

National Committee on Uniform Traffic Control Devices

17200 West Bell Road No. 1135 * Surprise, Ariz. 85374
Telephone (623) 214-2403 * e-mail: ncutcd@aol.com



ATTACHMENT NO. 16 Markings No. 1

TECHNICAL COMMITTEE:	Markings
TOPIC:	Colored Pavements (Yellow, White, Green, Red, and Purple)
TASK FORCE:	Robert Dingess (Chair), Harry Campbell, Paul Carlson, Richard Deal, Tom Grant, Zoubir Ouadah and Jeff Tidaback
STATUS:	Approved by MTC on January 9, 2014 Distributed as sponsor ballot in Spring 2014 Reviewed by Task Force on June 19, 2014 Approved by MTC on June 26, 2014 Approved by Council on June 28, 2014
ORIGIN OF REQUEST:	FHWA request dated September 7, 2011 that NCUTCD develop recommendations regarding red colored pavement for bus lanes.
AFFECTED PORTIONS OF MUTCD:	Chapter 3G Colored Pavements

Summary:

Agencies are increasingly using colored pavements to supplement traffic control devices and provide additional information to the motoring public. Many of the uses had been ad hoc while some were done under official experimentation requests. FHWA began addressing the issue on April 15, 2011 by releasing the following: MUTCD – Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14).

In September 2011, FHWA also requested that the Markings Technical Committee (MTC) provide recommendations to amend the MUTCD to permit the use of red colored bus lanes. Another separate FHWA request to the MTC suggested that language for the treatment of decorative artwork in crosswalks may be appropriate.

The MTC created a number of task forces to deal with the various issues of colored pavements. On January 11, 2013, the Council approved adding new language re: Aesthetic Treatments within Crosswalks. This created a new Section 3G.02. FHWA then issued Interpretation Letter 3(09)-24(I) – Application of Colored Pavement on August 15, 2013. As a result, the new Section 3G.02 needs to be modified already.

**RESCINDED
JANUARY 2024**
This Recommended
Change to the MUTCD
was rescinded by the
NCUTCD Council on
January 12, 2024.

ored bus lanes task force was also asked to expand its efforts to other colored pavements green (bicycle) and purple (toll). During the task force review, the use of yellow color materials to provide a safety treatment at rail crossings was also evaluated.

At the January 2014 meeting, the task force finalized their recommendations for additional language to Chapter 3G which includes the repeal of Section 3G.02 Aesthetic Treatments within Crosswalks approved in January 2013. New material has also been created for new Sections 3G.02 through 3G.08.

At the June 2014 meeting, Sponsor Comments were reviewed and additional changes were proposed for Chapter 3G. Based on Sponsor Comments and a discussion with the Bicycle Technical Committee, it was evident that there was no consensus regarding the use of green colored pavement for bicycle facilities. As a result, a decision was made to table the advancement of Section 3G.06. FHWA has already developed draft language regarding Section 3G.06. Sometime this Summer, the MTC and BTC will review it and provide informal comments to FHWA by September. The full NCUTCD will have an opportunity to review the material next year.

The NCUTCD Council agreed with the decision to table Section 3G and the remainder of the Chapter was approved with modifications as shown.

Recommended Changes to the MUTCD:

The proposed changes to Section 3G COLORED PAVEMENTS, are shown in the following pages. Additions are indicated by blue underline, ~~deletions~~ are indicated by red single strikethrough. Changes made after Sponsored Comments were received and approved by the NCUTCD Council are highlighted in [yellow].

A general note regarding action taken by the NCUTCD Council in Section 3G.06 is highlighted in [green].

Note: As part of the proposed rulemaking, FHWA anticipates re-organizing certain sections of Part III. It is proposed that Section 3G will become Section 3H in the next edition.

CHAPTER 3G. COLORED PAVEMENTS

RESCINDED
JANUARY 2024
This Recommended
Change to the MUTCD
was rescinded by the
NCUTCD Council on
January 12, 2024.

Section 3G.01 General Standardization of Application

Support:

Colored pavements consist of differently colored road paving materials, such as colored asphalt or concrete, or paint or other marking materials applied to the surface of a road or island to simulate colored pavement.

