

Letter from the President

The Federal Highway Administration (FHWA) is on a mission to improve the safety of Americans on the roadways. On January 22nd, 2008, the FHWA finalized regulations in regards to the retroreflectivity of various signs regulated by the Manual on Uniform Traffic Control Devices (MUTCD). These changes have been made to improve the night visibility of signs.

There is a timetable in which these regulations must be implemented.

- January 22nd, 2008 – FHWA issues Final Regulations (The clock begins.)
- January 22nd, 2012 – Implement and use an assessment or management method to maintain traffic sign retroreflectivity at or above the established minimum levels. There is only two years to go and this is a time consuming project. (4 years from day one.)
- January 22nd, 2015 – Replace regulatory, warning, and ground-mounted guide signs (excluding street name) that are identified as failing to meet the established minimum levels for the assessment or management method you have chosen. (7 years from day one)
- January 22nd, 2018 – Replace street name signs and overhead guide signs that are identified as failing to meet the established minimum levels using the assessment or management method you have chosen. (10 years from day one.)

Sheeting Requirements are as follows:

New MUTCD Table 2A-3. Minimum Maintained Retroreflectivity Levels ⑥					
SIGN COLOR	SHEETING TYPE (ASTM D4956-04)				ADDITIONAL CRITERIA
	Beaded Sheeting			Prismatic Sheeting	
	I	II	III	III, IV, VI, VII, VIII, IX, X	
White on Green	W*: G≥7	W*: G≥15	W*: G≥25	W≥250; G≥25	Overhead
	W*: G≥7	W≥120; G≥15			Ground-Mounted
Black on Yellow or Black on Orange	Y*: O*	Y≥50; O≥50			②
	Y*: O*	Y≥75; O≥75			③
White on Red	W≥35; R≥7				④
Black on White	W≥50				—

① The minimum maintained retroreflectivity levels shown in this table are in units of cd/m² measured at an observation angle of 0.2° and an entrance angle of -4.0°
 ② For text and fine symbol signs measuring at least 1200mm (48 in) and for all sizes of bold symbol signs.
 ③ For text and fine symbol signs measuring less than 1200mm (48 in) and for all sizes of bold symbol signs.
 ④ Minimum sign contrast ratio ≥3:1 (white retroreflectivity + red reflectivity).
 * This sheeting type should not be used for this color for this application.

- Overhead Guide Signs (white) must be Prismatic
- Ground Mounted Street Name Signs (white) cannot be EG (Type I)
- Warning Signs (Yellow &/or Orange) cannot be EG (Type I)
- Regulatory Signs (Black on White), white ≥ 50 candle power (EG initial values are 70 and deteriorate rapidly, life of EG signs will be short)
- Minimum Sign Contrast Ratio ≥ 3:1 for Stop Signs (white refl. + red refl.)
(A lot of older stop signs will be noncompliant due to ink fading)

To accomplish these goals will require an inventory of ALL signs. This inventory, to be complete, would include:

1. Location
2. Sign Type
3. Sheeting Type
4. Sign Direction (North, South, etc.)
5. Sign Height
6. Sign Reflectivity

Absent such a complete inventory procedure, the locality will be forced to use methods 1, 2 or 4. The first two methods involve a visit to each and every sign each year and method 4 requires a systematic sign replacement program. Much will depend on the initial inventory, as meeting the legal standards by the due dates will be most important. The extent to which existing signs do not meet the new sheeting requirement or fail to meet the minimum requirements for retroreflectivity or contrast, the maintenance schedule will differ.

The FHWA provides five "Assessment or Management Methods" for agencies to implement a retroreflectivity sign management program. These are:

- 1) **Visual Nighttime Inspection Method:** A trained sign inspector travels in a moving vehicle at night once a year, to inspect each and every sign's retroreflectivity. Not 100% reliable.
- 2) **Measured Retroreflectivity Method:** In this method, the retroreflectivity of a sign is measured with a retroreflectometer and directly compared to the minimum level appropriate to that sign. A sign needs to be replaced if the average retroreflectivity value is less than the appropriate minimum level. Although, it is an annual process and a rather large commitment, this process is extremely accurate.
- 3) **Expected Sign Life Method:** In this method, individual signs are replaced before they reach the end of their expected service life. To do this, an agency will need to know the expected service life required for the retroreflective material to degrade to the minimum retroreflective levels, and will need to create method or can use a preexisting asset management system of identifying the age of individual signs.
- 4) **Blanket Replacement Method:** In this method, an agency replaces all the signs in a area/corridor, or of a given type, at specified intervals. An agency that uses this method does not need to track the age or assess the retroreflectivity of individual signs; however you may replace good signs that do not need to be replaced.
- 5) **Control Sign Method:** In this method, a control sample of signs used to represent the total population of an agency's signs. The retroreflectivity of the control sign is monitored at appropriate intervals and sign replacement is based on a performance of the control signs. While it may be less costly and time consuming, you must create a control environment with one of each sign facing each direction that the signs are facing in the field.

A handwritten signature in black ink, appearing to be a stylized name or set of initials, located at the bottom left of the page.