

## ATTACHMENT NO. 2

### **National Committee on Uniform Traffic Control Devices TECHNICAL COMMITTEE RECOMMENDATION**

**Approved by NCUTCD Council - June 24, 2005**

**Blue underline and ~~red strikethrough~~ indicate changes to 2003 MUTCD language**

Note to FHWA: The MTC received several sponsor comments that the leader lines in the figures need to be made more visible. The MTC was not able to make these graphic changes at the Buffalo meeting.

### **Markings Technical Committee Sponsor Ballot**

#### ACTION ITEMS:

- NEW LANGUAGE FOR SECTION 3B.17 – CROSSWALK MARKINGS
- NEW SECTION 3G.07 – PEDESTRIAN ISLANDS AND MEDIANS

Attached is proposed language and new figures for adding references about detectable warnings (DW) in the MUTCD. The proposal was developed by the Markings Technical Committee in conjunction with representatives from the Access Board and Accessible Design for the Blind.

The references to DW are proposed to be added to the Manual in response to requests from FHWA and the Access Board. They have seen a notable amount of confusion among many highway agencies regarding the proper use of DW, even where to go to find the proper information. Thus, there is a high level of interest in getting something in the MUTCD. The approach adopted was to reference this information predominantly in proposed Support language, since the actual rulemaking and decisions on DW design, specs, etc is occurring elsewhere. Using Support language and the referencing approach also then did not necessitate the debate about whether or not DW were traffic control devices, and if so, what should their color be, etc. A reference to ADAAG and the Access Board website is also included.

New text is underlined and shown in blue. No text is being deleted. All figures shown in the this ballot are new figures. Existing Figures 3B-15, 16 and 17 are not being changed and are not included here for purposes of brevity.

### **Section 3B.17 Crosswalk Markings**

Support:

Crosswalk markings provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops.

Crosswalk markings also serve to alert road users of a pedestrian crossing point across roadways not controlled by highway traffic signals or STOP signs.

At nonintersection locations, crosswalk markings legally establish the crosswalk.

**Standard:**

**When crosswalk lines are used, they shall consist of solid white lines that mark the crosswalk. They shall be not less than 150 mm (6 in) nor greater than 600 mm (24 in) in width.**

Guidance:

If transverse lines are used to mark a crosswalk, the gap between the lines should not be less than 1.8 m (6 ft). If diagonal or longitudinal lines are used without transverse lines to mark a crosswalk, the crosswalk should be not less than 1.8 m (6 ft) wide.

Crosswalk lines, if used on both sides of the crosswalk, should extend across the full width of pavement or to the edge of the intersecting crosswalk to discourage diagonal walking between crosswalks (see Figures 3B-15 and 3B-16).

[Crosswalk markings should be located so that the curb ramps are within the extension of the crosswalk markings \(see Figure 3B-xx\).](#)

Crosswalks should be marked at all intersections where there is substantial conflict between vehicular and pedestrian movements.

Marked crosswalks also should be provided at other appropriate points of pedestrian concentration, such as at loading islands, midblock pedestrian crossings, or where pedestrians could not otherwise recognize the proper place to cross.

Crosswalk lines should not be used indiscriminately. An engineering study should be performed before they are installed at locations away from highway traffic signals or STOP signs.

Because nonintersection pedestrian crossings are generally unexpected by the road user, warning signs (see Section 2C.41) should be installed and adequate visibility should be provided by parking prohibitions.

Support:

Section 3B.16 contains information regarding placement of stop line markings near crosswalk markings.

[Detectable warning surfaces mark boundaries between pedestrian and vehicular ways where there is no raised curb. They are required by the Americans with Disabilities Act \(ADA\) where curb ramps are constructed at the junction of sidewalks and the roadway, for marked and unmarked crosswalks. The surfaces extend from the back of the curb line 600 mm \(24 inches\) minimum in the pedestrian direction of travel and the full width of the curb ramp, landing or blended transition \(see Figure 3B-xx\). They enable pedestrians who are visually impaired to detect the warning under foot, by use of a long white cane, or by low vision, and to come to a stop before stepping into the roadway. They alert pedestrians who are visually impaired to the presence of hazards in their line of travel, indicating that they should stop and determine the nature of the hazard before proceeding further.](#)

[At the time of the publication of this Manual, ADAAG \(ADA Accessibility Guidelines\) specified that detectable warnings consist of truncated domes having a base diameter of 23 mm \(0.9 inches\) minimum to 36 mm \(1.4 inches\) maximum, a top diameter of 50% of the base diameter minimum to 65% of the base diameter maximum, and a height of 5 mm \(0.2 inches\). Center-to-center spacing of the domes is 41](#)

mm (1.6 inches) minimum and 61 mm (2.4 inches) maximum. Base-to-base spacing of the domes is 16 mm (0.65 inches) minimum, measured between the most adjacent domes on a square grid.

Detectable warning surfaces contrast visually with adjacent walking surfaces, either light-on-dark, or dark-on-light.

The ADA and ABA (Architectural Barriers Act) Accessibility Guidelines for Buildings and Facilities can be obtained from the U.S. Access Board, Washington, D.C., [www.access-board.gov](http://www.access-board.gov).

Option:

For added visibility, the area of the crosswalk may be marked with white diagonal lines at a 45-degree angle to the line of the crosswalk or with white longitudinal lines parallel to traffic flow as shown in Figure 3B-16.

When diagonal or longitudinal lines are used to mark a crosswalk, the transverse crosswalk lines may be omitted. This type of marking may be used at locations where substantial numbers of pedestrians cross without any other traffic control device, at locations where physical conditions are such that added visibility of the crosswalk is desired, or at places where a pedestrian crosswalk might not be expected.

