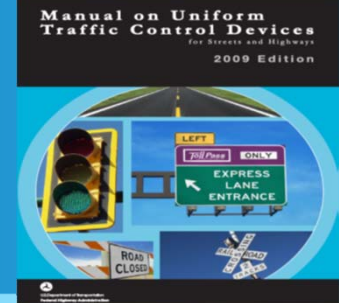


Supplemental Notice of Proposed Amendment: Maintaining Pavement Marking Retroreflectivity

Kyle Armstrong, P.E., PTOE
Acting Engineer of Traffic Operations



Illinois Department of Transportation

<https://safety.fhwa.dot.gov/>

Rule Making Process

- FHWA sends out Notice of Proposed Amendments (NPA) in Federal Register
- Public allowed to submit comments with all comments received made public
- FHWA reviews comments and issues final rule which details final changes

Rule Making Process

- In 1992, Congress directed the Secretary of Transportation to revise the Manual on Uniform Traffic Control Devices to include a standard for minimum levels of retroreflectivity that must be maintained for pavement markings.

Notice of Proposed Amendment

- FHWA previously issued a Notice of Proposed Amendment specific to Maintaining Pavement Marking Retroreflectivity in April 2010
- A Supplemental Notice of Proposed Amendment (SNPA) has now been issued to revise the original notice based on comments received.

Proposed Revisions

- MUTCD Section 3A.03
 - Maintaining Minimum Retroreflectivity
- Introduction – compliance date (Table I-2)
- Section 1A.11 – Methods Publication



SNPA Proposed Amendment to MUTCD Section 3A.03

Maintaining Minimum Retroreflectivity

...a method designed to maintain retroreflectivity at or above _____ shall be used for longitudinal markings on roadways with statutory or posted speed limits of _____ or greater

SNPA Proposed Amendment to MUTCD Section 3A.03

Minimum Retroreflectivity Values

Use a method designed to maintain retroreflectivity of longitudinal markings at or above:

- **Standard: 50 mcd/m²/lx – Speed Limits 35 mph or greater**
- *Guidance: 100 mcd/m²/lx – Speed Limits 70 mph or greater*

Note: These numbers apply to dry markings per Federal Register notice.

SNPA Proposed Amendment to MUTCD Section 3A.03

Maintaining Minimum Retroreflectivity

- **Except as provided in Paragraph 5, a method designed to maintain retroreflectivity at or above 50 mcd/m²/lux shall be used for longitudinal markings on roadways with statutory or posted speed limits of 35 mph or greater.**
- *Except as provided in Paragraph 5, a method designed to maintain retroreflectivity at or above 100 mcd/m²/lux should be used for longitudinal markings on roadways with statutory or posted speed limits of 70 mph or greater.*

Ref.: Section 3A.03 ¶01 and 02

SNPA Proposed Amendment to MUTCD Section 3A.03

Option (paragraph 5)

Longitudinal Marking Exclusions may include:

- ambient illumination assures that the markings are adequately visible
- roadways that have an ADT of less than 6,000 vehicles per day
- dotted extension lines (Section 3B.08);
- curb markings
- parking space markings; and
- shared-use path markings.

Ref.: Section 3A.03 ¶05



SNPA Proposed Amendment to MUTCD Section 3A.03

Proposed Exclusions:

Non- Longitudinal Markings

- Transverse markings
- Word, symbol, and arrow markings
- Diagonal/chevrons/cross-hatching
- Crosswalk markings
- Stop bars



Ref.: Section 3A.03 ¶106

Comparison: SNPA vs. NPA

Original NPA:

Agencies establish and implement maintenance program within 4 years of final rule

Agencies replace markings identified as being below the required retroreflectivity levels within 6 years of final rule

Transverse markings excluded

SNPA

Agencies establish and implement maintenance program within 4 years of final rule

No longer required

Transverse markings excluded

Comparison: SNPA vs. NPA

Original NPA:

Minimum retroreflectivity levels

Less than 35 mph: None

35-50 mph: 100 mcd for 2-lane with only centerline markings. 50 mcd for all other roads

Greater than 50 mph: 250 mcd for 2-lane with only centerline markings 100 mcd for all other roads

Minimum retroreflectivity levels don't apply if RPMs are present

Minimum retroreflectivity levels don't apply if continuous lighting is present

SNPA

Minimum retroreflectivity levels

Less than 35 mph: None

35 mph and greater: 50 mcd required for all roads

70 mph or greater: 100 mcd recommended for all roads

New minimum retroreflectivity levels still apply if RPMs are present

Minimum retroreflectivity levels don't apply if continuous lighting is present

SNPA Proposed Amendment to MUTCD Section 3A.03 and Section 1A.11

Methods of Compliance

“The method used to maintain retroreflectivity should be one or more of those described in “Methods for Maintaining Pavement Marking Retroreflectivity” (see Section 1A.11) or developed from an engineering study based on the values in Paragraphs 1 and 2.

“Methods for Maintaining Pavement Marking Retroreflectivity”

- Calibrated Pavement Markings – Visual Nighttime Inspection
- Consistent Parameters - Visual Nighttime Inspection
- Measured Retroreflectivity
- Expected Service Life
- Blanket Replacement
- Other Methods
(based on engineering study)



Markings Must Be Maintained



Section 3A.02 does not change:

“Markings that must be visible at night shall be retroreflective unless ambient illumination assures that the markings are adequately visible. All markings on Interstate highways shall be retroreflective.”

SNPA Proposed Amendment to MUTCD Section 3A.03

Special Circumstances

- A. Isolated locations of abnormal degradation
- B. Periods preceding imminent resurfacing or reconstruction
- C. Unanticipated events such as equipment breakdown...
- D. Snow maintenance operations



When such circumstances occur, compliance... is still considered to be achieved if a reasonable course of action is taken to restore such markings in a timely manner.

Ref.: Section 3A.03 ¶107

Summary of Proposed Minimum Values for Longitudinal Markings

	Standard		<i>Guidance</i>
Speed Limit	<35	≥35	≥70
mcd/m ² /lux	n/a	50	100

Exceptions:

- Ambient illumination
- Less than 6,000 ADT
- Dotted extension lines
- Curb markings
- Parking spaces
- Shared-use paths

Rule Making Process

- Supplemental Notice of Proposed Amendment published in *Federal Register* January 4, 2017
- Public comment (120 days – **May 4, 2017**)
- Review comments
- Revisions
- Final Rule



Comments:

- Review & Comment: www.regulations.gov
search: FHWA-2009-0139
- Four documents on the docket:
 - Federal Register Notice
 - Proposed MUTCD text
 - Methods guidance document
 - Economic impact analysis



May 4, 2017 deadline for comments to docket

Questions

