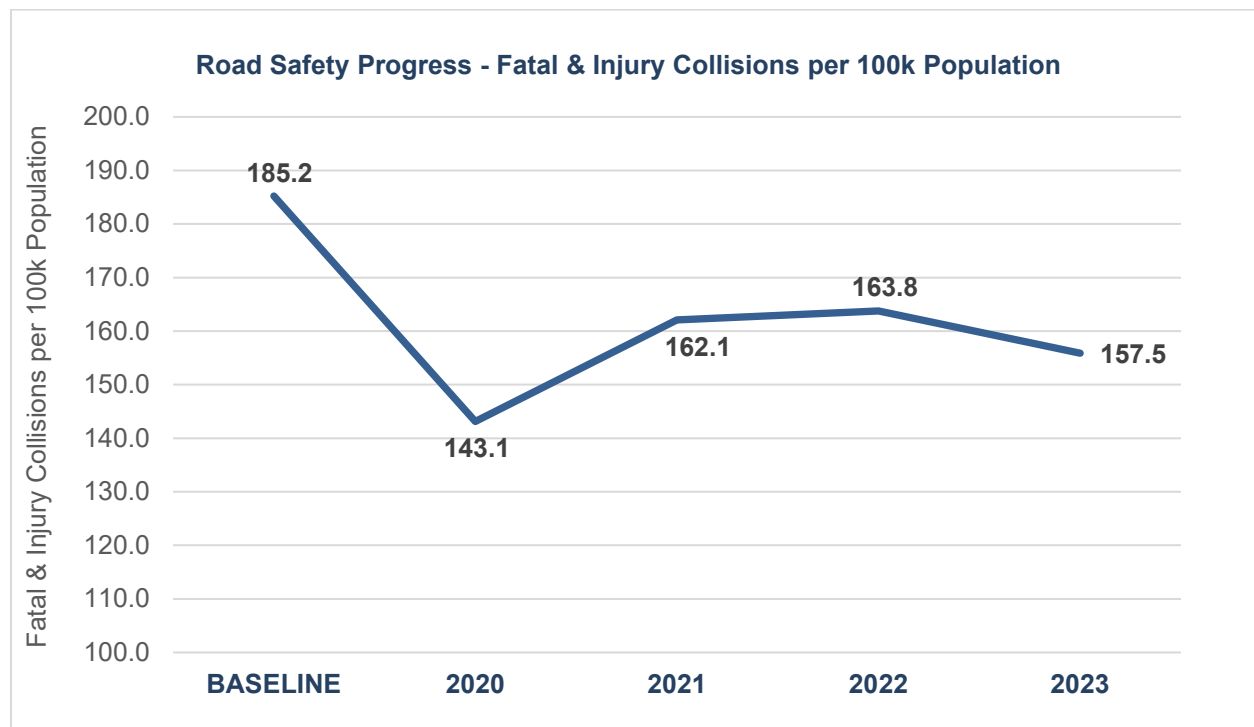


Figure 1: Rate of fatal and injury collisions per 100,000 residents, Baseline (2018/2019) to 2023.
**Based on closed collision files received from Halifax Regional Police and Royal Canadian Mounted Police as of April 17, 2024. Future reports may vary.*

The downward trend in fatal and injury collisions observed in HRM since 2018 is consistent with the overall national trend and trends from other major Canadian cities. The sharp decline in collision rates during the period of the COVID-19 lockdowns in 2020, and subsequent rebound in 2021 following the end of the pandemic, is also consistent with the overall national experience and that of other major Canadian cities. The exact comparison of collision rates is challenging due to variable factors among different cities including injury reporting thresholds, proportion of municipally vs provincially owned roads and collision breakdown, and greater metropolitan area population.

With the five-year Framework concluding at the end of 2023, a new Road Safety Strategy (The Strategy) has been developed. The Strategy builds on the experience gained from the implementation of the Strategic Road Safety Framework, tailoring the approach to capitalize on previous successes as well as further develop areas of weakness. Current best practices for road safety programs were reviewed and incorporated into the approach. The Strategy was prepared by Staff to align with Regional Council’s priorities and values, which will continue to be front of mind during the implementation of The Strategy.

DISCUSSION

The Road Safety Strategy 2024 is a new, strategic guide for the Road Safety Program in HRM. Unlike the 2018 Strategic Road Safety Framework, the Road Safety Strategy does not include a predetermined end date and will instead act as a long-term guiding document. Annual road safety reports will be delivered with the intent to provide regular, up-to-date action plans and statistics. This approach will enable the Road Safety Program to adapt to new technologies and prioritize measures based on evidence while following the elements of The Strategy.

The Road Safety Strategy states a vision and goal for the Road Safety Program as follows:

Vision: To achieve zero fatalities and serious injuries for all road users in the Halifax Regional Municipality by 2038.

Goal: Maintain a downward trend in the rate of fatal and serious injury collisions per 100,000 residents.

The Strategy builds on the 2018 Framework, evolving from a stated “Towards Zero” vision to “Vision Zero”, incorporating the Safe System Approach. Vision Zero is an internationally recognized road safety concept, asserting that fatalities and serious injuries on roads are preventable through an integrated, multi-disciplinary approach. The Safe System Approach underlies the Vision Zero philosophy. Using this approach, the road system is designed to minimize the chances of road users making mistakes and to limit the severity of human consequences (serious harm or fatalities) when mistakes occur. Achieving the vision of zero fatalities and serious injuries requires a shared responsibility and culture of road safety among all levels of government, public and private industry, and road users of every type. However, the municipality can take a leading role through adopting Vision Zero and using a Safe System Approach in its road safety work.

