Improving Transportation Safety: Calgary Safer Mobility Plan 2013-2017 Case Study

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THE CITY OF
CALGARY
TRANSPORTATION

ABSTRACT

On average, 94 collisions occur in Calgary each day. The City of Calgary Transportation Department is committed to continuously improving road safety for all transportation network users, and has developed a comprehensive transportation safety management system in support of municipal plans, *Alberta's Traffic Safety Plan, Canada's Road Safety Strategy 2015,* and in line with the *Global Decade of Action* as put forward by the *United Nations* and the *World Health Organization.*

The Calgary Safer Mobility Plan (SMP) is intended to act as the first step towards a formal, Calgary-specific and evidence driven transportation safety management process. The SMP incorporates safety activities currently in place, builds upon them, and introduces new initiatives based on a number of guiding principles, including the following:

- Multi-modal Safer Systems approach
- Multi-disciplinary partnerships
- Evidence-based and data-driven focus on best practices
- Promoting the 5 Es (engineering, enforcement, education, evaluation and engagement).

The SMP introduces strategies and programs to achieve proposed targets. Progress in achieving those targets will be tracked annually in a *Safer Mobility Annual Report Card and Action Plan*. The final evaluation will identify the most effective actions, helping to direct limited resources towards strategies and programs that are most successful in reducing fatalities and injuries.

The SMP aims to achieve an overall reduction of 10% in fatality and injury collisions within five years, ultimately striving towards zero casualties on Calgary's transportation network. The targets are achievable with the help of an accountable, evidence-based, and innovative transportation safety management process.

INTRODUCTION

According to the *Canadian Guide to In-Service Road Safety Reviews* [1], public agencies are responsible for ensuring their transportation network operates with a reasonable level of safety. In recent years, the attention given to transportation safety has been shifting from a reactive approach, to a proactive style of management and emphasis on evidence-based approaches. To demonstrate commitment to transportation safety and its continuous improvement, road agencies have been developing their own formal transportation safety management processes and safety plans.

The City of Calgary (The City) has embarked to develop its own transportation safety plan. This report is an illustrational case study which presents the approaches used to develop the Calgary Safer Mobility Plan (SMP). The background and framework are discussed in this section, while following sections describe:

- Long term vision and mission;
- The current state of transportation safety in Calgary;
- Five-year targets;
- Safer mobility strategies;
- Framework for partnerships and collaboration;
- Monitoring, evaluation and reporting, and
- Conclusions.

Background and Context

Alignment with the Global Decade of Action

The interest in and importance of road safety has gained momentum globally with the recent release of the *Global Plan for the Decade of Action for Road Safety 2011-2020* [2]. The plan was developed by the World Health Organization (WHO) in partnership with UN Road Safety Collaboration, which includes governments, international agencies, civil society organizations and private companies from more than 100 countries including Canada. The plan provides an overall framework for activities and seeks to save five million lives over the next 10 years.

Alignment with Transport Canada's Road Safety Strategy

In 2001, Transport Canada developed the *Road Safety Vision 2010* [3], with the goal of creating the safest roads in the world. The document played a pivotal role in raising the profile of traffic safety. Despite increases in the number of road users, fatalities decreased 10 percent while serious injuries declined by 16 percent under this plan.

Transport Canada recently released *Road Safety Strategy 2015* [4], which retains the long term vision of achieving the safest roads in the world, but has a more immediate goal of continuing to reduce fatalities and serious injuries caused by collisions on Canada's roadways. The 2015 strategy is more flexible and holistic in nature than its predecessor.

Alignment with the Alberta Traffic Safety Plan

In 2006, the Province of Alberta developed the *Alberta Traffic Safety Plan* [5], with the goal of making Alberta's roads the safest in Canada. The Province had established a target to reduce the average number of road users killed or seriously injured by 30% during 2008-2010 relative to average figures during 1996-2001.

Ambitious targets were set within the specific focus areas of: seatbelt use, impaired driving, speeding, intersections, rural roadways, commercial vehicles, young drivers, vulnerable road users, high risk drivers and aging drivers. Progress towards these targets is found in eight strategies, including: leadership and coordination, communication and advocacy, aboriginal traffic safety, education, enforcement, legislation, research and engineering.

Alignment with Calgary Municipal Plans

The Safer Mobility Plan (SMP) identifies strategies to improve transportation safety on Calgary's transportation network for all modes of travel over the next five years. It supports the *imagineCALGARY* [6] target to decrease the fatal and injury collision rate by 50 percent before 2036. The SMP supports the Calgary Transportation Plan (CTP) [7] goal to promote safety for all transportation system users and provide transportation services in a safe, effective, affordable and efficient manner.

Calgary Safer Mobility Plan

The SMP is intended to act as the first step towards a formal, Calgary-specific and evidence-driven transportation safety management process. It is to provide guidance on implementation of strategies that promote safer mobility and act as a guiding document for The City's decision making process.

