

Benefits

- Helps produce designs that reduce the number and severity of crashes.
- May reduce costs by identifying safety issues and correcting them before projects are built.
- Promotes awareness of safe design practices.
- Integrates multimodal safety concerns.
- Considers human factors in all facets of design.

“The Road Safety Audit process is valuable from a perspective of identifying deficiencies, developing mitigative strategies, improving public relations, and enhancing our agency’s credibility.”

– Bernie Arseneau,
Director, Office of Traffic, Security,
and Operations, Minnesota DOT



A Road Safety Audit is more than a safety review...

Typical safety review

- Team has design background only
- Cooperative process
- Typically no field reviews are performed
- Review consists of compliance with minimum standards only
- Human factors not emphasized
- Multimodal not emphasized
- Emphasizes crash clusters, does not consider crash potential—REACTIVE

Road Safety Audit

- Teams are multidisciplinary and vary with review stage and scope
- Independent of design
- Early reviews and monitoring—1 to 5 field reviews
- Checklist/prompt list used, looks beyond minimum standards to address design consistency and other potential areas of concern
- Considers human factors: expectations, increased speed, elderly
- Multimodal: bikes, pedestrians, trucks, emergency vehicles
- Anticipates traffic conflicts and potential for crashes—PROACTIVE

AASHTO TIG— Road Safety Audit Contacts

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Training available at:

National Highway Institute
www.nhi.fhwa.dot.gov

Course: 380069A

Title: Road Safety Audits and Road Safety Reviews



FHWA's Road Safety
Audit Program
www.roadwaysafetyaudits.org



AASHTO's Technology
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<http://tig.transportation.org>

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History of Road Safety Audits

In the 1980s, the United Kingdom was the first country to conduct Road Safety Audits (RSAs). Road Safety Audits next spread to Australia, New Zealand, Canada, and Europe. In 1996, the Federal Highway Administration (FHWA) conducted an international scan on road safety audits to bring this safety tool to the United States. Road Safety Audits have been conducted in the United States since 1997. A workshop to promote RSAs was held in 1998,

and several states participated in a pilot program to assess the benefits of RSAs.

Since then, RSAs have been conducted in approximately 20 state and local agencies, and the National Cooperative Highway Research Program (NCHRP) has completed synthesis 336 "Road Safety Audits." Also, FHWA is trying to increase the implementation and integration of RSAs into state and local safety programs.

The American Association of State Highway and Transportation Officials' Technology Implementation Group (AASHTO TIG) selected Road Safety Audits as a Focus Technology in October 2004. The Technology Implementation Group is a product of the Strategic Highway Research Program, using the Lead State concept to promote market-ready, high payoff, innovations to the transportation community.

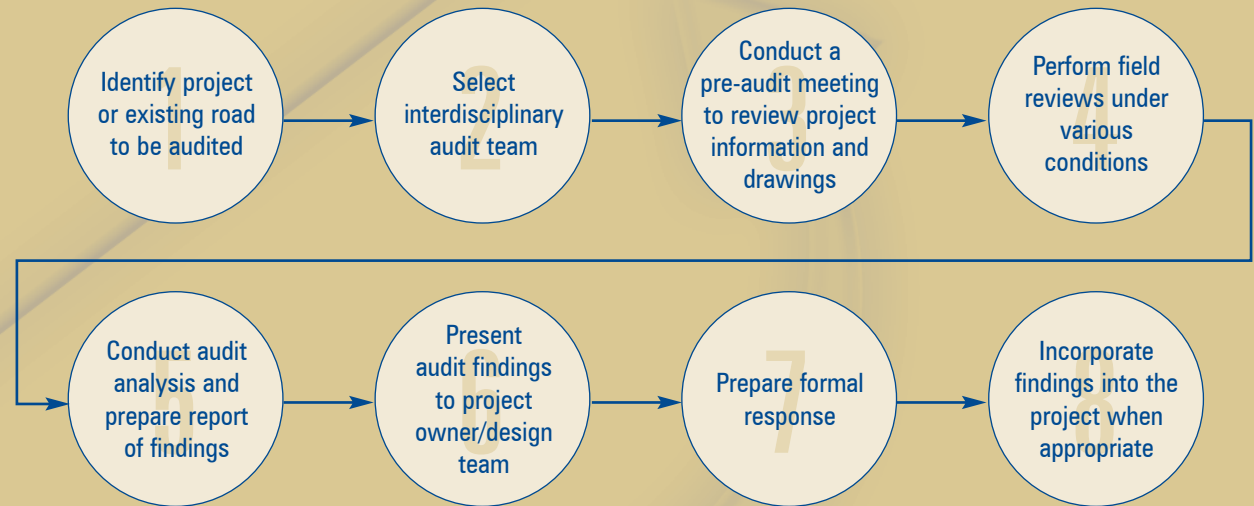
A Road Safety Audit Is...

...a formal safety performance examination of an existing or future road or intersection by an independent audit team.

"We have implemented RSAs on proposed resurfacing projects. Previously, very few safety improvements were incorporated into our resurfacing projects. We now see our staff consistently looking for and implementing numerous low cost safety improvements on Iowa's roads."

– Tom Welch
State Transportation Safety Engineer, Iowa DOT

Steps to Conduct RSAs



Improvements

RSAs can be used in all phases of project development and implementation—planning, design, and construction. Typical improvements suggested include:

- Removal of sight distance obstructions
- Additions and design changes to turn lanes
- Improvement to acceleration/deceleration lane design

"Road Safety Audits are a proven way to review just how safe our local roads are and can be a valuable tool for local government road professionals in making their roads safer"

– Tony Giancola, NACE Executive Director

- Illumination,
- Median barrier placement
- Consideration of pedestrians' ability to cross street
- Improvements to superelevation
- Drainage improvements
- Roadway shoulder and lane-width modifications
- Access management/consolidation of driveways
- Realignment of intersection approaches.

Keys to Success

From agency experience, the keys to success are:

- Having agency support and willingness to incorporate audit findings
- Employing small multidisciplinary audit teams consisting of three to five people from various departments—highway/traffic safety, traffic engineering, planning, geometric design, construction, maintenance, human factors, and enforcement
- Conducting the audit at the earliest possible stage
- Being willing to investigate new ideas outside the traditional scope of work.