It is important to note that The Strategy does not contain specific actions for the work of the Road Safety Program. The Strategy is developed to serve as a foundational guiding document that prescribes approaches and principles that should be reflected in program activities. Specific actions to be implemented by the Road Safety Program will be presented in annual road safety reports, business plans, and capital programs.

The outline for implementation within The Strategy identifies a multi-disciplinary team that will support the Road Safety Program and its Safe System Approach. Program activities will include engineering countermeasures and programs; reports and evaluations; in-depth safety reviews; and road safety improvements at strategically prioritized locations. Priority locations will be identified within multi-year action plans which will be presented to Council, incorporating effective improvements into capital budget planning.

The Strategy identifies four priority areas for the Road Safety Program:

1. Intersections
2. Vulnerable road users
3. Safe schools
4. Data management

As data quality and analytical capabilities are improved, the development of collision rates and a high-injury network can be used to guide the prioritization of road safety projects under the remaining three areas. Program plans are expected to include actions and projects that benefit one or more of the priority areas. Examples that will be presented to Council for consideration include the Top 10 Intersection Action Plan and Neighborhood Action Plans.

Road safety performance indicators are identified in the Strategy and will be updated and reported within the annual road safety reports. These indicators have been selected to track the progress of various aspects of the Road Safety Program. Indicators additional to those identified in the Strategy may be added to annual

reports over time, as data sources improve. Annual reporting of indicators will provide the Road Safety Program and Regional Council with the information needed to evaluate the effectiveness of the current measures.

Next Steps as included in the Road Safety Strategy

Highlights of initiatives as outlined in the new Road Safety Strategy (attached):

1. Action plan for top 10 intersections - May 2024
2. Expansion of high-visibility crosswalks - 2024
3. Implementation of Traffic Calming program – Ongoing (while undertaking an emergency services review of Administrative Order 15 as authorized by Regional Council in 2024/25 business plan)
4. Safe school streets and active school travel programs - 2025
5. Continued expansion of existing road safety infrastructure (crosswalks, accessible pedestrian signals, etc.) - Ongoing
6. Road safety dashboard updates - 2024
7. Data management upgrades – 2024/2025
8. Development of high injury network screening - 2025

FINANCIAL IMPLICATIONS

There are no immediate financial implications associated with this report. Additional resources will be identified in future capital and operating budgets.

Budget requirements associated with the implementation of the Road Safety Strategy will vary depending on the specific actions identified within annual road safety reports and multi-year priority plans. It is anticipated that staff will be moving forward with a recommendation to Council for additional staff resources to support improved software and data analysis tools. Recognizing that education, engagement, and enforcement are critical components to any road safety program, Council could also consider additional resources to support increased communication and traffic enforcement.

RISK CONSIDERATION

A risk assessment was completed. When analyzed, the risks were evaluated and prioritized. Risk Considerations are as follows:

- Health & Safety
- Infrastructure
- Public Perception

The recommendation outlined in this report is intended to mitigate all risk considerations.

The risk of not proceeding with the adoption of the Road Safety Strategy could result in a high potential for increase of road related fatalities and severe injuries if road safety is not prioritized by Regional Council.

COMMUNITY ENGAGEMENT

The Road Safety External Stakeholder Committee (RSESC) was formed in 2023 to provide a formalized channel through which road safety advocacy groups can provide suggestions and express concerns. An overview of the Road Safety Strategy was provided to the RSESC for review and comment, and feedback was considered for inclusion within the Strategy. The RSESC will continue to be engaged at least twice per year to provide ongoing feedback to the Road Safety Program.

With the adoption of the Road Safety Strategy, the road safety team will coordinate with Corporate Communications to gather public feedback in the form of regular surveys, to understand public perception of road safety and to gather information gauging the desires and concerns of road users. Survey results will be provided in future annual reports.

ENVIRONMENTAL IMPLICATIONS

No environmental implications were identified.

ALTERNATIVES

1. The Transportation Standing Committee could choose to not recommend adoption of the proposed Road Safety Strategy.
2. The Transportation Standing Committee could choose to propose amendments to the proposed Road Safety Strategy.

ATTACHMENTS

Attachment 1 - Road Safety Strategy

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

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2024

Halifax Regional Municipality Road Safety Strategy



Dedication

This Strategy is dedicated to every person who has lost their life or has encountered a life-altering event while traveling on roads within our municipality, and to all of those who have lost friends, neighbours and loved ones.

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Executive Summary

The Road Safety Strategy 2024 is the second guiding document produced for the Halifax Regional Municipality's Road Safety Program, succeeding the [Strategic Road Safety Framework \(2018\)](#).

This Strategy adopts the principle of Vision Zero and the Safe System Approach to road safety. At the heart of these concepts is the idea that no loss of life or serious injury on our roads will be considered acceptable. Vision Zero, and the supporting Safe System Approach, have emerged as the standard for practice in Road Safety around the world, including in many Canadian cities and provinces.

In addition to adopting the Safe System Approach as a process for assessing and improving road safety, this Strategy identifies supporting approaches and key principles of the Road Safety Program in the Halifax Regional Municipality. These include engineering, education, engagement, enforcement, technology advancements, evidence-based decision making, equity and inclusion.