The SMP has a five year time frame in line with provincial and national plans. This time frame was chosen as it provides sufficient time for the accomplishment of goals, while maintaining momentum.

The SMP strives to formalize safety activities currently in place within the Transportation Department, build upon them and introduce new initiatives based on best practices. It promotes coordination among the 5 Es of transportation safety, as follows:

- **Engineer** according to best practices to reduce severity and prevent collisions
- **Educate** users to make the best choices and understand dangers of their actions
- **Enforce** to discourage dangerous behaviours and reduce violations
- **Evaluate** to assess effectiveness and help to guide future investment
- **Engage** stakeholders in the safety management process

Guiding Principles

Based on transportation safety research and best practices from other jurisdictions, the following guiding principles have been used in the development of the Calgary SMP:

- The plan should be founded on solid research and best practices, but specific to The City of Calgary.
- The plan should be based on a Safer Systems approach (a holistic view of the road transportation system and the interactions among its components including: safe road and roadside, safe speeds, safe road users and safe vehicles).
- The plan should include internal and external partnerships with agencies and stakeholders who have a role in influencing the safe functioning of the transportation system.
- The plan should be evidence-based (rigorous network screening analysis) and data-driven (up-to-date and accurate collision database).
- The plan should be multi-disciplined (planners, engineers, enforcement officers, educators) and consider all modes (pedestrian, bicycle, transit, vehicle and commercial vehicle) and all users (pedestrians, cyclists, transit riders, drivers, commercial operators).
- The plan should set the stage for the development of action plans for each strategy that is based on the 5 Es (engineering, enforcement, education, evaluation and engagement), as appropriate.
- The plan should have a five year time frame with measurable targets, and should have annual action plans developed in response to annual collision data.
- The plan should be sustainable.

Objectives

The specific objectives of the SMP include:

- Defining long term vision and mission;
- Identifying focus areas for safer mobility;
- Selecting SMP targets for each focus area;
- Formalizing current practices and new initiatives by developing strategies;
- Setting the stage for implementation and evaluation; and
- Developing a framework and communication plan for collaboration with internal and external partners.

Plan Framework

The objectives of the SMP required a systematic, data-driven approach. The framework used is outlined in Figure 1. The objectives provide the foundation for the plan and a basis for what the plan is to accomplish within the established time frame of five years.

