

Road Safety Audits (RSAs) at High Crash Locations



Mario Dupigny-Giroux, P.E. VTrans - Highway Division – Office of Highway Safety

What Road Safety Audits Are

A formal examination of an existing or future road by an independent, multi-discipline team

To IDENTIFY

WHAT road elements present a safety concern, TO WHAT extent, TO WHICH road users, and UNDER WHAT circumstances?

WHAT opportunities exist to eliminate or mitigate these concerns?

RSA Success Story

August 2015, Alburgh Resident: "I almost got hit there today. I' d like to see at least someone come and observe traffic on a Saturday morning. Perhaps there might be a change in attitude about how "DANGEROUS" that intersection really is."

A RSA was conducted at the two-way stop controlled intersection of US 2 and VT 78 in Alburgh. The potential safety issues included right angle crashes, poor corner sight distance, left turning truck conflicts

- High Crash Location, 11 crashes (between 2011 and 2015)
- Solution: All-Way Stop
- Implemented October 2016
- Crash Reduction = 100%, no crashes to date
- Implementation Cost = \$15,000
- B/C Ratio = 100:1

A Process for Identifying Safety Issues from the Perspective of all Roadway Users

In 2015 and 2016, VTrans conducted 22 RSAs at high crash locations as part of our Highway Safety Improvement Programs

A road safety audit provides a set of "fresh eyes"

A multi-discipline team can often facilitate the implementation of solutions that were originally met with concerns

A RSA is not just a cursory review of the safety of a road or intersection

The Process A road safety audit follows a structured process.

Start-up Meeting: Discuss safety issues, Review crash history and other highway data

Field Review: Confirm safety issues, Identify additional issues

Post- Field Review Meeting: List issues, Identify potential solutions

Post-Audit Meeting: Present findings to RSA requester and other parties

Formal Response: Responsible entities comments on the feasibility of the solutions



Multi-Discipline Team

The road safety audit team is composed of experts from various disciplines

- Design Engineers
- Traffic Engineers
- Safety Engineers
- Planners
- Maintenance
- Bike & Ped Advocates
- **Law Enforcement Officers**



Other Areas of Potential Use

RSAs could be incorporated into the Project Definition Process for certain projects

Project Definition Process

Surface Improvement ProjectsRSAs provide the greatest benefits

Capital Improvement ProjectsRSAs provide significant safety benefits

Develop
Purpose and
Need

Develop
Purpose and
Need

Define
Alternatives

Evaluate &
Select
Alternative

Rehabilitation Projects

RSAs may result in significant safety benefits