

Got a question about the millennium edition of the MUTCD?

Tom McDonald, Safety Circuit Rider

If so, you're not alone.

Last fall LTAP Director Duane Smith and I conducted several workshops around the state to introduce the millennium MUTCD to users and clarify some of its new requirements and guidelines. Participants had many questions. Here are some of the most frequently asked questions, along with responses from CTRE staff (all references to the MUTCD indicate the millennium edition):

Is a maximum height for End of Road markers specified?

Section 3C.04 of the MUTCD requires that these devices be mounted at a minimum height of 4 feet but does not specify a maximum height. While recommendations for delineator placement in Section 3D.04 do include a recommended maximum height, no similar requirement or recommendation is given for End of Road markers. Neither does Iowa DOT Road Standard RE-3B stipulate maximum height for these markers.

When deciding how high to mount End of Road markers, exercise your good judgment to provide maximum visibility for the road user, in compliance with Section 1A.04. There may be situations, such as locations on hills or curves, where increased mounting height for these devices is advisable.

Explain the use of Lane Reduction signs, W4-2.

Certain symbol signs have been somewhat controversial for several years because their meaning may not always be readily comprehensible. One of those symbol signs, W4-2, the Lane Reduction sign, was even considered for removal from the millennium edition of the MUTCD. Although the word message sign is thought to be more effective by some practitioners, the symbol sign W4-2 is still the primary sign for lane reduction applications.

Sections 2C.28 and 2C.30 of the new manual mention this sign, but the illustration from comparable sections of the 1988 edition is not shown. However, Figure 3B-12 in Section 3B.09 does illustrate the correct use of W4-2 signs.

Is fluorescent yellow green mandated by the MUTCD in certain applications?

In June 1998, the FHWA published a Final Rule in the Federal Register allowing the optional use of

fluorescent yellow green (FYG) in certain applications related to pedestrians, bicycles, and schools. The millennium MUTCD includes several references to the use of FYG, including Section 1A.12 and Table 2A-4 in Section 2A.11.

While Section 1A.12 seems to indicate FYG shall be used for the applications mentioned above, both Table 2A-4 and Section 2C.37 indicate quite clearly that using FYG is still an option, not a requirement.

However, when installing FYG signs, agencies should adhere to guidance in 2C.37: Do not mix FYG with standard yellow and black warning signs within a particular site.

Explain colors allowed for curb markings.

Section 3B.21 contains a standard requirement that curb markings comply with the general marking colors listed in Section 3A.05. For most two-lane street applications, that color is white.

However, an option in 3B.21 allows local agencies to use special colors on curbs to supplement parking regulation signing. Review this section carefully for other requirements for parking restriction applications. All such regulations should be backed by proper ordinances.

What is the minimum number of channelizing devices for a taper?

The MUTCD does not specify a definite minimum number of channeling devices in a taper. Good practice, however, would suggest that at least five devices would provide adequate visibility for approaching drivers and redundancy if one or more devices are displaced by passing vehicles.

The manual does provide guidance about spacing channeling devices in various taper situations:

Section 6F.55 includes general guidance for determining the number of feet between channelizing devices in a taper: 1.0 times the speed limit.

Section 6C.08 recommends spacing these devices 20 feet apart in shorter tapers (100 feet maximum length), such as those used for flagging or a temporary traffic signal.

For tapers shorter than 100 feet, no spacing guidelines for channelizing devices are given. Illustrations of several typical applications, however, such as TA-10 and TA-11, show five or six devices.

Using fluorescent yellow-green is still an option, not a requirement.

More MUTCD workshops coming

BECAUSE of the wide interest shown in the fall workshops on the millennium edition of the MUTCD (almost 200 people from cities, counties, and consulting firms across the state participated), additional MUTCD workshops will likely be scheduled in 2002. We'll keep you posted.

What is the recommended signing for the new Iowa DOT left-turn storage lane design?

To improve operations and reduce crashes at intersections, the Iowa DOT has developed and implemented a revised design for left-turn storage lanes. The new design provides better angle for road users to observe approaching vehicles. However, signing recommendations for such lanes remain the same.

Iowa DOT staff are monitoring operations at new left-turn storage lanes and, if modifications in sign messages and/or location are appropriate, the department will revise the standard recommendations.

Do Street Name signs, D3, require borders?

The 1997 FHWA requirements that Street Name signs be retroreflective and have larger letters underscore a growing emphasis on the importance of these specific guide signs. Section 3D.38 contains the FHWA standards for retroreflectivity and letter size, as well as many other guidelines and options for Street Name signs.

One of the guidelines addresses colors for Street Name signs—white on green—and states that borders, *if used*, should be the same color as the legend. Although borders may add to Street Sign visibility, this guideline implies that they are not required.

Can AASHTO/Iowa DOT criteria be used for defining the clear zone on local roads?

Several sections of the MUTCD include standards mandating that roadside sign supports located in the clear zone be crashworthy: breakaway, yielding, or shielded. For low-volume roads, this requirement can be found in Section 2A.19 and again in Section 5A.04.

However, while Section 1A.13 provides a general definition for clear zone, nowhere in the MUTCD are specific dimensions given for the clear zone or guidance for computing the dimensions. Applying the Iowa DOT's primary road standards for clear zones would be quite burdensome for local agencies. But both the AASHTO design guides and Iowa DOT standards for local roads contain dimensions for clear zones ranging from 40 feet from the traveled way on farm-to-market roads to 10 feet from the traveled way on collectors and local service roads.

Both Iowa DOT and CTRE staff believe these guidelines for determining clear zones are acceptable for local agencies. Thus, any sign support located outside of clear zones as defined by these guidelines would not need to comply with crash-worthiness requirements. •

New MUTCD means new flagger training

Tom McDonald, Safety Circuit Rider

REVISIONS in the millennium MUTCD regarding work zone traffic control—new equipment and apparel, improved methods, etc.—are affecting the content of flagger training in Iowa.

Specifically, the Iowa DOT's 1997 edition of the Flagger's Handbook has been replaced with an updated 2002 edition, and the department's Professional Flagging video, taped about 10 years ago, is being redone. The video will be completed by late spring.

The handbook and video are part of a training package sponsored by the Iowa DOT and offered by CTRE. By participating in this program, agencies and contractors can meet flagger training requirements in both the MUTCD and Iowa DOT specifications.

How to take advantage of these new resources

Now's the time to schedule updated training for your staff who will be flagging in work zones during the upcoming construction season. CTRE's flagger workshops—both Principles of Flagging and Registered Flagger—will use the new handbook and video to reflect and reinforce the content of the millennium MUTCD.

Workshops can be conducted at your convenience at your agency.

The 2002 Flagger's Handbook will also be distributed to all participants in the Iowa DOT's work zone safety workshops, scheduled to begin in January (see a complete schedule on page 11).

Questions?

Contact Susan Fultz, Iowa DOT, 515-239-1076. To schedule a flagger workshop, contact Tom McDonald, Iowa's Safety Circuit Rider, 515-294-6384, tmcdonal@iastate.edu. •