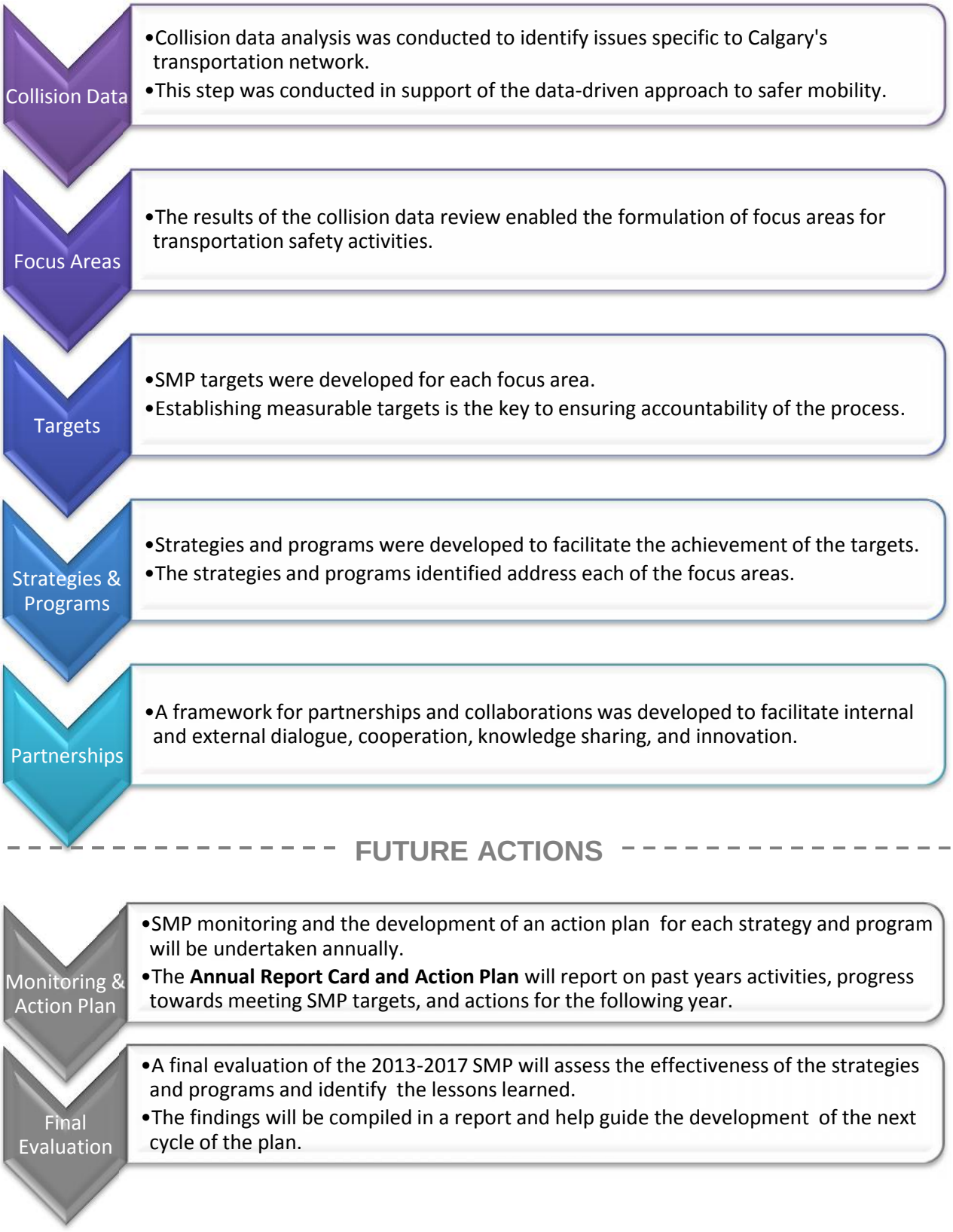


Figure 1: SMP Framework

LONG TERM VISION AND MISSION

In alignment with the *Global Plan for the Decade of Action for Road Safety* [2], Transport Canada's *Road Safety Strategy 2015* [4], and Alberta Transportation's Office of Traffic Safety, the SMP for The City of Calgary includes a lofty vision and mission that inspires action. In line with existing policies, and the direction provided provincially, federally and globally, the SMP vision, mission, and values are as follows:

Vision:
Safe Mobility for all Users

Mission:
Striving for zero... pursuing transportation completely free of fatalities and injuries.

Values:

- Safer Systems Approach
    - Safer infrastructure, safer users, safer speeds, safer vehicles
- Continuous improvement
    - Short term target towards the long term goal
- Evidence-based strategies
    - Engineering, Education, Enforcement, Evaluation, Engagement
- Collaboration
    - Internal, external, community
- Best Practices
    - Research, technology, innovation

CURRENT STATE OF TRANSPORTATION SAFETY IN CALGARY

Collisions occur when a vehicle collides with another vehicle, road user, animal or object. The current state of transportation safety in Calgary may be defined and quantified with the help of collision data. As a result, collision data is essential to the progress of improving safety. Collision data analysis reveals changes in trends over time, collision prone locations and other contributing factors, while enabling data-driven and evidence-based decision making.

The collision data set discussed in this chapter includes all collisions within the city reported to the police (excluding collisions in parking lots and on private property). Current legislation in Alberta states that all collisions resulting in death, injury, or property damage over $2,000 are reportable. This limit was increased from $1,000 on January 1, 2011, which may have contributed to the decline in reported collision numbers.

Societal Cost of Collisions

Traffic collisions result in significant cost to society. The 2006-2010 average annual societal collision cost ranges between $871 million and $1.68 billion, based on low and high estimates. These estimates were developed by Alberta Transportation based on Transport Canada's *Social Cost of Collisions Model* [8] for collisions reported by Calgary Police Service.

To reduce these costs, the development of a transportation safety management process and the identification of safety strategies will help with future collision reduction. Due to high cost of injury and fatality collisions, more significant savings can be achieved by focusing on injury and fatality collision reduction. For this reason, Calgary SMP focuses on injury and fatality collision trends.

Trends and Facts – Casualty (Injury and Fatality) Collisions

More than 34,244 collisions occur within Calgary city limits annually, including 2,279 injury and 22 fatality collisions (based on an average between 2009 and 2011). This equates to 94 collisions per day. A review of prevailing casualty (injury and fatality) collision trends was conducted to gain a better understanding of where efforts should be focused to target high severity collisions.

Casualty Collision Rates

Over the last decade, the fatality collision rate within the city has been fluctuating between 2.0 and 6.0 fatal collisions per 100,000 people annually with an average of 3.6 per year (Figure 2). Based on the three year rolling average between 2002-2004 and 2009-2011, the fatality collision rate has declined by 45 percent.

Over the last decade, the injury collision rate has been steadily decreasing by an average of 7.6 percent annually. Enhanced vehicle safety technologies, improved roadway design and construction standards, ongoing public investment in infrastructure projects that enhance operations and safety, and a growing number of Calgarians that opt for safer travel modes such as public transit are a few of the many reasons contributing to the decline in the City's injury collision rate.

