

Understanding Traffic Engineers

This is not an official NCDOT presentation.

The Purpose of Traffic Engineering

Getting people where they are going. Getting them there safely. Getting them there efficiently.

My Guiding Principles

It's all about conveying appropriate information.

It's all about gaps.

It's all about saying "NO"!

Manual on Uniform Traffic Control Devices

for Streets and Highways

2009 Edition



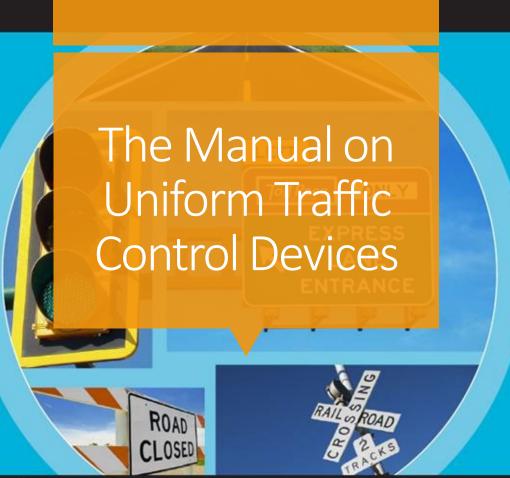
The Manual on Uniform Traffic Control Devices



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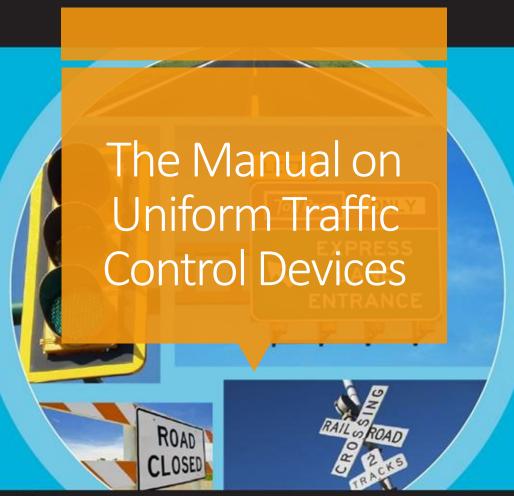


- 2009 Edition Chapter 1A. General
- Section 1A.01 Purpose of Traffic Control Devices
- Support: 01 The purpose of traffic control devices, as well as the principles for their use, is to promote highway safety and efficiency by providing for the orderly movement of all road users on streets, highways, bikeways, and private roads open to public travel throughout the Nation.
- 02 Traffic control devices notify road users of regulations and provide warning and guidance needed for the uniform and efficient operation of all elements of the traffic stream in a manner intended to minimize the occurrences of crashes.

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Section 1A.02 Principles of Traffic Control Devices

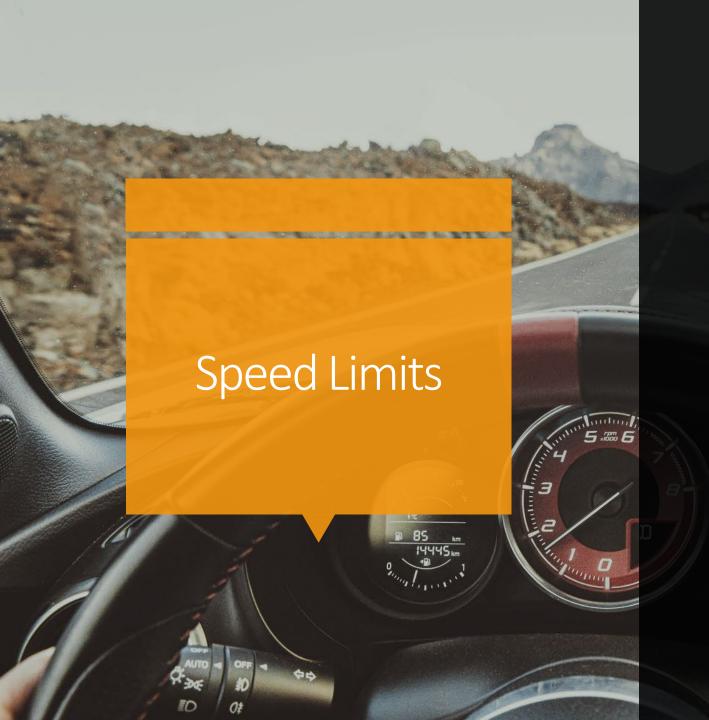
- Guidance:
 - 02 To be effective, a traffic control device should meet five basic requirements:
- A. Fulfill a need;
- B. Command attention;
- C. Convey a clear, simple meaning;
- D.Command respect from road users; and
- E. Give adequate time for proper response.



Speed Limits

- The maximum safe driving speed is not necessarily the appropriate speed limit for a roadway.
- If a road is built for higher speeds, drivers will operate at higher speeds.
- It is difficult to control driver behavior with speed limit signs.





Unposted Rural Roads
The statutory speed limit is lesser of:

of 55 MPH

OR

Maximum Safe and Reasonable Speed

Speed Limits

- Factors for Determining a Speed Limit
 - 85th Percentile Speed
 - Crash Patterns
 - Development Density and Type





55 MPH Speed Limit



45 MPH Speed Limit



35 MPH Speed Limit



What Speed Limit?

Warning Signs





What's Missing from this Picture?



How about a "Trucks Entering Highway" Warning Sign?



So, why is it not there?

Directional Signs





Pavement Markings





Pavement markings provide guidance.

Daytime and nighttime visibility



Pavement markings provide information.

Colors

Shapes

Words/Symbols



Pavement markings provide Line instruction.

Line types



- Pavement markings are difficult to maintain.
- Pavement markings can be difficult to see in inclement weather.
- Pavement markings are often less visible to drivers than one would think due to the angle between the markings and the drivers' eye.

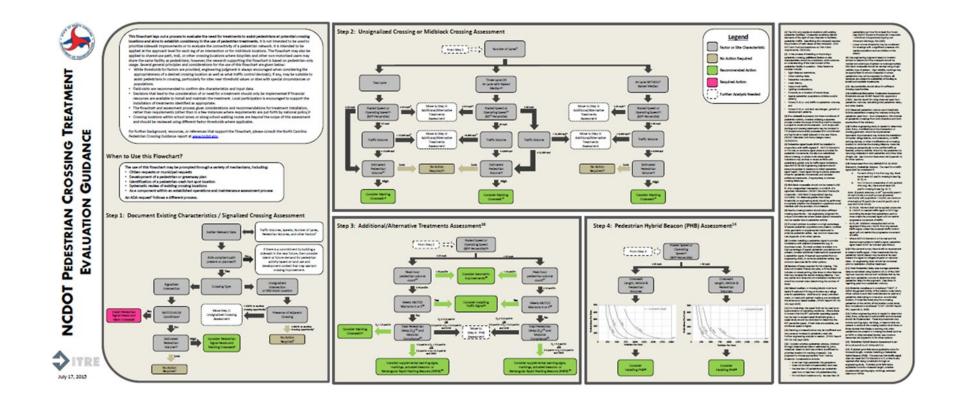
Crosswalks





Direct pedestrians to appropriate locations to cross roadway.

Alert motorists to the possibility of pedestrians in the roadway.



Crosswalks





Crosswalks A Matter of Perspective





Crosswalks A Matter of Perspective