If non-retroreflective colored pavement, including bricks and other types of patterned surfaces, is used as a purely aesthetic treatment and is not intended to communicate a regulatory, warning, or guidance message to road users, the colored pavement is not considered to be a traffic control device, even if it is located between the lines of a crosswalk.

Standard:

If colored pavement is used within the traveled way, ~~on flush or raised islands, or on shoulders~~ to regulate, warn, ~~or~~ guide or otherwise communicate with traffic or if ~~retroreflective colored pavement~~ retroreflectivity is used, the colored pavement is shall be considered ~~to be~~ a traffic control device and shall be limited to the following colors and applications: specified in this chapter.

- ~~A. Yellow pavement color shall be used only for flush or raised median islands separating traffic flows in opposite directions or for left hand shoulders of roadways of divided highways or one-way streets or ramps.~~
- ~~B. White pavement color shall be used for flush or raised channelizing islands where traffic passes on both sides in the same general direction or for right hand shoulders.~~

~~Colored pavements shall not be used as a traffic control device, unless the device is applicable at all times.~~

Guidance:

Colored pavements used as traffic control devices should be used only where they contrast significantly with adjoining paved areas.

Colored pavement located between crosswalk lines should not use colors or patterns that degrade the contrast of white crosswalk lines, or that might be mistaken by road users as a traffic control application.

Standard:

Patterns that constitute a purely aesthetic treatment for the interior portion of a crosswalk shall be devoid of advertising, pietographs and symbols (as defined in Section 1A.13) and shall not implement elements of retroreflectorization. Aesthetic treatments for the interior portions of crosswalks shall not be of a surface that can confuse vision-impaired pedestrians who rely on tactile treatments or cues for navigation.

Support:

The chromaticity coordinates that define the ranges of acceptable colors to be used in pavement marking applications are found in the Appendix to Subpart F of 23 CFR 655.

~~Section 3G.02 Aesthetic Treatments within Crosswalks~~

~~Support:~~

~~Aesthetic treatments within marked crosswalks are used at some locations.~~

~~Option:~~

~~Aesthetic treatments may be used within the boundaries of the two transverse crosswalk lines as defined in Section 3B.18.~~

~~Standard:~~

**RESCINDED
JANUARY 2024**
This Recommended
Change to the MUTCD
was rescinded by the
NCUTCD Council on
January 12, 2024.

53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94

~~Aesthetic treatments located between the two transverse crosswalk lines shall meet the following requirements:~~

- ~~A. Aesthetic treatments shall not resemble or be considered a traffic control device and shall not change the meaning of the crosswalk.~~
- ~~B. Material used in the aesthetic treatments shall not be retroreflective.~~
- ~~C. Surface material of the aesthetic treatments shall be firm and stable.~~
- ~~D. Advertisements shall not be allowed within the crosswalk.~~
- ~~E. Aesthetic treatments within crosswalks shall not be placed on roadways unless specifically permitted or authorized by the public agency or official having jurisdiction.~~

~~Guidance:~~
~~Aesthetic treatments should not degrade the contrast of the white crosswalk lines.~~
~~To create contrast, a gap of at least one half of the width of the transverse white line should be present between the white line and the aesthetic treatment, such as unmarked pavement or a black contrast line.~~
~~Aesthetic treatments within crosswalks should only be allowed on roads with a speed limit of 30 mph or less.~~

Section 3G.02 Limitations

Standard:
Colored pavement shall be limited to uses only where it supplements other markings as provided in this Manual.

Guidance:
If used, colored pavement should be applied to the defined full width of the lane area in which it is implemented and should be flanked by other pavement markings.

Support:
Blue is not a color for use in pavement applications. Blue is used as a background color in the international symbol of accessibility parking symbol (see Figure 3B-22) and it is also used to supplement lines that establish parking spaces reserved for use only by persons with disabilities. Longitudinal pavement markings, crosswalk markings, pavement marking symbols, and elongated route markers are not considered colored pavements.

Standard:
Colors other than those specified in this Chapter shall not be used for colored pavement as a traffic control device.

Section 3G.03 Materials

Guidance:
If marking materials applied to the roadway surface are used to simulate a colored pavement, consideration should be given to the selection of selecting pavement marking materials and colored lane surfaces that will minimize loss of traction for all road users; (see Paragraph 4 of Section 3A.04 of the 2009 MUTCD).

