Type III Barricade Guidance
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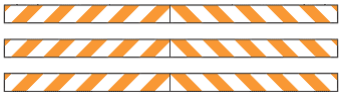


The purpose of this guidance is to provide MDT field crews and Transportation Management Plan (TMP) teams with assistance in the proper use of Type III Barricades.

Traffic control reviews conducted over the past two construction seasons have revealed that the use of Type III Barricades, for the most part, is correct. The two areas needing attention is the direction of the striping and the use of signs in conjunction with the barricades.

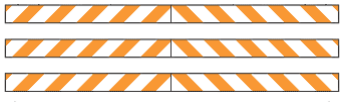
Striping

The 2009 Edition of the Manual on Uniform Traffic Control Devices (MUTCD) discusses Type III Barricades under Section 6F.68. The MUTCD states that Type III Barricades should be used to close or partially close a road. The stripes on barricade rails shall be alternating orange and white retro reflective stripes sloping downward at an angle of 45 degrees in the direction road users are to pass. Barricades used on freeways, expressways, and other high-speed roadways shall have a minimum of 270 square inches of retro reflective area facing road users.

One-Way Turn Barricades: Where barricades extend entirely across a roadway, the stripes should slope downward in the direction toward which road users must turn.

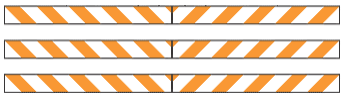
This barricade closure indicates road users must turn left.

Right and Left Turn Barricades: When providing both right and left turns, the barricade stripes should slope downward in both directions from the center of the barricade or barricades.



This barricade closure indicates road users may turn right or left.

No Turn Barricades: Where no turns are intended, the stripes should be positioned to slope downward toward the center of the barricade or barricades.



This barricade closure indicates no turns are intended.

<u>Signs on Barricades</u>

The MUTCD, under Section 6F.03, allows for installation of signs on barricades. Section 6F.03 states that signs mounted on barricades and barricade/sign combinations shall be crashworthy. Signs mounted on Type III barricades should not cover more than 50 percent of the top two rails or 33 percent of the total area of the three rails.

While the MUTCD does not designate crashworthy mounting systems, at least three FHWA Acceptance letters, WZ-40, WZ-44, and WZ-55, provide details for such a mounting system. The list of FHWA Acceptance Letters for Traffic Control Devices can be viewed at http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/listing.cfm?code=workzone. National Highway Cooperative Research Program (NCHRP) Report 553 also discusses mounting signs on barricades.

Most all rails on barricades used on MDT projects are constructed with plastic or some type of lightweight material. This material can fracture on impact and, therefore, can permit the sign panel to release. The panel then has the possibility of striking the windshield of the impacting vehicle. Signs up to 10 square feet must be bolted to the top rail, this would include the ROAD CLOSED and the detour arrow signs. Signs 16 square feet and over must be bolted to the rails and both upright supports. Signs may be mounted on a separate crashworthy support and must be placed behind the barricade.

Signs Mounted Separately Behind Barricades

The most common method of using signs with barricades is to mount the sign on a crashworthy device and place the unit behind the barricade. One advantage of this system is that both the barricade and the manner in which the sign is mounted are both crashworthy. Another advantage is that the barricade does not become top-heavy and tip over in high wind areas. Also, the adjustment of the sign height is easy for use in rural areas and urban and interstate highway areas.

Signs on separate mounting device behind barricades.