A commitment to annual planning, reporting, and identification of key performance indicators are outlined in this Strategy as the way forward for public accountability of the Road Safety Program.

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1. Introduction

1.1 ABOUT THIS STRATEGY

The Road Safety Strategy 2024 builds on the programs created under the [Strategic Road Safety Framework \(2018\)](#) and provides an updated outlook on road safety in the Halifax Regional Municipality (HRM).

This Strategy is designed to provide ongoing guidance for the Road Safety Program in the municipality and does not include a predetermined end date. Updates can and will be considered in response to adjustments to organizational priorities, policy, and business plans. Guidance and principles have been written to allow for the Road Safety Program to evolve along with new technology, and to be able to respond to emerging road safety concerns. Year-to-year plans, and analysis of road safety issues and progress will be presented on an annual basis within Road Safety Annual Reports.

Between 2018 and 2023, 75 fatal collisions have occurred on all public roadways in the municipality, including both municipal and provincial roadways. Over 4400 injury-related collisions also occurred within this time frame, many with life-changing results. Every serious collision involves some form of identifiable road safety risk factor. With this Strategy, the Road Safety Program will focus on identifying and addressing those road safety risks, using an evidence-based, integrated approach to work towards zero fatal and serious injury collisions.

1.2 ROAD SAFETY IN THE HALIFAX REGIONAL MUNICIPALITY

The municipal Road Safety Program was established in 2018 with the adoption of the Strategic Road Safety Framework (SRSF). The Road Safety Program is staffed by a small group of road safety program engineers within the Public Works business unit, with a dedicated road safety improvements budget. Road safety program engineers implement road safety related projects including traffic calming, in-service safety reviews, analysis of collision data and preparation of reports for the municipality's Transportation Standing Committee. This team also works with the municipality's Corporate Communications team, Halifax Regional Police, RCMP Halifax Regional Detachment and other road safety stakeholders to advocate for road safety at a system wide level.

The adoption of the SRSF in 2018 provided the municipality with an initial approach to road safety, based on a vision of Towards Zero with a goal of a 20 per cent reduction in fatal and injury collisions within five years (2018-2023). The SRSF identified seven emphasis areas: Intersection Related Collisions; Young Drivers; Pedestrian Collisions; Aggressive Driving; Distracted Driving; Impaired Driving; and Bicyclist Collisions. Key steps from the SRSF that contributed to the creation of the current Road Safety Program included the formation of a Road Safety Steering Committee, and the creation of a data analysis system for collision data, which included improved sharing of collision data from Halifax Regional Police and the RCMP Regional Halifax Detachment. Annual budgets for road safety improvements have steadily increased as the program has grown. This Road Safety Strategy will serve as the next strategic document to guide the continued evolution of the Road Safety Program.

The 2018 SRSF is summarized in the [Review of the Strategic Road Safety Framework \(2018-2023\)](#), submitted to the Transportation Standing Committee in December of 2023.

HIGHLIGHTS OF THE PROGRAM'S EVOLUTION SINCE THE 2018 ADOPTION OF THE STRATEGIC ROAD SAFETY FRAMEWORK INCLUDE:

2018

- Regional Council adopts the Strategic Road Safety Framework.

2019

- The Road Safety Steering Committee is formed.
- Internal collision database is released to staff.
- Ten in-service road safety reviews completed at the top locations of fatal and injury collisions.
- The neighbourhood speed limit reduction program begins.
- All basic marked crosswalk posts (approximately 300 locations) are outfitted with fluorescent yellow-green strips as a new standard.
- Implementation guidelines developed to standardize the use of Leading Pedestrian Intervals.
- Heads Up Halifax community grant program becomes available for pedestrian safety initiatives.
- Phase 1 of the South Park Street protected bike lanes opened, first of its kind in the Halifax region.

2020

- Speed display sign program initiated, with 10 signs installed in the first year.
- In-ground crosswalk signs piloted at five school crosswalk locations.
- Tactical Urbanism program developed, creating a quicker and easier process for municipal staff to make small, temporary changes to the roadway.
- Road Safety Dashboard published to the website.
- COVID-19 restrictions in effect, limiting travel on the roadways and significantly reducing collisions.
- Mobility Response Plan created to address the changing needs of road space during the COVID-19 pandemic. This included the implementation of 16km of slow streets in the Regional Centre, temporary expanded sidewalks and loading spaces and accelerated implementation of tactical protected bike lanes.
- First road safety video analytics project.

2021

- An additional \$1 million in funding added to the Traffic Calming program budget, totaling \$2.2 million.
- Photo Enforcement Feasibility Study completed.
- Update to the Municipal Design Guidelines released, incorporating a complete streets design philosophy.
- Participation in consultant research project to mitigate cyclist right turn hook conflicts.
- Updates to Accessible Pedestrian Signals across the region implemented at 76 signalized intersections.

2022

- Left-turn traffic calming pilot implemented.
- High-visibility crosswalk markings (zebra crosswalks) installed at select signalized intersections as a pilot program.
- First installation of speed cushions in the municipality.
- Bicycle traffic signals installed as part of the Wyse Road Bike Lane project, the first in Nova Scotia.
- New Traffic Calming Administrative Order adopted by Regional Council with increased emphasis on road safety.
- Funding for the Heads Up Halifax road safety education campaign removed from the municipal budget. Increased emphasis on internal resources for road safety communication.
- A 40 per cent reduction in fatal collisions is achieved in 2022 when compared to the baseline statistics.

