

South Carolina Department of Transportation

Engineering Directive

Directive Number: ED-74 **Effective:** September 1, 2026

Subject: Safety – Road Safety Assessment Program Prioritization Process

References: S.C. Code of Laws, Section 57-1-370, 1976, as amended;
S.C. Code of Regulations 63-10, as amended

Primary Department: Traffic Engineering

In 2007, the South Carolina General Assembly enacted Act 114. One of the landmark items in Act 114 was the requirement that the South Carolina Department of Transportation (SCDOT) establish a project prioritization process. In 2016, the General Assembly enacted Act 275. Act 275 eliminated some of Act 114's requirements but it retained the requirement for project prioritization. This requirement is codified in Section 57-1-370 of the South Carolina Code of Laws, 1976, as amended. Additional detail on the process is found in S.C. Code of Regulations 63-10, as amended.

This engineering directive details the process for prioritizing and selecting projects for **The Road Safety Assessment (RSA) Program** using objective and quantifiable criteria. A description of the RSA process is referenced in enclosure 1 or can be referenced on [FHWA's website](#).

The RSA candidate selection process includes an analysis of up to five years of statewide crash data along all non-interstate highways. The crash data is divided into one -mile segments over the entire non-interstate highway network.

SCDOT currently maintains approximately 41,500 miles of roadways. The purpose of this program is to achieve a significant reduction in traffic fatalities and serious injuries on our roadways through the implementation of infrastructure-related improvements.

Crash data is received from South Carolina Department of Public Safety (SCDPS) on a quarterly basis. SCDPS is the official custodian of the state's master crash data file.

Locations of crashes are recorded by the investigating officer on the collision report and SCDPS records the crash details. The crash data from SCDPS is imported into SCDOT's Safety Management Software (SMS), which provides the total number of fatalities and serious injury crashes along with associated crash factors within the above defined segments.

The following **relevant** criteria will be used when identifying the RSA safety candidate list.

- **Public Safety** – The sole purpose and need of this program is to improve public safety by reducing the number and severity of highway related crashes.
- **Financial Viability** – The financial viability is based on the consideration of project cost in comparison to the six-year Statewide Transportation Improvement Program (STIP) budget. This information is used to determine the number of projects considered in the candidate pool.
- **Total Crashes** – The total number of crashes resulting in a fatality or serious injury within a selected corridor.

The following Act 114 criteria were considered but deemed **not relevant** as they relate to this program category priority list, as they do not support the **purpose and need** of the RSA program.

- **Volume-to-Capacity Ratio** – Not relevant as part of the prioritization process since this criteria does not meet the program category “safety” purpose and need.
- **Truck Traffic** – Not relevant as part of the prioritization process since this criteria does not meet the program category “safety” purpose and need.
- **Pavement Condition** – Not relevant as part of the prioritization process since this criteria does not meet the program category “safety” purpose and need.
- **Environmental Impact** – Not relevant as part of the prioritization process since this criteria does not meet the program category “safety” purpose and need.
- **Potential for Economic Development** – Not relevant to the prioritization process since this program category consists of the rehabilitation and reconstruction of existing roads.
- **Alternative Transportation Solutions** – Not relevant as part of the prioritization process since this criteria does not meet the program category “safety” purpose and need.
- **Consistency with Local Land Use Plans** – Not relevant to the prioritization process since this program category consists of the rehabilitation and reconstruction of existing roads.

Criteria

A RSA candidate list will be developed in the SMS database by using the latest five (5) years of statewide crash data, through a fixed length analysis of one (1) mile segment lengths. The candidate list will then be prioritized by the highest number of fatal and / or serious injury involved crashes, also referred to as total F&SI. If a secondary prioritization is needed, total fatal crashes will be used. In the event an additional prioritization factor is required, total fatal and injury (F&I) crashes will be used.

RSA candidate locations will then be analyzed in ranked order and screened for additional factors to ensure project viability including but not limited to; data accuracy, availability of engineering solutions to reasonably reduce crashes, project overlaps (past, present, and/or future), functional classifications, crash patterns, existing conditions, etc.

Final project list termini may be adjusted based on logical termini, if other segments from the ranked list appear adjacent to the initial location, or based on engineering judgement. Financial viability and available funding will be used to determine the extent of the candidate list.

The final candidate lists along with a certification of Act 114 compliance shall be presented by the State Traffic Safety Engineer, reviewed by the Director of Traffic Engineering and Deputy Secretary for Engineering, and submitted to the Secretary of Transportation for approval.

SCDOT does not guarantee any future project, scheduling priority, nor any specific countermeasures as projects proceed. As scoping, designs, and budgets are proposed, projects may be altered, removed, or delayed based on updated design standards, funding, and engineering judgement.

All data used for project prioritization will be kept on file as required by Departmental Directive 51 and SCDOT's record retention schedules.

Recommended by: Duncan C. Smith, P.E.
State Traffic Safety Engineer

Submitted by: Jae Mattox, P.E.
Director of Traffic Engineering

Approved by: Rob E. Perry, P.E.
Deputy Secretary for Engineering

History: Issued on July 25, 2018
First Revision on September 1, 2026

APPENDIX A
FOR ENGINEERING DIRECTIVE 74

Enclosure 1

SCDOT Road Safety Assessment Program Process

INTRODUCTION

Road Safety Assessments (RSAs) are identified as an effective strategy to identify potential safety improvements for many of the state's SHSP emphasis areas, such as intersection and roadway departure crashes. SCDOT's Highway Safety Improvement Program (HSIP) provides a funding mechanism and data driven process to identify the best engineering countermeasures for the prevailing crashes at a location. The identification of safety problems within candidate segments and the development of countermeasures to address observed safety issues are critical components to the overall success of the HSIP program. HSIP funds have been allocated to improve the candidate RSA segments with the most injuries and deaths from crashes. This document describes the RSA process.

RSA DESCRIPTION AND BACKGROUND

A road safety assessment is defined as a formal examination of an existing or a future highway or traffic project in which a team of independent and multidisciplinary examiners report on the segment's safety performance. The overall objective of the RSA is to identify potential roadway safety issues for roadway users and to consider measures to eliminate or mitigate the safety deficiencies. The process can be best applied to roadway segments of 1 to 3 miles in length and is used on rural as well as urban roads.

SCDOT's focus will be conducting RSAs on existing roadways, typically 1 to 3 miles in length with locations selected as described in EDM ???. The reviews will consider the roadway and traffic control elements in the context of the multiple human, vehicle and roadway causes for the crashes that have occurred and the events leading up to, during and after the collision.

RSA PROCESS

The RSA process occurs after potential segments have been screened to determine the priority locations by the SCDOT Highway Safety Office. The safety office staff will be expected to play a major role in the assessment of safety and operations of the corridor. Highway Safety staff will also be responsible for conducting the crash data analysis and reviewing the RSA to allocate funding to the proposed safety improvement projects that are eligible.

Figure 1 identifies the nine major steps of the process used by SCDOT to conduct the RSA.

Figure 1.

RSA Process