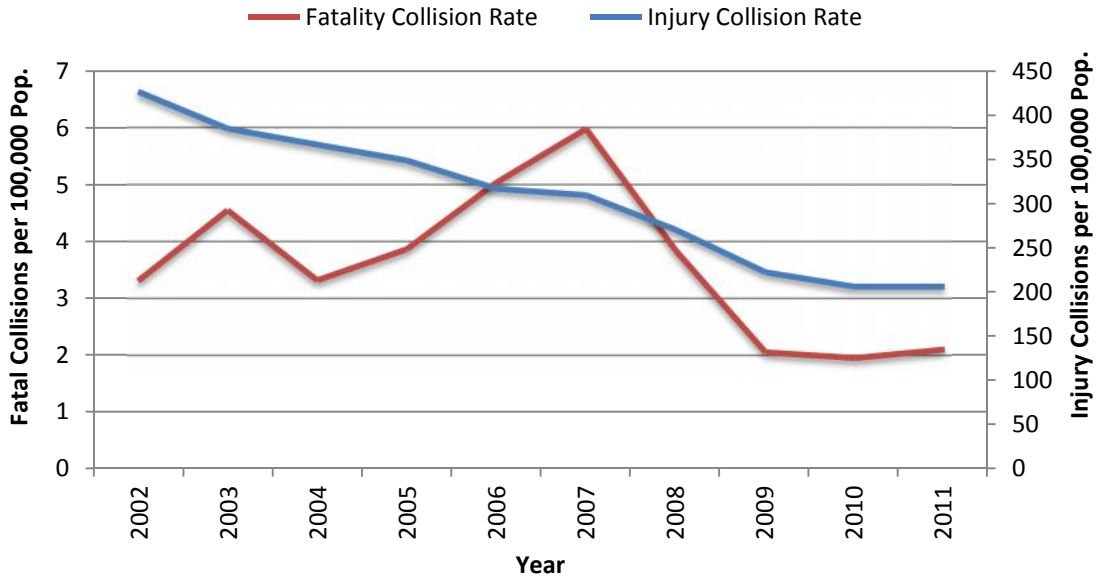


Figure 2: Fatal and Injury Collision Rate Trends 2002-2011

Casualty Collision Types

The distribution of the top eight casualty collisions among collision types is shown in Figure 3. The top eight collision types shown represent 96 percent of all casualty collisions. The rear end collisions account for one-third of total. Some of the potential causes of rear end collisions include following too closely, driver inattention, congestion, and improper lane changes.

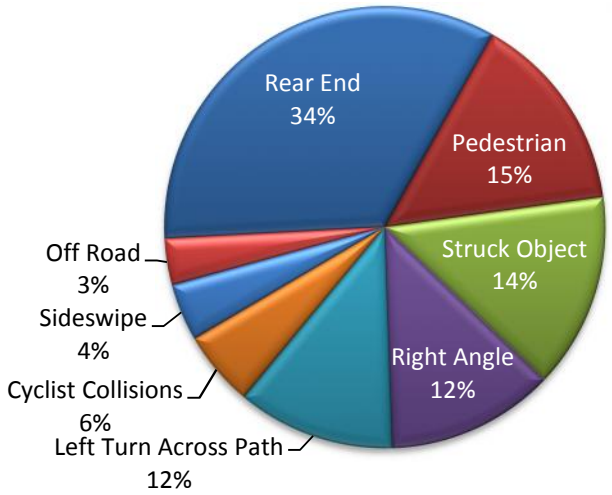


Figure 3: Top Casualty Collision Types, 2011

Pedestrians are extremely vulnerable when involved in a collision, and make up the second largest category. The third largest category is struck object. Collisions in this category often have similar causes to rear end collisions, but where the errant motorist opts to avoid a vehicle and strikes an object along the roadside. Right angle collisions and left turn across path collisions are both intersection related collisions while the remaining categories include sideswipe and off road collisions which are predominantly non-intersection related.