Option:
Colored pavements may be retroreflective.

Guidance:
Installation of colored pavement to one lane or an area or portion of a multi lane traveled way should not degrade skid resistance values between the colored pavement and general purpose lanes.

**RESCINDED
JANUARY 2024**
This Recommended Change to the MUTCD was rescinded by the NCUTCD Council on January 12, 2024.

Section 3G.04 Yellow Colored Pavement

Standard Guidance:

Yellow colored pavement shall should be limited to:

- A. Flush or raised median islands separating traffic flows in opposite directions.*
- B. Left-hand shoulders of divided highways, and*
- C. Left-hand shoulders of one-way streets or ramps.*
- D. Dynamic envelope at railroad at-grade crossings.*

Option:

~~09 Yellow colored pavement may be installed for the entire length of the corridor roadway or for only a portion or portions of the corridor roadway.~~

Standard:

10 Yellow colored pavement shall not be incorporated into elements of the roadway that function as reversible lanes or two-way left turn lanes. Yellow colored pavement shall not be used on channelizing islands where traffic travels in the same general direction on either both sides.

Support:

11 ~~14 Consideration should be given to ensure that yellow colored pavement aggregate material utilized within the dynamic envelope at railroad at-grade crossings retain high anti-skid properties.~~

Option:

Section 3G.05 White Colored Pavement

Guidance:

01 *If used, white colored pavement should be limited to areas ~~closed to not intended for use by motor vehicle~~ traffic except those vehicles designated for emergency use.*

White colored pavement should be limited to:

- A. Flush or raised channelizing islands where traffic passes on both sides in the same general direction,*
- B. Right-hand shoulders,*
- C. Exit gore areas, and*
- D. Entrance gore areas.*

Option:

02 When used for right-hand shoulders, white colored pavement may be installed for the entire length of the shoulder or for only a portion or portions of the shoulder.

Section 3G.06 Green Colored Pavement for Bicycle Facilities

Placeholder for New Text

Note: Motion was approved to table review of this section while conceptually supporting the FHWA Interim Approval 14 (April 2015). This section was largely borrowed from the FHWA Interim Approval. We look forward to reviewing the draft NPA language in July.

Support:

03 ~~Green colored pavement is used to enhance the conspicuity of locations where bicyclists are expected to operate, and areas where bicyclists and other roadway traffic might have potentially conflicting weaving or crossing movements.~~

Option:

04 ~~Green colored pavement may be used:~~

**RESCINDED
JANUARY 2024**
This Recommended
Change to the MUTCD
was rescinded by the
NCUTCD Council on
January 12, 2024.

143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184

- A. Within bicycle lanes as a supplement to the other pavement markings that are required for the designation of a bicycle lane;
- B. For the entire length of an established bicycle lane (see Section 9C.XX) or for only a portion (or portions) of the bicycle lane;
- C. Extensions of bicycle lanes through intersections;
- D. Extensions of bicycle lanes through areas where motor vehicles enter an exclusive turn lane in which motor vehicles must weave across bicycle traffic in bicycle lanes;
- E. To supplement the word, symbol, and arrow pavement markings in a bicycle lane as a means of enhancing the conspicuity of these markings.

Standard:

05 Green colored pavement shall be limited to:

- A. Bicycle lanes;
- B. Extensions of bicycle lanes through intersections;
- C. Extensions of bicycle lanes through areas where motor vehicles enter an exclusive turn lane in which motor vehicles must weave across bicycle traffic in bicycle lanes;
- D. Counter-flow bicycle lanes;
- E. Buffered bike lanes; and
- F. Shared lane markings.

06 Green colored pavement shall not be incorporated into:

- A. Shared Use Paths
- B. Crosswalks (see Chapter 3C).

07 Green colored pavement shall not be used without the longitudinal line(s) required by Paragraph 2 of Section 9C.04; or instead of the bicycle symbol or pavement word marking illustrated in Figure 9C-3 and required by Item C in Paragraph 6 of Section 3D.01;

Option:

08 If a pair of dotted longitudinal lines is used to extend a bicycle lane across an intersection, driveway (see Section 9X.XX) or a ramp, green colored pavement may be installed between these lines as a supplement to the dotted longitudinal lines.

