

More Information

Learn more through these useful resources:

Federal Highway Administration

Environmental Information:
www.fhwa.dot.gov/environment

Noise regulations:
www.fhwa.dot.gov/environment/noise/



South Carolina Department of Transportation

Office of Communications

955 Park Street

Columbia, South Carolina

www.scdot.org

HIGHWAY NOISE ABATEMENT



HIGHWAY NOISE ABATEMENT

The South Carolina Department of Transportation (SCDOT) has formally established a policy to address the impact of highway traffic noise on people in neighborhoods, and in other noise-sensitive areas, such as churches, schools, hospitals and certain public recreational areas. SCDOT's Noise Abatement Policy is based on Federal Highway Administration (FHWA) regulations.

WHAT IS NOISE ABATEMENT?

When noise impacts are predicted the following noise abatement measures are considered as a means to reduce the traffic noise impacts.

- Not constructing the proposed project.
- Modifying the proposed project.
- Traffic control measures.
- Acquisition of property.
- Noise insulation.
- Noise barriers.

WHEN DOES SCDOT CONDUCT HIGHWAY TRAFFIC NOISE STUDIES?

SCDOT conducts studies and looks into options for reducing noise levels along proposed federally funded highway improvement projects. These projects must meet one of the following conditions:

- A highway is being built on new location.
- An existing highway is being redesigned with a significant change in its horizontal or vertical alignment.

- The number of through traffic lanes on an existing highway is being increased.

HOW IS A NOISE IMPACT DETERMINED?

A computer model is used to analyze and predict noise levels based on the loudest hour of the day for future conditions. Existing noise levels are measured in various locations along the proposed highway project and used to validate the computer model. The area's topography, the distance between the road and nearby properties, traffic speeds and the sounds generated by different types of vehicles are considered along with the road's design. Using that data, the computer model predicts the future noise level, which is compared with FHWA noise abatement criteria. If this comparison identifies an impact, SCDOT must evaluate noise reduction options.

HOW CAN HIGHWAY TRAFFIC NOISE BE REDUCED?

Several options are available. First, SCDOT tries to reduce the anticipated noise while they are designing the road by shifting the road away from the affected properties. SCDOT also considers reducing the speed limit, restricting heavy truck traffic on the road, or designing the road so its surface is lower through the affected area, creating a natural sound barrier. If designing the road differently will not reduce the noise or is not practicable, SCDOT engineers then consider noise barriers or earthen berms. The barriers or berms can reduce traffic noise and improve the quality of life for people living adjacent to the roadway. A noise wall or earthen berm must meet the following conditions:

- It must not create a safety or engineering problem.
- It must reduce noise levels by at least five decibels for the impacted receptors that the structure protects.
- It must cost \$25,000 or less per benefitted receptor.

WHAT WILL THE NOISE BARRIER LOOK LIKE?

Noise barriers come in various materials, textures, colors, and finishes. The goal is to select an attractive design that blends well with its surroundings. A consistent appearance is also one of the main considerations when the barriers are to be used in a long corridor.

WHO MAINTAINS NOISE BARRIERS?

Noise barriers built on state rights of way are typically maintained and repaired by SCDOT.