2023

- Creation of the Road Safety External Stakeholder Committee.
- Completed a school zone traffic calming pilot to address locations ineligible for vertical deflections.
- Initiated a research project on the effectiveness of high visibility crosswalk markings at signalized intersections, with \$50,000 received in federal grant funding.
- Secured standing offer for road safety video analytics services to increase analytical capabilities.

2024

- Completion of Road Safety Strategy 2024.

2. Strategic Objectives

2.1 VISION AND GOAL



Vision: To achieve zero fatalities and serious injuries for all road users in the Halifax Regional Municipality by 2038.

Goal: Maintain a downward trend in the rate of fatal and serious injury collisions per 100,000 residents.

This Road Safety Strategy sets the long-term vision and current goal for the Road Safety Program in the Halifax Regional Municipality. The vision of this plan is based in the Vision Zero concept – an internationally recognized road safety strategy first introduced in Sweden in the 1990s and now adopted around the world. Vision Zero asserts that fatalities and serious injuries on our roads are preventable, and that it is our shared responsibility to work towards eliminating those collisions, using an integrated, multi-disciplinary approach.

The goal of this strategy – over the short and long term – is to achieve and maintain a consistent downward trend in fatal and serious injury collisions. The trend for serious injury and fatal collisions will be measured using a three-year rolling average to smooth out short-term fluctuations.





3. Approach

3.1 SAFE SYSTEM APPROACH

The Safe System is an approach that underlies the Vision Zero philosophy. This approach is built on the recognition that people make mistakes, and that the human body has a limited ability to tolerate large crash forces. Accepting these facts, a safe system must be designed to minimize the chances of road users making mistakes and to limit the severity of consequences when mistakes occur. The Safe System approach names the components of a road safety system – working individually and together– to reduce the occurrence of serious injuries and fatalities.

With this Strategy, the municipality's Road Safety Program adopts the Safe System Approach to understand and address road safety issues. The municipality uses the six components of a safe system named in the [Transportation Association of Canada's "Vision Zero and the Safe System Approach: A Primer for Canada"](#): Safe Road Users, Safe Roads, Safe Speeds, Safe Land Use Planning, Safe Vehicles, and Post-Crash Care.

The following table outlines the six components of a safe system, along with general examples of how each safe system component can be addressed to improve road safety within the municipality. Detailed actions for the Road Safety Program and the primary stakeholders will be identified in annual reports.

 <p>SAFE ROAD USERS</p>	<p>Human behaviours, including impaired, distracted, and aggressive driving, are contributors in roughly 40 per cent of fatal and serious injury collisions in the Halifax region. People use roads in the municipality in a variety of ways, including driving, walking, cycling, rolling, and using transit; and each of these activities comes with both rights and responsibilities for safe and equitable road use.</p> <p>Address these human behaviours that result in fatal and serious collisions. Educate and encourage all road users on their role in safety with knowledge of the laws and practices to safely travel within the right-of-way. Consider the needs and vulnerabilities of all road user groups.</p>
 <p>SAFE ROADS</p>	<p>Road infrastructure that is designed, operated and maintained to reduce the risk of collisions is a foundation for safer roads. Roads should be designed to enable easy navigation, minimizing the potential for user error.</p> <p>Improve existing roads through regular maintenance, pavement renewal, clear signage and targeted improvements. Complete streets principles should be prevalent through new and redesign opportunities, including incorporating protected bike lanes and separated pedestrian infrastructure. Perform safety reviews at intersections where collision data suggests improvements are needed, and test or adopt new and improved infrastructure when evidence suggests safety benefits.</p>
 <p>SAFE SPEEDS</p>	<p>Speed is a major contributor to both the likelihood and the severity of a collision, making safe speed a crucial component of the safe system.</p> <p>Proactively manage this risk by incorporating active and passive traffic calming measures through design to promote safer speeds. Post safe, appropriate speed limits for the road context. Enforce speed limits through regular and automated speed enforcement efforts.</p>
 <p>SAFE LAND USE PLANNING</p>	<p>Road users are safer and healthier in complete communities that offer a variety of affordable, convenient, and accessible travel choices for all residents. Siting of destinations for housing, education, work, recreation, shopping, services, and health care is critical.</p> <p>The municipal Integrated Mobility Plan addresses this element of the system, with a vision to create complete communities with connected, healthy, affordable, and sustainable travel options.</p>
 <p>SAFE VEHICLES</p>	<p>Well designed and maintained personal, commercial, and public service vehicles are safer for both their occupants and other users sharing the road. Newer vehicles can provide better crashworthiness for occupants and may feature assistive safety technologies for vulnerable road users. Technologies can adapt vehicles to prevent collisions and severity of outcomes.</p> <p>Enforce Provincial vehicle safety regulations to ensure that vehicles on our roads meet the minimum standards for safety and roadworthiness. As vehicle technology advances, consider how proven safety technologies should be adopted in municipally owned vehicles.</p>
 <p>POST-CRASH CARE</p>	<p>Deliver fast and effective emergency response when collisions do occur, to save lives and improve long-term recovery outcomes. This work is delivered by first responders including Emergency Health Services, fire, police, emergency departments and trauma teams within the municipality.</p> <p>Explore building relationships and sharing data with these groups to support their critical work.</p>

3.2 ENGINEERING

Engineering changes to the roadway, from quick, tactical projects to major street redesign, are a key part of a strategic approach to road safety.