09 The green colored pavement may be installed for the entire length of the bicycle lane extension or for only a portion (or portions) of the bicycle lane extension. (Fig. Dev.)

Standard:

10 Green colored pavement shall not be used instead of dotted lines used to extend a bicycle lane across an intersection, driveway, or ramp. The pattern of the green colored pavement shall be in a manner that matches the pattern of the dotted lines, thus filling in only the areas that are directly between a pair of dotted line segments.

Option:

11 If a pair of dotted longitudinal lines is used to extend a bicycle lane across the beginning of a turn bay where drivers who desire to turn must cross the bicycle lane when moving out of the through lane in order to turn (see Figures 9X-1, 9X-4, and 9X-5), green colored pavement may be installed between these dotted longitudinal lines as a supplement to the dotted longitudinal lines.

12 The green colored pavement may be installed for the entire length of the bicycle lane extension or for only a portion (or portions) of the bicycle lane extension.

**RESCINDED
JANUARY 2024**
This Recommended Change to the MUTCD was rescinded by the NCUOTCD Council on January 12, 2024.

Standard:

~~Green colored pavement shall not be used instead of dotted lines used to extend a bicycle lane across the beginning of a turn bay. The pattern of the green colored pavement shall be in a manner that matches the pattern of the dotted lines, thus filling in only the areas that are directly between a pair of dotted line segments.~~

~~Guidance:~~

~~14. Appropriate regulatory (see Chapter 9B) or guide signing (see Chapter 9B) should be installed to provide related information to the presence of the colored pavement.~~

Section 3G.07 Red Colored Pavement for Public Transit Systems

Option Support:

01 Red colored pavement may be is used to enhance the conspicuity of locations, station stops or travel lanes in the roadway exclusively reserved for vehicles of public transit systems or multi-modal facilities where public transit is the primary mode. These public transit vehicles include buses, taxis, streetcars, trolleys, light-rail trains, and rapid transit fleets.

Option:

02 Red colored pavement may be used where engineering judgment determines that one or more of the following conditions are expected to result in its application:

A. Increased travel speeds will be expected by the public transport vehicle after an exclusive lane or facility is provided.

B. Reduced overall service time through the corridor will be expected by the public transport vehicle.

C. The implementation of the red colored pavement to an existing general purpose lane in the traveled way will not adversely affect the traffic flow in the remaining general purpose lanes.

D. Decreased rates of illegal parking or occupation of the transit or multi-mode lane or facility will be expected.

Standard:

03 If used, red colored pavement shall be applied only in lanes, areas, or locations where general-purpose traffic is generally prohibited to use, queue, wait, idle, or otherwise occupy the lane area or location where red colored pavement is used.

04 Regulatory signs (see Section 2B.XX) shall be used to establish the allowable use of the lane, area, or location. Regulatory signs shall also be used when it is determined that other vehicles will be allowed to enter the lane to turn or bypass queues.

Guidance:

05 Red colored pavement should be retroreflective to distinguish it from non-retroreflective aesthetic treatments. Red colored pavement should not be used on public transit facilities separated from the roadway or on facilities on an exclusive alignment.

Standard:

06 If colored pavement is used on travel lanes or facilities that allow bicycle use in addition to public transit vehicles, then the color shall be red. Such facilities shall not incorporate elements of green colored pavement.

Guidance:

**RESCINDED
JANUARY 2024**
This Recommended
Change to the MUTCD
was rescinded by the
NCUTCD Council on
January 12, 2024.

Travel lanes used by public transit vehicles and other modes should not use red colored pavement.

Section 3G.08 Purple Colored Pavement for Electronic Toll Collection (ETC) Account-Only Preferential Lanes

233
234
235
236
237
238
239
240
241
242
243

Standard:

06 **Purple colored pavement shall be limited to lanes that approach toll plazas where the lane is restricted to use only with a registered ETC account.**

07 **If used, purple colored pavement shall be flanked by white longitudinal lines that establish the toll lane. Purple solid longitudinal markings (see Section 3E.01) shall not be used to supplement the white longitudinal lines when purple colored pavement is used.**

08 **Where Open Road Tolling (ORT) lanes that are restricted for use only by vehicles with registered ETC accounts bypass a mainline toll plaza on a separate alignment, purple colored pavement shall not be used for these ORT lanes or ORT approaches.**