

NEW NATIONAL REQUIREMENTS FOR SIGN RETROREFLECTIVITY



“On December 21, 2007, the Department of Transportation, Federal Highway Administration (FHWA) issued Final Regulations governing the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD); Maintaining Traffic Sign Retroreflectivity. This Final Rule is far reaching in effect and applies to most regulatory, warning, street name, and both ground-mounted and overhead guide signs – whether permanent, temporary or portable – on all public roads and private property where the public is invited to travel.”⁽¹⁾

What is Retroreflectivity

Retroreflectivity is the ability of a material to return light to its source. In order for the sign to appear bright to the drivers at night it needs to have a “retroreflective” surface that will allow the light from the headlights to reflect back to the driver’s eyes.

Traffic signs provide important information to drivers at all times, both day and night. The latest revision of the Manual on Uniform Traffic Control Devices (MUTCD) issued by the Federal Highway Administration (FHWA) addresses sign visibility on all public roads and private property where the public is invited to travel.⁽²⁾

The new standard requires that all agencies or officials having jurisdiction over a road must implement a method to maintain traffic signs to a minimum level of retroreflectivity outlined in the MUTCD. The FHWA believes that this proposed change will promote safety while providing sufficient flexibility for agencies to choose a maintenance method that best matches their specific conditions.⁽²⁾

Types of Vinyl

Now is the time to begin the process of compliance. Brandon Industries provides several sign sheeting types that exceed these MUTCD requirements. Our knowledgeable sales staff is ready to help you select the best sign type for your needs.

Sheeting Type (ASTM D4956-04)

Type #	Beaded Sheeting			Prismatic Sheeting			Additional Criteria
	I	II	III	III, IV	VIII	IX	
Name	Engineer Grade EG	Super Engineer Grade SEG	High Intensity HI	High Intensity HI	Super High Intensity Super HI	Very High Intensity VIP	
White on Green	Green ✓ White X	Green ✓ White X	Green ✓ White X	✓	✓	✓	Overhead
Black on Yellow	X	✓	✓	✓	✓	✓	Ground-mounted
White on Red	✓	✓	✓	✓	✓	✓	Contrast Ratio ≥ 3:1
Black on White	✓	✓	✓	✓	✓	✓	
Warranty Life*	N/A	12YRS	10YRS	10YRS	10YRS	12YRS	

* anticipated to meet or exceed MUTCD 2003 compliance requirements

Methods to Maintain Your Signs



Agencies must establish and implement a sign assessment or management method to maintain minimum levels of sign retroreflectivity. Agencies can choose from the following methods or combine them. Provided that an assessment or management method is being used, an agency would be in compliance even if there are some individual signs that do not meet the minimum retroreflectivity levels at a particular point in time.

Assessment Methods

- 1. VISUAL Nighttime Inspection**
The retroreflectivity of an existing sign is assessed by a trained sign inspector conducting a visual inspection from a moving vehicle during nighttime conditions. Signs that are visually identified by the inspector to have retroreflectivity below the minimum levels should be replaced.
- 2. MEASURED Sign Retroreflectivity**
Retroreflectivity is measured using a retroreflectometer. Signs with retroreflectivity below the minimum levels should be replaced.

Management Methods

- 3. Expected Sign Life**
The installation date is labeled or recorded when the signs are installed so that the age of a sign is known. The age of the sign is compared to the expected sign life. The expected sign life is based on the experience of sign retroreflectivity degradation in a geographic area compared to the minimum levels. Signs older than the expected life should be replaced.
- 4. Blanket Replacement**
All signs in an area, or of a given type should be replaced at specified intervals. This method eliminates the need to assess retroreflectivity or track the life of individual signs.
- 5. Control Signs**
Replacement of signs in the field is based on the performance of a sample of control signs. The control signs are monitored to determine the end of retroreflective life for the associated signs.
- 6. Other Methods**
Other methods developed based on engineering studies can be used

Online Information

Federal Highway Administration (FHWA)

www.fhwa.dot.gov/retro

Manual on Uniform Traffic Control Devices (MUTCD)

<http://mutcd.fhwa.dot.gov/>

Sheeting Guide

http://safety.fhwa.dot.gov/roadway_dept/retro/sign/retroresheet_id.htm

American Traffic Safety Services Association (ATSSA)

www.atssa.com/cs/root/retroreflectivity/home

Brandon Industries

www.brandonindustries.com/signage/mutcd

Compliance Dates

- | | |
|---------------------|--|
| January 2012 | Method to maintain retroreflectivity must be in place and in use |
| January 2015 | Regulation, Warning and Ground Mounted Guide Signs in compliance |
| January 2018 | Street Name Signs and Overhead Guide Signs in compliance |

Information in this packet comes from:

- (1) [New National Requirements for Maintaining Traffic Sign Retroreflectivity](#)
– American Traffic Safety Services Association (ATSSA)
- (2) [Maintaining Traffic Sign Retroreflectivity](#) FHWA-SA-07-020
http://safety.fhwa.dot.gov/roadway_dept/retro/sa07020/sa07020.pdf