

## South Carolina Department of Transportation

### Engineering Directive

**Directive Number:** ED-73 **Effective:** July 25, 2018

**Subject:** Interstate Safety Project Prioritization Process

**References:** Section 57-1-370 of South Carolina Code of Laws, 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 Interstate Safety Program** using objective and quantifiable criteria. The process includes an analysis of up to five years of statewide crash data along all interstate highways. Interstate corridors are segmented into 30 mile lengths for data analysis.

SCDOT currently maintains approximately 41,500 miles of roadways, of which 843 miles are on the interstate system. The purpose of this program is to achieve a significant reduction in traffic fatalities and serious injuries on our interstate 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 corridors.

The following **relevant** criteria will be used when identifying the interstate 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** – 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.

- **Roadway Departure Crash** – A crash which occurs after a vehicle crosses an edge line or center line, or otherwise leaves the traveled way.
- **Roadway Departure Density** – The total number of roadway departure crashes in a location corridor divided by the corridor length.
- **Total Crashes** – The total number of crashes resulting in a fatality or serious injury within a selected corridor.
- **Type of Crash** – Road departure crash, which is defined by the vehicle leaving the travel lane.

The interstate safety candidate list will be comprised of locations within the SMS database.

### **Criteria**

An interstate safety candidate list will be developed by sorting the interstate corridor list (as described above) by highest total roadway departure fatal and serious injury related crashes. Ties will be broken by highest roadway departure density. Financial viability will be used to determine the extent of the candidate list. These candidates will be further analyzed by safety engineers for consideration. Candidates will be selected for projects based upon the availability of engineering solutions to reasonably reduce crashes occurring within the location segment. Candidates may be eliminated from selection for various reasons such as overlap with an active project from another funding source, previously reviewed and eliminated as a candidate within the past year, or no reasonable engineering solution is available.

The final list will be prioritized based on the same criteria as was utilized to establish the candidate list.

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 interstate safety 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.

Upon completion of the analysis, the prioritized list of interstate safety projects will be presented to the SCDOT Commission for approval.

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

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