Facility – Collision Location

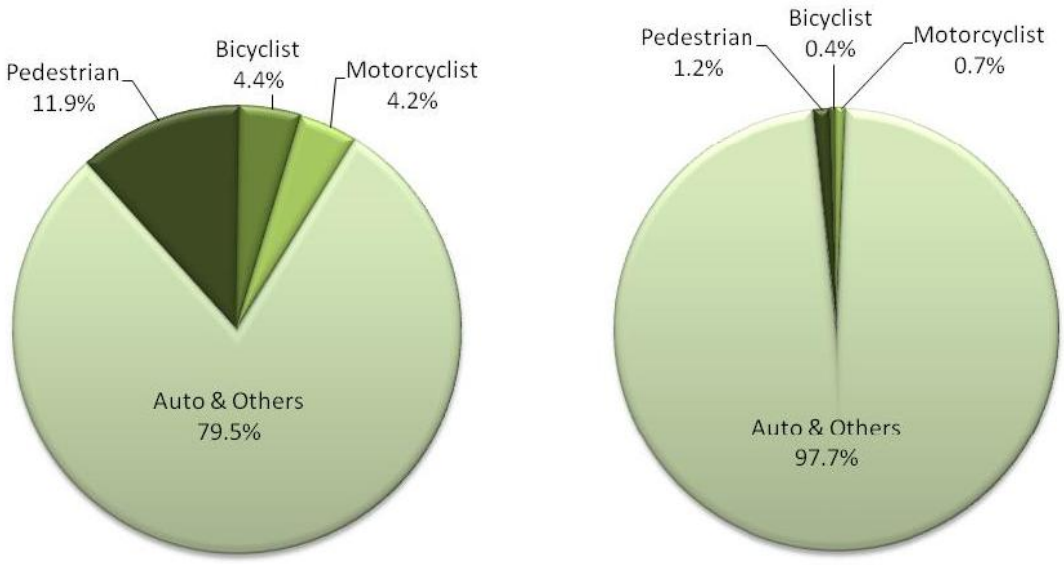
In 2011, 61 percent of collisions occurred at intersections, 38 percent at non-intersection locations, while 1 percent occurred at railroad crossings. Intersections are locations where two or more traffic flows converge and hence their inherent design involves points of potential conflict. Intersections pose challenges for all road users due to the need for judgement and decision making within a high driver workload environment which may cause a misjudgement or failure to react appropriately.

User

Vulnerable Road Users

Due to the vulnerability of pedestrians and cyclists compared to occupants of vehicles, they are more frequently injured and killed in collisions. Figure 4 shows the distribution of injury and fatality collisions by mode.

Pedestrians, bicyclists, and motorcyclists were involved in 2.3 percent of all collisions, but accounted for 20.5 percent of all casualties. This demonstrates that although collisions with vulnerable road users are rare, vulnerable road users represent a significant proportion of transportation-related casualties.



Casualties by Travel Mode **Total Collisions by Travel Mode**

Figure 4: Casualties and Total Collisions by Travel Mode, 2011

Transit Users

Transit is an important mode of transportation for many Calgarians. The CTP promotes placing increased emphasis on the use of transit as one of the preferred mobility choices into the future.

A comprehensive review of transit collisions was undertaken as part of the *Multi-Modal Safety Review* [9]. In 2007, there were no fatalities within the bus network and 10 percent of bus collisions resulted in a passenger on-board being injured. Within the light rail transit (LRT) network, there were 55 incidents in 2007, of which 4 percent resulted in fatalities and 20 percent involved an individual being injured. While The City strives to eliminate fatalities and injuries involving transit, safety performance of the LRT and bus transit is superior to other modes, considering the number of passengers the transit system carries. Continuously enhancing transit safety is important and helps to further expand transit use and improve the safety performance of the transportation network as a whole.

Impaired Drivers

According to the *Alberta Traffic Safety Plan* [5], when alcohol is involved in a collision, the collision is more likely to be severe and result in fatalities. Calgary's collision trends mirror this finding, as the likelihood of an injury collision increases three fold while a fatality collision is over nine times more likely when an impaired driver is involved. In the past ten years, the collision rate has been decreasing and has remained slightly over 20 casualty collisions per 100,000 population in the past three years.

Speeding Drivers

According to *Road Safety Vision 2010* [3], collision data shows that about 17 percent of all road users killed annually were traveling at excessive speeds. Calgary-specific data shows that during the last five years, speeding was a factor in an average of 13 percent of casualty collisions.

Speeding reduces the time available to perceive and react to impending hazards, and increases the distance required for a vehicle to stop. Moreover, speeding increases the forces present in the event of a collision, increasing the severity of a collision.

Distracted Drivers

The Alberta Motor Association estimates that one out of every five collisions is caused by driver distraction [10]. The Alberta Distracted Driving Legislation came into effect September 1, 2011 and carries a fine of $172 [11]. This comprehensive legislation restricts drivers from various distractive activities including using hand-held cell phones and texting or e-mailing. However, legislation is only the first step towards solving this problem. Enforcement, public education and a shift in social attitudes are necessary to eliminate distracted driving.

Vehicles

Based on Calgary's collision data, the vehicle type distribution (including automobile, truck, bus, motorcycle/scooter) is similar for all collisions and casualty collisions. The main difference exists for the motorcycle/scooter category where collision involvement increases from 0.4 percent to 2.8 percent for all collisions and casualty collisions, respectively.

Focus Areas

The transportation safety focus areas listed below have been derived from the information presented in the previous sections, representing categories where the incidence of higher severity collisions is over-represented. The highest potential benefit may be realized by targeting these focus areas.

