

Meeting Agenda
Marking Technical Committee
National Committee on Uniform Traffic Control Devices
January 18-19, 2006 – Arlington, Virginia

Draft agenda as of January 8, 2006

See MTC website at <http://tcd.tamu.edu/documents/tcd-mtc/mtc.htm> for the most recent agenda

Material to bring to meeting and review beforehand if possible:

- Sponsor ballot comments
- NCHRP markings synthesis Chapter 6 (pg 86-93)

- I. Call to order
 - A. Self introductions
 - B. Distribution of attendance rosters (each day)
 - C. Committee membership information
- II. Committee business
 - A. Approval of June 2005 minutes (see MTC website)
 - B. Summary of FHWA-Technical Chairs meeting (Gene Hawkins)
- III. Act on sponsor ballots (see MTC website for sponsor comments)
 - A. Horizontal Signing (Markings No. 1)
 - B. Stop and Yield Lines (Markings No. 2)
- IV. Presentations (scheduled at various times to accommodate speakers' schedules)
 - A. NCHRP synthesis on markings – Bruce Friedman
 - B. Detectable warnings research – James Jenness
 - C. RPM use in Hawaii – Paul Carlson
- V. New Business
 - A.
 - B.
- VI. Review status of MTC task forces
 - A. Appearance of patterned markings – Dave Jones
 - B. Roundabouts (28) – Joe Marcuson (chair), Bemelen, Centa, DuFresne, Jensen, Lambert, Woodin, McCulloch, Rodegerdts, Bared, Windley
 - C. Older Driver – John Bemelen (chair), Hodson, Robinson, Taylor, Thomas, Wilshire
 - D. Rumble Strips – Dan Navone (chair), Dyar, Peil, Sproul, Tidabeck, Jones, Kalchbrenner
 - E. Pvm. Mkg. Taper – Steven Bolt (chair), Aiomloo, Bemelen, Ellison, Hodson, Marcuson
 - F. Ped Acc, Det Wrng (1) – James Ellison (chair), Centa, Jensen, Kalchbrenner, Lambert, Navone, Thomas, Windley, Barlow, LaPlante
 - G. Urban, Prvt Prop (15) – James Ellison (chair), Aiomloo, Bolt, Centa, DuFresne, Dyar, Hockstra, Jensen, Robinson
 - H. White Mkg Lane Change – Neil Hodson (chair), Ellison, Marcuson, Wilshire, Woodin

- I. Delineation (35) – Tim Taylor (chair), Kalchbrenner, Robinson, Thomas, Tidabeck
- J. Min. Reflectivity – Roger Dyar (chair), Centa, Ellison, Hodson, Jensen, Jones, Lambert, Shamay-Petro
- K. Edit Committee – Gene Hawkins (chair), Lambert, Thorson
- L. LT Roundabout Mkg – Ross Airomloo (chair), Jensen
- M. Object Markers – Ross Airomloo (chair), Bolt
- N. End Roadway Hght – Daniel Centa (chair), Dyar
- O. Yield Line (19,20,21) – Duane Thomas (chair)
- P. Horizon. Sign (23,25,26) – Scott Thorson (chair), Jensen, Navone, Peil, Shamay-Petro
- Q. Edge Line Groove – James Ellison (chair), Hawkins
- R. U Turn Arrow – Hans Jensen (chair), Airomloo
- S. Toll Booth Mkgs (5) – Darryl Hockstra (chair), Hodson
- T. Xwalk Patterns (22) – William Lambert (chair), Kalchbrenner
- U. LED String Mkgs – David Jones (chair), Marcuson
- V. Edge Line RPMs – Steven McDonald (chair), McKee
- W. Solid Yellow Line (Ramp) – David Woodin (chair), Bodin
- X. NPZ @ STOP & SG – Scott Thorson (chair), Navone
- Y. Red RPMs – Carlton Robinson (chair), Peil
- Z. Merge Cond Mkg. – Roger Dyar (chair)
- AA. Joint Pedestrian – David Woodin (chair), Centa, Hockstra
- BB. Ped Barrier – William Wilshire (chair), Airomloo, Hockstra, Shamay-Petro, Woodin, Windley, Barlow, Bentzen
- CC. 2 (Not Assigned Yet) –
- DD. 3 – Jay Shamay-Petro (chair)
- EE. 4,9,10,11 – Steven Bolt (chair), Airmoloo, Bemelen, Ellison, Marcuson, Woodin
- FF. 6,7,8 – David Woodin (chair)
- GG. 12,13,14 – James Sproul (chair), Shamay-Petro, Taylor
- HH. 16,17,18 – Jeffrey Tidabeck (chair), Thomas, Thorson
- II. 24 – Wilson (chair)
- JJ. 27 – Steven Bolt (chair)
- KK. 29,30,31 – Jim Kalchbrenner (chair), Jones, Lambert
- LL. 32,33,34 – David McKee (chair), Marcuson, McDonald
- MM. 36 – Darryl Hockstra (chair), Dyar, Jones, McKee, Sproul
- NN. 37,38 – Daniel Centa (chair)
- OO. 39 – Fred Peil (chair), Navone
- PP. Bicycle markings – Bicycles Technical Committee representative
- VII. FHWA MUTCD marking issues – Scott Wainwright (specifics will be identified at the meeting)
- VIII. Other items
 - A. FHWA letters
 - B. FWHA
 - 1. Operations – Scott Wainwright or Hari Kalla
 - 2. Research – Ken Opiela
 - C. Related organizations

