

also revises notes 8 and 9 (numbered 7 and 8 in 2000 MUTCD) in response to comments from the City of Charlotte, North Carolina, and a private citizen about coordination with railroads. The FHWA believes that additional emphasis is necessary and adds the text "When a highway-rail grade crossing exists within the activity area" to the beginning of notes 8 and 9. The FHWA received comments from the City of Charlotte, North Carolina, and a private citizen objecting to the removal of the term "optional" for the arrow panels in the figure. The FHWA deletes the term optional from the arrow panels in the figure. Although the FHWA modifies the new GUIDANCE statement in Section 6F.56 Arrow Panels on the placement criteria for use of arrow panels which will allow optional use in some conditions, in this Typical Application, the GUIDANCE conditions prevail; *i.e.* high speed, multi-lane highway. The FHWA received comments from the City of Charlotte, North Carolina, and a private citizen indicating that the distances for the RIGHT LANE CLOSED signs in the figure are in error. The FHWA agrees and revises 1500 FT and 450 m to XX FT and XX m.

cc. *Notes for Figure 6H-33:* (Refer to discussion for Figure 6H-32 regarding the new item 3 that the FHWA had proposed to add as a STANDARD.) The FHWA proposed removing item 3 of the GUIDANCE statement (as numbered in the 2000 MUTCD) because it was not applicable to the application depicted. The FHWA received three comments from the NCUTCD, the City of Charlotte, North Carolina, and a private citizen suggesting that the item be retained as a SUPPORT rather than GUIDANCE because it contains useful information suggesting that vehicles, equipment, workers, and their activities be located on one side of the pavement. The FHWA agrees and restores this statement as a SUPPORT.

dd. *Notes for Figure 6H-34:* The FHWA adds a new item to the STANDARD statement that the information from this figure shall also be used when work is being performed in the lane adjacent to the median on a divided highway, and specifies which signs to use for the specific application in this figure. This is a repeat of an item in the STANDARD statement in the notes for Figure 6H-33. The FHWA makes this change to address two comments from the City of Charlotte, North Carolina, and a private citizen suggesting that this STANDARD in Figure 6H-33 is also applicable to Figure 6H-34. The FHWA agrees that this is needed for consistency with

requirements elsewhere in Part 6 and adopts this change in this final rule. The City of Charlotte, North Carolina, and a private citizen suggested that the term "temporary," used to describe an edge line in note 2, be labeled "interim" as temporary markings are to remain in place only two weeks. The FHWA disagrees because Sections 6F.71 Pavement Markings and 6F.72.

Temporary Pavement Markings provide adequate guidance for short and long term markings and there is no term "interim" used to describe markings. Additionally, the FHWA received two comments from the City of Charlotte, North Carolina, and a private citizen indicating that the notes for the crash cushion in the figure are redundant. The FHWA addresses the comments and provides necessary consistency with other sections of the MUTCD by revising the notes and the figure as follows: To maintain consistency with Figure 6H-5, the FHWA revises note 3 (note 2 in the 2000 MUTCD) by deleting the last sentence. The FHWA adds a new STANDARD item 4 to clarify that the ends of the barrier shall be treated in accordance with Section 6F.81 Temporary Traffic Barriers. The FHWA also removes the word (optional) following "crash cushion" in Figure 6H-34 and changes the Section reference from Section 6F.78 to Section 6F.82 Temporary Traffic Barriers. Additionally, the FHWA received comments from the City of Charlotte, North Carolina, and a private citizen stating that the END ROAD WORK sign in the southbound direction should be labeled as optional. The FHWA agrees because the ROAD WORK AHEAD sign is optional in the southbound direction and revises the figure accordingly.

ee. *Notes for Figure 6H-35:* In the NPA, the FHWA proposed modifying item 4 of the GUIDANCE statement to indicate that Shadow Vehicle 2 should be equipped with an arrow panel in a caution mode if on the shoulder. The FHWA received comments from the NCUTCD, the Wisconsin DOT, the City of Charlotte, North Carolina, and a private citizen suggesting that the arrow panel should continue to be used in the arrow mode rather than the caution mode because, for this mobile operation, the distance between Shadow Vehicles 2 and 1 simulates a merging taper. The FHWA agrees and restores the text from the 2000 MUTCD, removing the phrase "in caution mode if on the shoulder" from this final rule. The FHWA also received one comment from Caltrans that an optional truck mounted attenuator should be shown on the work vehicle to enhance road user and worker

safety. The FHWA agrees and adds an optional truck mounted attenuator in the figure in this final rule.

ff. *Notes for Figure 6H-36:* The FHWA revises item 11 of the OPTION statement to clarify that the signs to be used are "Three Lane Reverse Curve" signs, rather than "Triple Lane Shift" signs. The FHWA makes this change because it is needed for consistency and to properly identify the type of sign to be used. The FHWA also received several comments from the NCUTCD, the City of Charlotte, North Carolina, and a private citizen related to the temporary barrier and crash cushion in the figure. Consistent with Figures 6H-5 and 6H-34, the FHWA adds a new STANDARD item 4 to clarify that where installed, the ends of the barrier shall be treated in accordance with Section 6F.81 Temporary Traffic Barriers. The FHWA deletes the parenthetical phrase "(see Section 6F.77 for end treatments)" in item 13 as the new STANDARD item 4 covers this information.

gg. *Notes for Figure 6H-37:* The FHWA received two comments from the City of Charlotte, North Carolina, and a private citizen objecting to the deletion of the label "optional" from the arrow panels. The FHWA modifies the new GUIDANCE statement in Section 6F.56 Arrow Panels on the placement criteria for use of arrow panels which will allow optional use in some conditions. In this Typical Application, however, the GUIDANCE conditions prevail; *i.e.* high speed, multi-lane highway. Accordingly, the FHWA deletes the term "optional" from the arrow panels in the figure.

hh. *Notes for Figure 6H-39:* The FHWA received comments from Caltrans, the City of Charlotte, North Carolina, and a private citizen related to the position and dimensions of the advance sign series in the northbound direction. To clarify the figure and allow flexibility for the practitioner, the FHWA changes the distances on the signs from 1500 FT, ½ MILE, 1 MILE to XX FT, XX MILE and XX MILE. The metric equivalents are also changed accordingly to XX m, XX m and XX km. The FHWA received two comments from the City of Charlotte, North Carolina, and a private citizen objecting to the deletion of the label "optional" from the arrow panels. The FHWA deletes the "optional" label because of the modifications made to the new GUIDANCE statement in Section 6F.56 Arrow Panels on the placement criteria for use of arrow panels which will allow optional use in some conditions. In this Typical Application, however, the GUIDANCE conditions prevail; *i.e.* high speed, multi-lane highway.