- Intersections
    - Rear end, right angle, left turn across path collisions
- Mid-block locations
    - Struck object, sideswipe, off road collisions
- Vulnerable road users
    - Pedestrians, cyclists, motorcyclists
- Impaired and distracted driving
- Speeding

FIVE-YEAR TARGETS

Calgary's five-year safer mobility targets were developed for the overall casualty collision rate and specific targets were also developed for each of the focus areas. These targets are shown in Table 1.

Table 1: Five-Year Targets

	Target	Target Reduction	Measure
1.	Overall casualty collision rate	10%	Difference in rate per 100,000 population based on 3 year rolling average between 2009-2011 and 2015-2017
2.	Combined rear end, right angle, and left turn across path casualty collision rate	12%	
3.	Combined struck object, sideswipe, and off road casualty collision rate	5%	
4.	Vulnerable road user casualty collision rate	12%	
5.	Speeding involved casualty collision rate	5%	
6.	Impaired driving and distracted driving support	N/A	N/A
7.	Public satisfaction with transportation safety in Calgary	Improvement in 2017	Public feedback obtained in 2013

Impaired driving and distracted driving are predominantly viewed as issues related to enforcement, with Calgary Police Services as a key partner. Calgary Transportation will be working closely with Calgary Police Services to develop action plans to reduce impaired and distracted driving.

SAFER MOBILITY STRATEGIES

This section outlines strategies to achieve the targets identified in the previous chapter. Based on best practices, the strategies may have a significant, measurable and long-lasting impact on transportation safety in Calgary.

Each strategy is an independent component of the SMP, and requires individual implementation and management responsibility, resources and special skill sets. The strategies are summarized in Table 2 along with related focus areas.

An evaluation of the implemented strategies is required to ensure that good investments are built upon and expanded, and improvements made to less successful ones. Independent evaluations should be undertaken at the time of SMP final evaluation to quantify the benefit of the strategy and its sustainability.

Table 2: Safety Strategies and Related Focus Areas

Strategy \ Focus Areas	Intersections	Mid-block locations	Vulnerable road users	Impaired driving	Speeding
Safer Mobility Plan Management Strategy	✓	✓	✓	✓	✓
Transportation Safety Data Management Strategy	✓	✓	✓	✓	✓
Vulnerable Road User Safety Strategy	✓	✓	✓		✓
Safer Transit Strategy	✓	✓	✓	✓	
Transportation Network Screening Strategy	✓	✓	✓	✓	✓
In-Service Road Safety Review Strategy	✓	✓	✓		✓
Public Response Strategy	✓	✓	✓		✓
Public Education and Communication Strategy	✓	✓	✓	✓	✓
Targeted Enforcement – Support Strategy	✓	✓		✓	✓
Safety Research and Innovation Strategy	✓	✓	✓		✓
Road Safety Audit Strategy	✓	✓	✓		✓

Safer Mobility Plan Management Strategy

A safety plan involves a comprehensive, system-wide, multimodal, and proactive process to enable strategic safety management and integrate safety into the transportation decision-making process [12]. To be effective, a safety plan must be collaborative and based on accurate and timely safety data. Regular reporting and evaluating are vital to long-term success.

Transportation Safety Data Management Strategy

Data collection and management is fundamental to any transportation safety activities as the process must be evidence based and data driven to be effective. Data management involves many components such as data input, review, maintenance, and quality evaluation. High-quality data management enables:

- Accurate representation of collision trends leading to better investment decisions
- Accurate reporting to the public which may result in better education and more public support
- Effective monitoring and evaluation of transportation safety strategies

Vulnerable Road User Safety Strategy

Vulnerable road users are the users of the transportation network for whom the severity of collisions tends to be higher than for motorized vehicles, including:

- Pedestrians: all persons walking or jogging, using wheelchairs or mobility aids, wheeled carts, in-line skaters and skateboarders;
- Cyclists: using human-propelled and power-assisted bicycles; and
- Motorcyclists and scooter users.

Detailed vulnerable road user safety planning will be undertaken as part of this strategy.

Safer Transit Strategy

Calgary Transit is a vital travel alternative serving many Calgarians. As transit is a safer travel mode than automobiles, enhancing transit safety is imperative to further expand transit use and improve the safety performance of the transportation network as a whole.

Transportation Network Screening Strategy

Network screening is the process of identifying and ranking locations or segments that have a higher than expected collision experience. To effectively improve safety performance, network screening should be undertaken regularly. Network screening helps to focus road safety efforts on the sites with the highest potential for collision reduction.

In-Service Road Safety Review Strategy

An in-service road safety review is a formal review of safety performance of an existing in-service roadway feature by an independent and focused team. The main purpose is to improve safety for all modes. *The Canadian Guide to In-Service Road Safety Reviews* published by Transportation Association of Canada (TAC) [1] provides guidance and typical procedures for conducting in-service road safety reviews.

