

eliminates the proposed 10-year phase-in target compliance date, because no new requirements are being imposed.

The FHWA proposed to revise the second STANDARD statement to change the spacing of raised pavement markers substituting for dotted lines to N/4, rather than N/8. The NCUTCD agreed, but the City of Plano, Texas, opposed it, suggesting that the spacing be "no greater than N/4." The FHWA agrees with the City of Plano, because it would be consistent with the first STANDARD statement, and makes this change in this final rule.

158. In Section 3B.15 Transverse Markings, in the first STANDARD statement the FHWA adds "yield lines" and "speed hump" markings to the list of transverse markings required to be white markings.

The FHWA changes the second paragraph of the GUIDANCE statement to a STANDARD statement, which requires that pavement marking letters, numerals, and symbols be installed in accordance with the Pavement Markings chapter of "Standard Highway Signs book"³¹ to be consistent with requirements elsewhere in the MUTCD and to correct an oversight in the 2000 MUTCD.

There were two comments from the NCUTCD and the City of Tucson, Arizona, in support of the changes to Section 3B.15.

159. In Section 3B.16 Stop and Yield Lines, in the second paragraph of the first GUIDANCE statement, the FHWA clarifies that YIELD signs are an exception to the recommendations on the use of stop lines to be consistent with the intended use of yield lines. One traffic engineering consultant suggested that Stop lines should be an OPTION, because wide crosswalk lines work well. This goes beyond the scope of this rulemaking and would need to be addressed in a future rulemaking. The NCUTCD, City of Tucson, Arizona, and The Association of Pedestrian and Bicycle Professionals agreed with changes to this section. The FHWA adopts the text as proposed in the NPA.

The FHWA modifies the OPTION statement to clarify that yield lines may also be placed at locations where vehicles are to yield to pedestrians in

compliance with a YIELD HERE TO PEDESTRIANS (R1-5 or R1-5a) sign to correspond with the addition of this new sign to Chapter 2B Regulatory Signs. There were no comments on this change.

The FHWA revises and adds to the second GUIDANCE statement to enhance pedestrian safety by indicating the recommended placement of yield lines at unsignalized midblock crosswalks. One private citizen suggested that yield lines extend across both directions of travel, from sidewalk to sidewalk, on both sides of the crosswalk so that all motorists are aware of the pedestrian crossing. The FHWA disagrees with this comment because drivers are not approaching the crosswalk from the left side of the centerline, therefore it would not be appropriate to place a yield line all the way across the roadway on both sides of the crosswalk.

The FHWA also adds a new paragraph to the second GUIDANCE statement regarding placement of yield lines at midblock crosswalks. The Florida DOT suggested that "Yield to Pedestrians (R1-5 or R1-5a)" signs be used in the vicinity of transit stops. The FHWA disagrees with this comment because local agencies will likely take the location of transit stops into consideration when determining where midblock crosswalks will be installed.

The Oregon DOT requested that an OPTION be added to allow the use of a stop line with "Stop Here for Pedestrians" signs at crosswalks not controlled by a signal, stop sign, or yield sign. The FHWA disagrees with this comment, because research has not been conducted to determine if driver response and obedience to these signs would be adequate. Research that led to the proposal to add the "Yield Here to Pedestrians" sign and the yield line markings for midblock uncontrolled pedestrian crossings only evaluated driver response to the "Yield Here * * *" sign, and did not evaluate a "Stop Here * * *" sign.³² The FHWA adopts the text as proposed in the NPA.

The FHWA also adds a new figure numbered and titled "Figure 3B-15 Examples of Yield Lines at Unsignalized Midblock Crosswalks" relating to the new text, and rennumbers all of the following figures in the chapter accordingly.

Additionally, the FHWA adds a new SUPPORT statement at the end of the section to emphasize that drivers who yield too close to crosswalks on multi-lane approaches place pedestrians at risk by blocking other drivers' view of pedestrians. There were no comments regarding this change.

160. In Section 3B.17 Crosswalk Markings, the FHWA received several comments from the NCUTCD, Caltrans, the City of Plano, Texas, and traffic engineering consultants regarding proposed changes in the second GUIDANCE statement increasing the upper limit of the range for spacing diagonal or longitudinal crosswalk marking lines from 300 to 600 mm (12 to 24 in) to 300 to 1500 mm (12 to 60 in) and specifying the relationship between marking spacing and line width. The NCUTCD supported the proposed change, and the other comments suggested additional clarification. In response to these comments, the FHWA revises the first GUIDANCE statement to clarify the width of crosswalks (with transverse lines or with diagonal or longitudinal lines) and to indicate that the width is measured as the gap between the inside of the lines. The City of Plano, Texas, requested that options for different crosswalk patterns be included in the MUTCD. This goes beyond the scope of this rulemaking and will have to be addressed in a future rulemaking.

161. In Section 3B.19 Pavement Word and Symbol Markings, the FHWA changes the fourth paragraph of the first GUIDANCE statement to clarify that the longitudinal space between word or symbol message markings does not apply to the two opposing arrows of a two-way left-turn lane marking. This change is in response to a comment from Caltrans requesting clarification.

In addition, the FHWA modifies the third STANDARD statement to allow the use of STOP markings at the ends of aisles in parking lots even though there is no STOP sign. The NCUTCD opposed this additional language, and requested that the language from the 2000 MUTCD be retained until the broader issue of the MUTCD and private property is addressed. The FHWA adopts the changes, as proposed in the NPA, because the MUTCD is applicable to public and private parking lots in a growing number of States, and the change is very important for parking lot safety.

162. In Section 3B.21 Curb Markings, in the first paragraph of the STANDARD statement, the FHWA clarifies that the requirement for signs to be used with curb markings does not apply if the no parking zone is controlled by statute or

³¹ "Standard Highway Signs," FHWA, 2002 Edition is available for purchase from the U.S. Government Printing Office Bookstore, Superintendent of Documents, Room 118, Federal Building, 1000 Liberty Avenue, Pittsburgh, PA 15222. Internet Web site at <http://bookstore.gpo.gov>. It is also available on the FHWA's Web site at http://mutcd.fhwa.dot.gov/ser-shs_millennium.htm is available for inspection and copying at the FHWA Washington Headquarters and all FHWA Division Offices as prescribed at 49 CFR part 7.

³² "Advance Yield Markings Reduce Motor Vehicle/Pedestrian Conflicts at Multilane Crosswalks with an Uncontrolled Approach," by Van Houten, Malenfant, and Malenfant, and McCusker, 2001. It is available from the Center for Education and Research in Safety, at the following URL: "<http://www.cers-safety.com/advanceyieldmarkings.pdf>."