The Road Safety team will continue to implement and support engineering projects and countermeasure programs that improve the safety of our infrastructure. Ongoing programs which include upgrades to existing crosswalks (such as rectangular rapid flashing beacons (RRFBs), RA-5 crosswalks with pedestrian-activated flashing beacons or half-signals) traffic signal adjustments, traffic calming infrastructure and school assessments, will continue to be an element of the work of the Road Safety Program. Major projects such as transportation plans, capital work and the design of new roads and communities, will be reviewed with a road safety lens to ensure that safety is prioritized. Many groups within the municipality design, review and oversee construction of engineering projects that can contribute to safety goals, and application of a road safety lens into the work of all engineering groups is important to the implementation of this Strategy.

While infrastructure improvements can be highly effective and are a critical component of road safety, engineering projects can be costly, and the safety improvements are typically localized to the project area. Other road safety components of education, engagement and enforcement are necessary to complement infrastructure improvements and achieve system-wide results.



3.3 EDUCATION

A supporting approach of the Road Safety Program is public education. Education can include messages that communicate and highlight upgrades and improvements within the road system; provide instructions on how to use new infrastructure; bring awareness to evidence-based road safety issues; remind road users about safe road use practices; and share stories to promote a culture of valuing road safety and vision zero.

Under this Strategy, members of the municipal Corporate Communications team, in collaboration with the Road Safety team, will continue to use a diverse selection of communication methods and channels, online and offline, to connect with road users in the municipality. Various platforms can be used to target a specific audience of road users, or key areas in the region where evidence points to higher volumes of incidents or suggests certain groups may be disproportionately involved in a certain type of behaviour or exposed to particular risk. Messages can be tailored to meet the diverse needs of the population, including those with varying literacy skills and cultural backgrounds. Themes and messages will be reviewed throughout the year to identify timely and pertinent messaging based on data informing collision trends and feedback gathered through any forms of public engagement.



The Road Safety team will consider opportunities to work with external partners to conduct road safety awareness campaigns. Community and advocacy groups, public and private agencies, and other levels of government can reach different audiences and bring focus to specific road safety issues. The Road Safety team is committed to exploring ways to collaborate with our partners to enhance messaging aligned with the approach and principles of this Strategy. The team recognizes the value in leveraging the efforts of external agencies and the importance of demonstrating a united focus on keeping our roads safe for all users.

While widely recognized as a key component for any road safety program, evidence shows that education alone plays a limited role in decreasing dangerous behaviours and reducing fatal and serious injuries. Educational messages are most effective when integrated with infrastructure improvements, community engagement and enforcement of dangerous driving behaviours. Coordination of these multi-disciplinary efforts will be factored into the creation of educational messages, to yield the greatest overall benefit.

3.4 ENGAGEMENT

Complementary to education efforts, the Road Safety Program will also seek feedback from the road-using community through culturally appropriate and inclusive engagement.

The Road Safety team will monitor public perception of road safety, using outreach tools including surveys and social media to ask pertinent questions and create space for discussion and feedback.

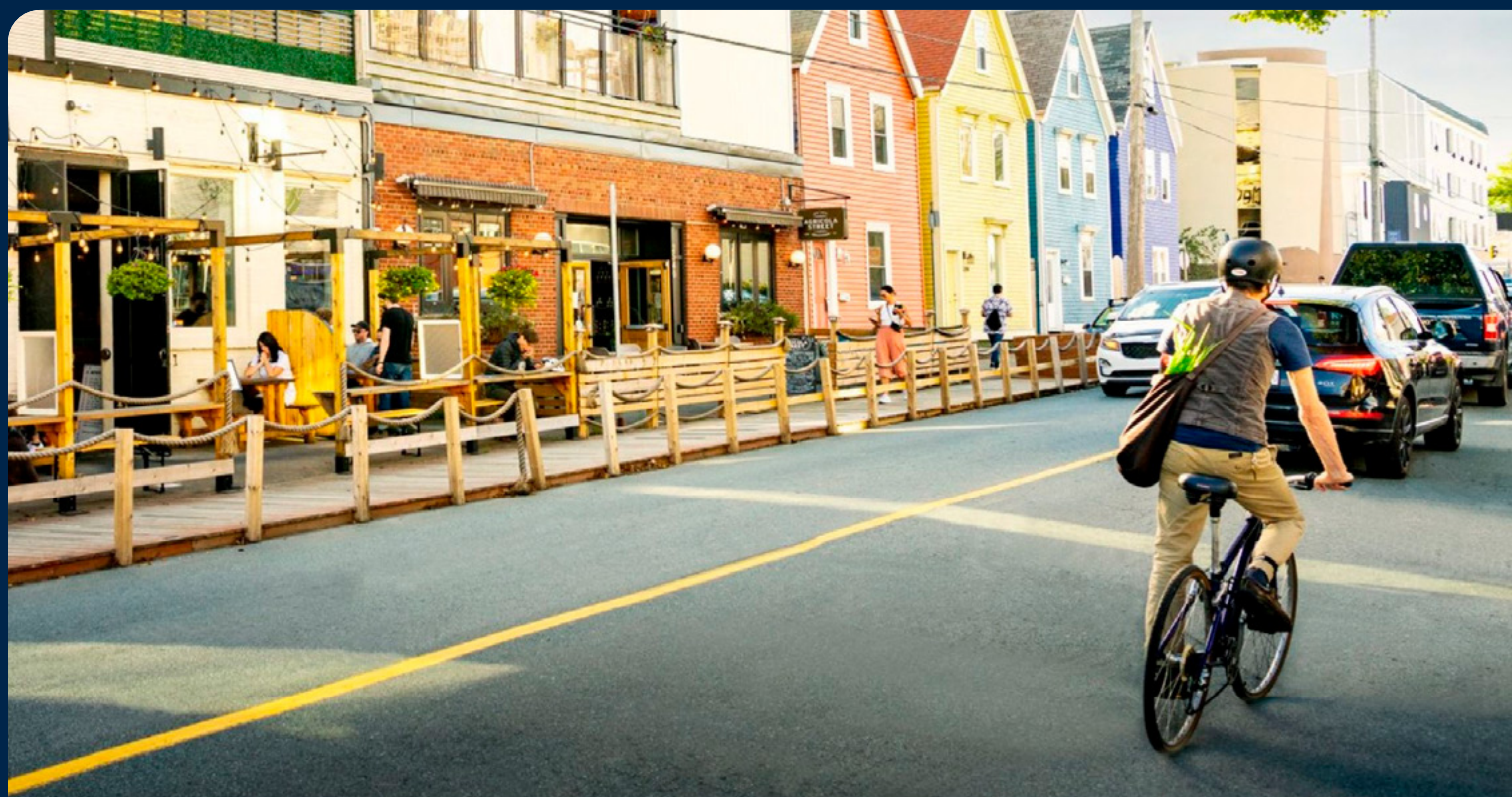
To effectively measure awareness and perception of safety, a survey will be developed and conducted in 2024 to gather a baseline for the public's overall perception of road safety in our municipality. Subsequent annual surveys will monitor any changes in perception of safety and awareness of road safety initiatives.

