

**North Carolina Department of Transportation  
Division of Highways  
Division of Transportation Mobility and Safety**

**STANDARD PRACTICE  
For  
Passive Highway-Rail Grade Crossing Signing**

The purpose of this standard practice is to establish minimum guidelines used for signing at passive highway-rail grade crossings. Passive traffic control systems identify and direct attention to the location of a highway-rail grade crossing and advise road users to slow down or stop at the crossing as necessary in order to yield to any rail traffic occupying, or approaching and in proximity to, the crossing.

It is the standard practice of the NCDOT to install a STOP (R1-1) or YIELD (R1-2) at all passive highway-rail grade crossings, except where train crews always manually stop road users from entering the crossing.

Signs shall be designed, located and erected according to the standards of the Manual on Uniform Traffic Control Devices (MUTCD), the North Carolina Roadway Standard Drawings, and the standards and criteria herein.

**CRITERIA**

- YIELD (R1-2) signs shall be the default installation along with the Crossbuck (R15-1) sign.
- STOP (R1-1) signs shall be installed along with the Crossbuck (R15-1) sign at crossings where unusual conditions exist and a full stop is deemed necessary by an engineering study. Factors that should be considered during the engineering study are the following:
  - The line of sight from an approaching highway vehicle to an approaching train;
  - The characteristics of the highway, such as the functional classification, geometric conditions, and traffic volumes and speed;
  - The characteristics of the railroad including, but not limited to, the frequency, type, and speed of trains, and the number of tracks;
  - The crash history at the crossing; and,
  - The need for active control devices.
- If criteria within the newest approved edition of the Manual on Uniform Traffic Control Devices are more conservative than the criteria listed in this practice, then that criteria shall supersede the authority of this practice.
- Sign designs shall conform to the attached NCDOT sign typical drawing. Color shall conform to MUTCD standards.

- Yield Ahead (W3-2) or Stop Ahead (W3-1) signs shall be installed at crossings not visible for a sufficient distance to permit road users to respond to traffic control conditions.
- As described in General Statute 136-30 (a), (b), and (d), the NCDOT has the authority to control all signs within the right of way of the State Highway System.

**§ G.S. 136-30. Uniform signs and other traffic control devices on highways, streets, and public vehicular areas.** (a) State Highway System. - The Department of Transportation may number and mark highways in the State highway system. All traffic signs and other traffic control devices placed on a highway in the State highway system must conform to the Uniform Manual. The Department of Transportation shall have the power to control all signs within the right-of-way of highways in the State highway system. The Department of Transportation may erect signs directing persons to roads and places of importance. (b) Municipal Street System. - All traffic signs and other traffic control devices placed on a municipal street system street must conform to the appearance criteria of the Uniform Manual. All traffic control devices placed on a highway that is within the corporate limits of a municipality but is part of the State highway system must be approved by the Department of Transportation. (d) Definition. - As used in this section, the term "Uniform Manual" means the Manual on Uniform Traffic Control Devices for Streets and Highways, published by the United States Department of Transportation, and any supplement to that Manual adopted by the North Carolina Department of Transportation.