Public Response Strategy

Transportation safety related public feedback can be valuable in quickly identifying and addressing new safety issues and proactively responding to public enquiries in a consistent manner.

Public Education & Communication Strategy

Public education and communication is essential to raising awareness of road safety issues, influencing public attitudes and promoting safe behaviours, with the ultimate goal of reducing violations and collisions. Targeted public education campaigns based on relevant violation and collision data help to identify the most appropriate target audience and media campaigns.

Targeted Enforcement – Support Strategy

Targeted enforcement is a data-driven approach that focuses on violations proven to cause fatal or serious injury collisions and locations where these tend to occur. These violations typically include speeding and impaired or distracted driving. Some of the tools that may be used include: automated and manual speed enforcement, speed on green and participation in the Government of Alberta Selective Traffic Enforcement Program (STEP).

Targeted enforcement maximizes road safety effects by increasing awareness, decreasing violation rates, and changing road user behaviours related to high-severity collisions. These result in decreased collision rates, lower numbers of collision victims, and reduced costs to society.

Safety Research and Innovation Strategy

Research and innovation is an important component of transportation safety, facilitating the introduction of new and alternative solutions to existing problems. They offer an opportunity to evaluate the effectiveness of methods in practice. In addition, research on best practices from other jurisdictions can also be applied locally.

Road Safety Audit Strategy

A road safety audit (RSA) is a formal examination of safety for a new facility or upgrades to an existing facility, conducted to identify opportunities to improve safety. The review is typically conducted by a multi-disciplinary team, independent of the design team, and focuses on all modes expected to use the facility. It may be conducted during planning, design, construction or pre-opening stages. According to the Transportation Association of Canada (TAC) *Canadian Road Safety Audit Guide* [13], RSAs identify safety implications of design components and ensure that safety is an explicit consideration.

A FRAMEWORK FOR PARTNERSHIPS AND COLLABORATION

The Safer Systems approach recognizes that everyone has a responsibility for road safety. Improving the safety of Calgary's roadways is in the interest of everyone and cannot be accomplished by one agency. Partnerships between organizations, corporations and public and private agencies must be fostered to achieve this common goal. Ongoing and successful grass-roots partnerships often lead to productive collaboration, knowledge sharing, and cooperation among key road safety stakeholders.

Partnerships and collaboration play an important role in a number of the strategies presented in the previous section. Those partnerships range from a local group of professionals within business units of the Transportation Department and the Calgary Police Services Traffic Section, to a broader multi-disciplined team, to community-based groups who collaborate to identify solutions for safer mobility in Calgary.

Safety Action Team (Safety A-Team)

A **Safety Action Team** or **Safety A-Team** (Figure 5) consists of professionals within the Transportation Department and the Calgary Police Services. This group is also the one to respond to aldermanic and/or public enquiries as needed. The Safety A-Team would meet monthly to address transportation safety trends and to identify specific issues and solutions utilizing the principles of the 5 Es, and to provide the analysis and evaluation of the effectiveness of the actions.

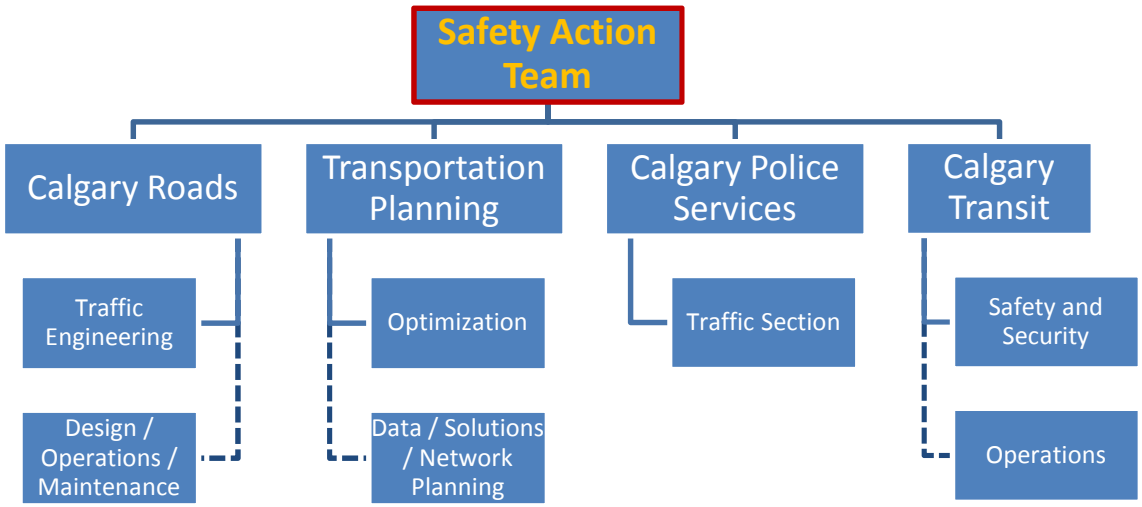


Figure 5: Safety Action Team

Safer Mobility Operations & Enforcement Team (Ops & Cops)