The Road Safety External Stakeholder Committee, formed in 2023, will serve as an avenue for discussion and feedback from key road safety advocates and stakeholders in the community. Membership will continue to be considered for any interested organizations.

3.5 ENFORCEMENT

Traffic enforcement is an instrumental component of road safety. Consistent, strategic enforcement addresses immediate danger by hindering individuals engaged in risky behaviours, while visible enforcement over time acts as a deterrent against those behaviours.

Halifax Regional Police and RCMP Regional Halifax Detachment – Partners in Policing – are jointly responsible for traffic enforcement in the Halifax Regional Municipality. The Road Safety Program relies on relationships with both agencies, which will continue to be prioritized under this Strategy. The Road Safety team will work with police partners to improve the sharing of critical data, and will provide support for targeted, strategic enforcement of high-risk driving behaviours including speeding, aggressive driving, distracted driving, and impaired driving.



Police partners will align their enforcement approach with the vision and goal of this Strategy, while the Road Safety team will support police partners with collision analysis data, infrastructure improvements and findings from public and stakeholder engagement. The municipality and police partners will explore collaborating on high-visibility enforcement campaigns, widely publicizing targeted enforcement activities through traditional and social media. This style of enforcement campaign emphasizes the deterrent effect by making road users aware of the high-risk behaviours which will be targeted by police.

Enforcement of some dangerous driving behaviours, particularly speeding, can be effectively managed by automated enforcement technology. Automated speed enforcement delivers fair and consistent enforcement and provides a strong ongoing deterrent against speeding where it is installed with proper signage and notification. At the time of the development of this Strategy, automated enforcement is not enabled by legislation in Nova Scotia, however a 2022 feasibility study lays out recommendations to proceed with an automated speed enforcement program once the necessary supports are implemented at the Provincial level.

3.6 EMERGING TECHNOLOGY ADVANCEMENTS

Technology in the field of road safety is constantly evolving, and the tools and approaches used by the Road Safety Program must be flexible to adapt to new developments. The Road Safety team will remain open to exploring opportunities with academic and private sector partners in this field.

New systems and software for identifying high-risk conditions, near-miss conflicts, and analytical tools will help the Road Safety Program identify the highest priority locations for intervention and select the most effective engineering countermeasures.



Meanwhile, vehicles are continually improved with more technological safety features, such as automatic braking and blind spot monitoring, which can add a layer of protection to the system. Vehicles that can operate with less driver input are being developed and will have an increased presence on our roadways over time. While vehicle design and regulation are beyond the scope of the municipality's Road Safety Program, it is recognized that improvements in vehicle safety features, including some features of self-driving vehicles, can contribute to a safe system. The Road Safety team will monitor advancements in vehicle technology, as it pertains to Road Safety and the Safe System in the Halifax region and adapt as necessary to take advantage of vehicle safety improvements, as well as mitigate risks and challenges that come along with new technology.

4. Principles

4.1 EVIDENCE-BASED DECISION MAKING

Road Safety Program decisions should be supported by the best available evidence. Evidence-based decision making is a value identified in the Municipal Strategic Priorities Plan 2021-25.

To prioritize the best possible decisions, a Road Safety Program requires both high-quality data and capable data analytics tools. For the Road Safety Program to have success with the vision and goal identified by this Strategy, progressive improvements to the quality of available data and data analytic capabilities must be prioritized.

The Road Safety Program has an established relationship with Halifax Regional Police and RCMP Regional Halifax Detachment to receive and interpret the collision data which has informed the program to this date. With this Strategy, the Road Safety Program will seek to continue the sharing of further collision details, as well as improve the quality and completeness of collision data received.

