



# Crowchild Trail Study

## Road Safety Review Summary

### Introduction

As part of the Crowchild Trail Study, the project team conducted a road safety review, officially called an in-service road safety review (ISRSR), of the Crowchild Trail corridor from 24 Ave. N.W. to 17 Ave. S.W.

*An ISRSR is an engineering study of the safety performance of an existing roadway. It typically involves a review of historical data to identify collision trends and in-field observations of current conditions.*

Conducting road safety reviews are one of many strategies identified in the 2013-2017 Calgary Safer Mobility Plan. This plan describes a city-wide approach to improving transportation on Calgary's transportation network for all modes of travel. The City undertakes several location-specific safety reviews each year and implements cost-effective measures aimed at reducing the risk of collisions.

The purpose of the Crowchild Trail Study road safety review is to identify improvement opportunities that can be incorporated in the study's recommendations.

### What we heard from Calgarians

Early in the study, Calgarians provided input on what they thought were issues along the Crowchild Trail corridor. Key issues we heard include:

- **High traffic volumes.**
- **Traffic merging and weaving** on the bridge over the Bow River and at intersections along the corridor due in part to discontinuous lanes (e.g. lanes that become access ramps or turn-only lanes).
- **Emergency response and health services delivery cannot rely on Crowchild Trail** due to congestion despite it being the most direct north-south route and east-west access.
- **Bottlenecks** from high volumes of traffic, lane reductions, and lane changes in short distances along the roadway.
- **Traffic lined-up for 10 to 12 kilometers** during the morning and afternoon commutes (from Brentwood Station in the a.m. to 33 Ave. S.W. in the p.m.).
- **Transit service delayed** by traffic congestion.
- **Bus stops can be difficult to access and are not comfortable environments** for people waiting for buses.
- **Pedestrian and cycling access to major destinations** (e.g. Foothills Hospital, University of Calgary, Bow River pathways) is indirect and difficult to find.

- **Crossing Crowchild Trail is difficult** for people who walk, bike and drive at signalized intersections. Pedestrian overpasses are narrow and some of them no longer meet today's accessibility standards.

## Methodology

As part of the road safety review, the team reviewed the following:

- 2012 to 2014 collision data gathered from the Calgary Police Service for incidents that occurred along Crowchild Trail from 24 Ave. N.W. to 17 Ave. S.W.
- Current traffic volume data.
- Intersection operations and delays.

In-field observations were also conducted, including:

- Day-time and night-time reviews in June and July 2015, including morning and afternoon rush hours, and at other times during the day.
- Observations in September when the school (including post-secondary) is in full session and during the Labour Day Classic football game.

## Key findings

Overall, collision trends along Crowchild Trail from 24 Ave. N.W. to 17 Ave. S.W. is comparable to other similar roadways in the city. Other findings include:

- Collisions on Crowchild Trail account for 1.7 per cent of city-wide collisions.
- Collisions have been decreasing in recent years.
- Rear-end collisions are the most common type of collisions that occur. Rear-end collisions are also the most common collisions that occur citywide.
- Sideswipe collisions account for 12 to 16 per cent at major intersections and interchanges. This is comparable to the city-wide average of 15 per cent.

During the field review, potential improvement opportunities were identified for all road users, including people who drive, walk, cycle, take transit, and have mobility challenges. Key findings from the in-field observations include:

- Lane continuity and left hand entries/exits result in unsafe weaving and merging.
- Pedestrian bridges are not accessible—they were not built with wheelchair ramps.
- Bus stops are located close to traffic lanes and offer people who take transit little shelter from road and traffic conditions.

## Recommendations

The road safety review identified short, medium and long-term improvement opportunities along Crowchild Trail.

Short-term recommendations include:

- Signage improvements such installing signs like Variable Message Boards (speed reader boards with congestion and speed information).
- Improve capacity and operations at busy intersections to address collisions caused by congestion.
- Identify opportunities for better way-finding signs for people who walk and bike.

Medium-term recommendations include:

- Review bus stops for improvements such as relocation of stops, enhanced lighting and addition of features such as a bus call system.
- Identify opportunities to improve accessibility such as adding wheelchair ramps, audible pedestrian signals, etc.

Long-term recommendations include:

- Design alternatives to provide lane continuity along the corridor, longer merging distance and geometric changes at intersections.
- Updating road geometrics.
- Improve connections for people who walk and bike.

## **Next Steps**

In general, findings from the road safety review are consistent with the key issues we heard from Calgarians. Recommendations will be considered one of the technical inputs into the Crowchild Trail Study.

Short-term recommendations have been shared with City of Calgary Roads to be incorporated in routine maintenance schedules and operational improvements, where applicable. Medium and long-term recommendations will be incorporated into the Crowchild Trail Study.