A broader, multi-disciplined team (shown in Figure 6 and similar to the current "Ops & Cops" committee) would meet on a monthly basis to collaborate and provide input to specific countermeasures, safety initiatives and communication about safety strategies. This group would also have sub-teams to research and report on specific activities. Meeting organization and facilitation would be alternated between Calgary Police Service, Transportation Planning and Calgary Roads (the Safety Action Team), and highlight the specific activities that tie into the Alberta Transportation Office of Traffic Safety monthly themes. Each member of the group would be given an opportunity to contribute to agenda items and identify safety-related issues at each meeting.

Figure 6: Safer Mobility Operations & Enforcement Team

Safer Mobility Advanced-technology Research Team (SMART)

To ensure that the SMP is based on best practices and current research, a research and innovation team should also be set up to provide that focus. This group would be made up of the primary Safety Action Team, plus Alberta Transportation's Office of Traffic Safety and other municipal jurisdictions within Alberta. The meetings would take place on an annual basis with additional 1-2 conference calls between meetings. The face-to-face meeting could correspond with one of the annual conferences of the "affiliated" organizations as noted in Figure 7.

Figure 7: Safer Mobility Advanced-technology Research Team (SMART)

Calgary Communities for Safer Mobility (CCSMT)

A community-focused group would provide opportunities for engagement, communication, education, and feedback on safety initiatives. This group (shown in Figure 8) would include the Transportation Department, Safer Calgary, boards of education, and various other community associations. CCSMT would meet on a biannual basis, but may meet more frequently to discuss the results of the annual Safer Mobility Report Card and Action Plan when it is available, and to deliberate on potential community focused actions. This group could also provide feedback on the Alberta Safety Calendar and the specific areas of focus for upcoming months. Other issues that are specific to the member organizations should also be a part of the discussions at each meeting.

Figure 8: Calgary Communities for Safer Mobility (CSSMT)

MONITORING, EVALUATION, AND REPORTING

To keep momentum and ensure success, the SMP features built-in monitoring, short-term planning, and evaluation components. Each of these components is associated with reporting requirements to feed the established communication avenues and inform on progress.

Annual Monitoring and Action Plan

The annual activities associated with the SMP will have a two-fold purpose: monitoring and short-term planning. Regular monitoring of the SMP progress will be undertaken on annual basis, after the previous year's collision data set is confirmed. The monitoring will involve two components:

- New collision data summary
    - Annual collision trends update outlining progress towards SMP targets
    - Analysis of collision data and comparison to the previous year's
- Summary of past year's activities and accomplishments for each strategy

The short-term planning component involves the development of an action plan for the following year. An action plan will be developed for each strategy by the unit responsible for the ongoing management of that strategy. The action plan will:

- Set out specific actions to deliver the strategy.
- Reflect any new collision trends or best practices.
- Include specific annual goals and targets, timelines, partnerships, and funding requirements.

The findings will be compiled in the **Safer Mobility Annual Report Card and Action Plan** document to be available by Q3 of each year. The document will also serve as a basis for the annual collision information release to the public.

Final Evaluation

The final evaluation of the 2013-2017 SMP will be conducted once the 2017 collision data becomes available. The final evaluation report will address the following:

- Collision data review to determine if SMP targets were met
- Assess the effectiveness of the strategies
- Identify lessons learned, and
- Guide the development of the next cycle of the plan

The accurate evaluation of the actions implemented within the SMP timeline has significant benefits for the planning process and decision makers. It enables a formulation of conclusions regarding the effectiveness of each component of the SMP. The conclusions drawn will help to direct their limited resources towards projects and strategies that are most likely to result in the greatest reduction in injuries and fatalities. The absence of this intelligence may drive continued investment without evidence-based justification.

The 2013-2017 SMP final evaluation and the subsequent version of the SMP should be completed by 2018 Q3 based on the 2015-2017 data.

CONCLUSION

This SMP is the first step towards a formal, evidence-based, coordinated, and accountable transportation safety management process for the City of Calgary Transportation Department. The annual action planning process will help direct appropriate resources to each strategy and focus area, so that significant progress towards the targets can be achieved. This will assist in further raising the profile of transportation safety based on the 5 Es of engineering, education, enforcement, evaluation and engagement.

As an increasing number of municipalities strive to develop their own solutions to improve transportation safety, it is critical that the experiences, innovative approaches and lessons learned be shared amongst practitioners. A continuously expanding knowledge base will enable a more direct path to saving lives and reducing injuries on Canada’s roads.

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