With the 2018 Strategic Road Safety Framework, the first iteration of a collision database was developed for staff use. The implementation of this Strategy will require the use of more powerful data analysis tools for staff to detect collision patterns, identify road safety issues and evaluate the effectiveness of road safety countermeasures.

4.2 EQUITY AND INCLUSION

Road Safety is an issue that can disproportionately affect low-income and marginalized communities, children and youth, older adults and persons with disabilities. Historically, marginalized neighbourhoods are often burdened with poor land-use planning, such as major roads cutting through neighbourhoods and a lack of pedestrian infrastructure.

While implementing the Road Safety Strategy, it is important that equity and inclusion are considered when deciding how and where projects are delivered. The Road Safety team will work with the municipal Office of Diversity & Inclusion/ANSAIO to incorporate equity considerations into project prioritization and implementation. The Road Safety Program will consult the municipality's Gender Based Analysis Plus (GBA+) Toolkit to aid in considering different lenses and identifying equitable outcomes. The incorporation of equity into a road safety program is still an evolving practice, and the approach that the Road Safety Program takes will mature over the life of this Strategy.



Barriers to meaningful communication including language, reflected representation, complexity of material, and access to technology, must be taken into consideration when creating and sharing education campaigns or engagement opportunities. The Road Safety team and the municipal Corporate Communications team will consider these barriers when creating material, in consultation with the Office of Diversity & Inclusion/ANSAIO when necessary to determine the most appropriate ways to reach all communities within the municipality.

This Strategy is intended to prevent fatalities and serious injuries for all road users, ranging from those travelling by foot or wheelchair, bicycle, scooter, human- and electric-powered personal transporters, motorcycles, and vehicles for personal, commercial, or public service use. Each mode varies in its degree of risk, vulnerability, rights, and responsibilities; and is connected to a unique perspective and experience of the road network. The experiences related to varying modes can intersect with other aspects of a person's identity, including age, gender, cultural background, and socioeconomic status, further increasing vulnerability for some road users. Other populations of road-users are at greater risk of causing harm. While the well-being of all road-users is the vision, there is need to prioritize vulnerable modes and users who experience a higher probability of fatalities and serious injuries.



The Integrated Mobility Plan (2017) is an important companion to this Strategy for creating equitable mobility in the Halifax Regional Municipality. The vision of the Integrated Mobility Plan (IMP) is to create a transportation system that is connected, healthy, affordable, and sustainable. By creating communities that have less reliance on private vehicles, better access to transit, safe active travel for all ages and abilities and lower emissions, the IMP plays a vital role in creating safer and more equitable transportation systems.

Accessibility is an important consideration in all new road projects and road safety improvements. The 2021 Municipal Design Guidelines include Accessibility as a design philosophy, committing to implementing regulations associated with the Nova Scotia Accessibility Act (2017). The municipality's Accessibility Strategy, within the Diversity & Inclusion Framework, aims to make the municipality accessible by 2030 with 30 actions items, including actions for public transit and transportation infrastructure. When considering new road safety projects and countermeasures under this Strategy, the Road Safety team will consult with accessibility stakeholders to understand the design requirements necessary to accommodate all road users.

5. Implementation

5.1 SAFE SYSTEM PARTNERS

The implementation of the Road Safety Program under this Strategy will bring together a multi-disciplinary team with a Safe System Approach to improve the safety performance of roads in the municipality. The Road Safety team will seek to partner and strengthen relationships with primary stakeholders that can support each component of our Safe System.

SAFE SYSTEM COMPONENT	PRIMARY STAKEHOLDERS	
SAFE ROAD USERS	Municipal Corporate Communications Halifax Regional Police RCMP Regional Halifax Detachment	Province of Nova Scotia Halifax Transit Nova Scotia Health – Public Health
SAFE ROADS	Municipal Traffic Management Municipal Design & Construction Services Municipal Infrastructure Maintenance & Operations	Municipal Project Planning & Asset Management Province of Nova Scotia
SAFE SPEEDS	Municipal Traffic Management Municipal Design & Construction Services Municipal Project Planning & Asset Management	Halifax Regional Police RCMP Regional Halifax Detachment Province of Nova Scotia
SAFE LAND USE PLANNING	Municipal Transportation Planning Municipal Infrastructure Planning	Province of Nova Scotia
SAFE VEHICLES	Halifax Regional Police RCMP Regional Halifax Detachment Province of Nova Scotia	Municipal Corporate Fleet Halifax Transit Fleet
POST-CRASH CARE	Nova Scotia Health – Emergency Care Emergency Health Services Halifax Regional Police	RCMP Regional Halifax Detachment Halifax Regional Fire & Emergency

5.2 PROGRAM ACTIVITIES

Regular program activities for the Road Safety team will include implementing, supporting and monitoring new and existing municipal initiatives relating to road safety concerns.

Engineering countermeasures and ongoing road safety programs that align with the safe system approach will continue to be the focus of the Road Safety Program. Existing programs may change in scope based on evaluated effectiveness, the need to shift focus areas, or Council direction.

The Road Safety team will deliver various reports through the Transportation Standing Committee and Regional Council. The content and frequency of these reports will be driven by program deliverables, as identified in annual budget reports, and by request of Committees and Council. At a minimum, annual reports will be delivered each year.