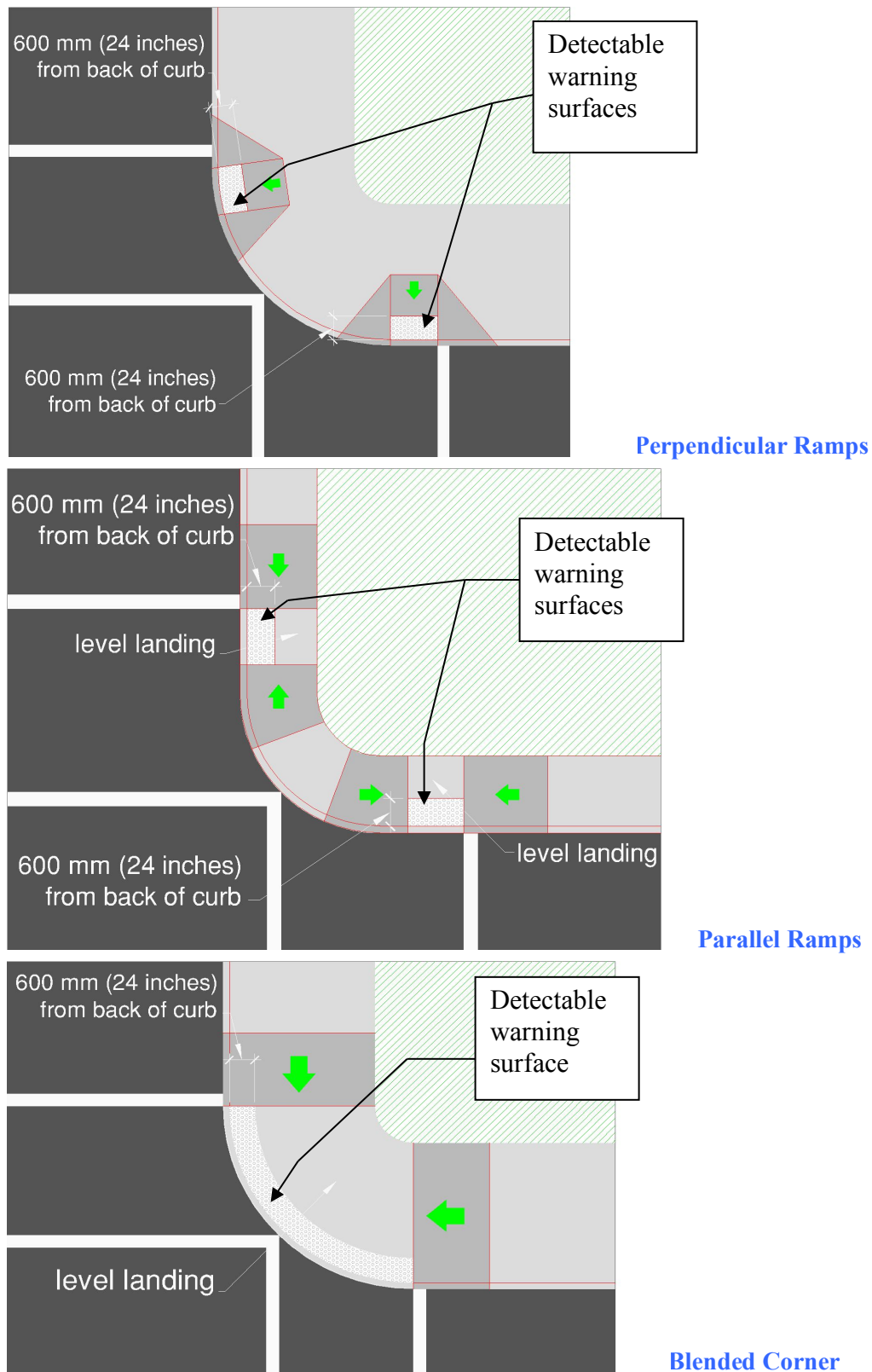
Guidance:

If used, the diagonal or longitudinal lines should be 300 to 600 mm (12 to 24 in) wide and spaced 300 to 1500 mm (12 to 60 in) apart. The marking design should avoid the wheel paths, and the spacing should not exceed 2.5 times the line width.

Option:

When an exclusive pedestrian phase that permits diagonal crossing is provided at a traffic control signal, a marking as shown in Figure 3B-17 may be used for the crosswalk.

Figure 3B-xx: Examples of Detectable Warning Installations at Curb Ramps (Note: new figure)



Section 3G.07 Pedestrian Islands and Medians

Support:

Raised islands or medians placed in the center portion of a street or roadway can serve as a place of refuge for pedestrians who cross a street mid-block or at an intersection location. Center crossing islands allow pedestrians to deal with only one direction of traffic at a time, and they enable them to stop partway across the street and wait for an adequate gap in traffic before crossing the second half of the street. The U.S. Access Board guidelines include minimum widths for refuge islands. Placement of detectable warnings at the back of the curb line on curb ramps (see Section 3B.17) allows placement of the detectable warning behind depressed curbing.

At cut-through islands and medians, detectable warnings can readily be placed even with the face of curb at these locations (see Figure 3G-1). Placement of detectable warnings even with the face of curb on islands and medians increases the separation between detectable warnings on both sides of islands and medians, better defining the area of refuge. More separation also provides a clearer cue for pedestrians who are blind.

Figure 3G-1. Example of Detectable Warnings at Cut-Through Islands

