

WHAT IS THE ROADSIDE CLEAR ZONE?

The “Manual of Uniform Standards for Design, Construction and Maintenance for Streets and Highways” is published by the Florida Department of Transportation (FDOT). This manual, often called the FDOT Greenbook, defines the term “roadside clear zone.”

Chapter 3 of this manual states:

“The roadside clear zone is that area outside the traveled way available for use by errant vehicles. Vehicles frequently leave the traveled way during avoidance maneuvers, due to loss of control by the driver (e.g., falling asleep) or due to collisions with other vehicles. The primary function of the clear zone is to allow space and time for the driver to retain control of his vehicle and avoid or reduce the consequences of collision with roadside objects. This area also serves as an emergency refuge location for disabled vehicles.”

“The design of the roadway must also provide for adequate drainage of the roadway. Drainage swales within the clear zone should be gently rounded and free of discontinuities. Where large volumes of water must be carried, the approach should be to provide wide, rather than deep drainage channels. Side slopes and drainage swales that lie within the clear zone should be free of protruding drainage structures (CHAPTER 4 - ROADSIDE DESIGN, D.6.c. Culverts).”

“In the design of the roadside, the designer should consider the consequences of a vehicle leaving the traveled way at any location. It should always be the policy that protection of vehicles and occupants shall take priority over the protection of roadside objects. Further criteria and requirements for safe roadside design are given in Chapter 4 - Roadside Design.”

Clear zones can be enhanced by some innovative techniques. Using selected plant species, landscaping can provide a natural crash cushion of thick shrubbery or bushes. Placing electric and telephone lines underground will eliminate concrete poles along the side of the road. Billboards and other large signs can be built using supports that angle away from the roadway. Smaller signs can use special breakaway supports. Street lights can bolt to low-profile concrete foundations. Stormwater drains and culverts can be designed for vehicles to drive over them rather than crash into them.

Trees, business signs, or local landmarks are sometimes identified for relocation during a road widening project in order to provide an adequate clear zone. It is often difficult for residents to accept the need for relocating such objects to accommodate a larger road, but highway designers are responsible to the public for developing the safest practical roadway design.

When you see damaged light poles, heavily scarred tree trunks, or guardrail installed around a chipped concrete foundation and think about the events that caused the damage, you will understand why engineers insist on adequate roadside clear zones.

For more detailed information on “Roadside Clear Zones” see the FDOT Greenbook:
<http://www11.myflorida.com/rddesign/Florida%20Greenbook/Florida%20Greenbook%202002.htm>