Based on the best available data, the Road Safety team will identify priority locations for Road Safety improvements, perform in-service safety reviews of each location, and produce multi-year action plans for improving the safety performance of those targeted locations. This structured approach will permit the Road Safety team to perform a complete, focused analysis of each location and allocate budgets to effectively coordinate planning and implementation for the recommended improvements.

Priority locations for road safety improvements were previously identified in the [2023 Road Safety Annual Report](#). The Road Safety team identified 10 high-priority intersections, based on fatal and injury collision frequency. These 10 locations will be a focus of the Road Safety Program over the next five years (2024 – 2029). As these 10 locations are being addressed, staff will be collecting and analyzing data to identify any new locations requiring priority focus for future programs. Identification of future priority locations may consider additional data and variables, including collision rates, vulnerable road user collisions and equity for underserved communities.

5.3 PRIORITY AREAS

The Road Safety Program will focus resources based on evidence as well as Council and community priorities, and the areas of focus may shift over the life of this Strategy. The Road Safety Program intends to focus efforts on the following four focus areas.

5.3.1 Intersections

Collision data between 2018 and 2023 demonstrates that 28 per cent of fatal collisions, and 50 per cent of injury collisions, for all road users, occurred at intersections. Intersections are a complex area for all road users to navigate, with the potential for conflicts to occur. Engineering improvements to intersections are important for safe roads, as a Safe System component. The focus will be on an iterative approach to improving intersections by prioritizing the worst intersections for capital improvements. Once those are complete, the next priority locations will be identified based on current data, as well as an equity lens, and a new capital plan will be developed. Improvements could include large projects like protected turning movements, photo radar, and new signals and street lighting, as well as softer approaches as left turn traffic calming and no right turn on red signage.





5.3.2 Vulnerable Road Users

Collisions involving people walking, rolling and cycling, are more likely to result in injuries or fatalities compared to collisions involving motor vehicles alone. These vulnerable road users make up four per cent of overall collisions that occurred between 2018 and 2023, however they were involved in 22 per cent of fatal and injury collisions. Vulnerable road users represent a diverse group of people with intersecting identities. The Road Safety Strategy will focus on evidence-based opportunities to improve road safety for vulnerable road users. Criteria for new marked crosswalks were reviewed in 2022, with safety identified as a guiding principle along with delay, equity, expectancy, consistency, connectivity, and pragmatism. Typical improvements for vulnerable road users will include new sidewalks, trails, protected bike lanes, lighting, and new and enhanced crosswalks.

5.3.3 Safe Schools

School zone safety has been identified as a priority by Council and the community. There are current and future programs aimed to create safe streets around schools in the municipality. As children have less experience as road users, it is critical to create a safe environment while travelling to and from school. Safe school zones also create conditions for children to actively travel to school, gaining valuable physical activity and creating healthy active travel habits from an early age. Safe school streets as well as the Active School Transportation Program will work to enhance safety and education in school zones.

5.3.4 Data Management

High quality data management and analysis is necessary to identify problems, make good decisions and evaluate results. Effective sharing of data helps the Road Safety team communicate with Council and the public and creates greater transparency into road safety issues. Improvement of data quality and procurement of more advanced data analysis tools are necessary to support the Road Safety Team in implementing this Strategy. As data quality and analytical capability are furthered, high-injury networks and collision rates can be used to guide the prioritization of road safety projects.

5.4 ANNUAL REPORTS

Action plans and accounting of work for the Road Safety Program under this Strategy will be documented in Road Safety annual reports. The annual reports will:

- provide an overview of the collision data;
- outline the road safety projects implemented in the previous fiscal year;
- present the plan for road safety projects to be completed in the current fiscal year; and,
- report on road safety key performance indicators.

5.5 KEY PERFORMANCE INDICATORS

To evaluate the year-over-year effectiveness of the Road Safety Program, annual reports will present road safety key performance indicators. Performance indicators for the Road Safety Strategy are selected based upon the data that is most accurate and readily available, to ensure that annual reporting is consistent and successful. While the indicators presented in this Strategy represent an initial commitment to reporting, additional indicators may be added over the years, as the availability of data and analysis tools evolves.

1. Number of fatal collisions, serious injury collisions, and fatal and serious injury collisions per capita
2. Number of fatal and serious injury collisions by mode and jurisdiction
3. Number of fatalities and serious injuries
4. Number of fatalities and all injuries
5. Percentage of fatal and serious injury collisions that are within identified vulnerable communities
6. Percentage of vehicles complying with the speed limit on a sample of major collector and arterial roadways
7. Median change in 85th percentile speed on traffic calmed streets by sub-region
8. User perception of safety within the municipality and individual polling districts
9. Number of people exposed to educational, online materials
10. Number of summary offense tickets issued by Halifax Regional Police and RCMP Regional Halifax Detachment



6. Conclusion

This Road Safety Strategy provides an essential foundation for the Halifax Regional Municipality's Road Safety Program. The Strategy will serve as a constant point of reference for our shared goals and vision for safe roads in the municipality; committing to a Safe System Approach; integrating engineering, education, engagement, enforcement, and emerging technology into road safety work; and identifying core principles of evidence-based decision making, equity and inclusion.

From the people who design and build the roads; to those who educate and engage with others; to traffic enforcement and first responders; and to every person who uses our roads; this Strategy will help us all build and share in a culture of road safety in the Halifax Regional Municipality.

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