



IT'S ALL ABOUT SAFETY

Safe and efficient highways are a benefit to the motoring public and to the health and viability of a community.

Providing retroreflective signing is important for reducing the higher nighttime crash rates. Signs that have sufficient retroreflectivity during nighttime conditions are especially beneficial to older road users.

MORE INFORMATION

Additional information regarding nighttime visibility can be found at:

www.fhwa.dot.gov/retro

This web site includes:

- Regulations/Standards
- Technical Guidance
- Implementation Tools
- Frequently Asked Questions
- Funding Assistance
- Research

SIGN RETROREFLECTIVITY REQUIREMENTS

An Overview

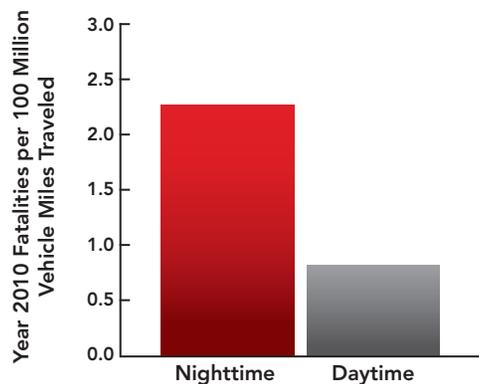


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NIGHT TRAVEL AND CRASHES

One of the Federal Highway Administration's (FHWA) primary missions is to improve safety on the Nation's roadways. Approximately 40,000 people have been killed on American roads during each of the past 10 years. While only one-quarter of all travel occurs at night, about half of the traffic fatalities occur during nighttime hours. To address this disparity, FHWA has established traffic sign retroreflectivity standards.



Source: NHTSA Traffic Safety Facts (2010)

Nighttime visibility of traffic control devices is becoming increasingly important as our population ages. By the year 2020, about one-fifth of the U.S. population will be 65 years of age or older. In general, older individuals have declining vision and slower reaction times. Signs that are easier to see and read at night can help older drivers retain their freedom of mobility and remain independent.



Retroreflective sheeting degrades over time. Signs must be periodically assessed or systematically managed to comply with minimum retroreflectivity levels.

NATIONAL STANDARDS

The *Manual on Uniform Traffic Control Devices* (MUTCD) is the national standard for all traffic control devices (such as signs, signals, and markings) on any street or highway open to public travel. The MUTCD can be accessed at the following web page: <http://mutcd.fhwa.dot.gov/>.

The MUTCD standard requires signs to be either illuminated or made with retroreflective sheeting materials. Most signs in the United States are made with retroreflective sheeting materials, which degrade over time and therefore have a limited useful life.

The MUTCD also includes a standard requiring agencies to use an assessment or management method that is designed to maintain sign retroreflectivity at or above certain levels.



Collection of example calibration signs

Comparison panel on warning sign

FLEXIBILITY

The MUTCD retroreflectivity standard not only promotes safety for the motoring public but also provides flexibility for agencies to choose a maintenance method (or methods) that best fits their specific conditions.

Contrary to initial impressions, the minimum retroreflectivity language does not require that agencies measure every sign. Rather, MUTCD Section 2A.08 describes numerous methods that agencies can use to maintain traffic sign retroreflectivity. One method, a combination of methods, or a method based upon an engineering study tied to the minimum levels in MUTCD Table 2A-3 may be used.



Agencies have until June 14, 2014 to establish and implement a sign assessment or management method to maintain minimum levels of retroreflectivity for regulatory and warning signs. Agencies also

are required to incorporate guide signs, including overhead mounted guide signs, into their maintenance method. However, no compliance date is specified for guide signs, so agencies must decide when to incorporate those signs into their methods as resources permit. When signs are found to be below the minimum retroreflectivity levels, they should be replaced, but it is up to each agency to decide when the replacement occurs.

RETROREFLECTIVE SHEETING MATERIALS

When selecting sheeting for new signs, agencies should consider the standard for maintaining signs to a minimum level of retroreflectivity as found in Section 2A.08 of the 2009 Edition of the MUTCD. One important element of this standard is that Engineer Grade sheeting shall not be used for warning signs or for white legend on green backgrounds.

Even though a particular type of sheeting might initially meet the minimum retroreflectivity levels when new, it might quickly degrade to below the minimum retroreflectivity levels. The use of higher performance sheeting, even though it has a higher initial cost, might have a lower life-cycle cost.

The 2011 Traffic Sign Retroreflective Sheeting Identification Guide can be found at: http://safety.fhwa.dot.gov/roadway_dept/night_visib/sign_visib/sheetguide