1. ASTM
 2. TRB
 3. ATSSA
 4. NTPEP
- IX. Meeting wrap-up
- A. Review minutes of current meeting
 - B. Prepare agenda for next meeting
 - C. Adjourn

JANUARY 2005 MTC MEETING ATTACHMENT
Issues to Be Considered for the 2006/2007 NPA

Part 3

1. The U.S. Access Board has encouraged FHWA and NCUTCD to include the technical specifications for the pattern of truncated domes and the required location of detectable warning surfaces in Part 3. The current ADAAG specification requires color contrast, which could include yellow, white with a dark background, or other colors.
2. NCHRP Synthesis Project 36-06 "Pavement Markings---Design and Typical Layout Details" is anticipated to have a completed report and recommendations by June 2005. This synthesis of State and local policies and practices will likely highlight a variety of markings design issues for which additional uniformity can be provided through inclusion in MUTCD Part 3.

Chapter 3A

3. In Paragraph 3 of Section 3A.03, should "and motorcyclists" be added at the end of the sentence? Loss of traction can present a hazard for motorcyclists.
4. Should Paragraph 3 of Section 3A.05 and the second sentence of Paragraph 12 of Section 3B.05 be changed from Option to Guidance?
5. At toll plazas there may be relatively high-speed non-stop lanes alongside lanes that require a stop at the plaza. Often the toll plaza widens in advance of the plaza and then narrows in the departure area. Channelizing striping is often used for these conditions and it may not necessarily be in use in the way that the MUTCD states as guidance in Section 3A.05. Should uniformity of toll plaza striping be addressed in the next edition of the MUTCD?

Chapter 3B

6. In Section 3B.01, should a single yellow centerline be specifically prohibited? Should a single yellow centerline be permitted for certain applications, and if so, which applications?
7. In Section 3B.01, should UVC provisions (11-301(c)) regarding the legality of crossing a double yellow centerline to make a left turn be stated? (This information used to be in the 1988 MUTCD Section 3A-7 and the lack of this information generates many questions.)
8. In Section 3B.03, should the Option be changed to Guidance, to recommend rather than just allow the use of arrows with 2-way left turn lanes?
9. In Section 3B.05, should the Option paragraph at the bottom of page 3B-11 on lane drop markings be revised to Guidance or Standard? Also, in Figure 3B-10 should the lane drop markings extend all the way to the theoretical gore point rather than changing to a wide solid white line prior to the theoretical gore point, and should the yellow left edge line along the exit ramp start at the theoretical gore point rather than at the physical gore point?
10. In Section 3B.05, should non-freeway lane drops ("trap lanes" approaching intersections) be added to this paragraph, and if so, for what distance in advance of the intersection? (Figure 3B-10 and text at top of page 3B-16 says ½ mile for freeways but this is unrealistic for lower speed urban roads.)
11. In Figure 3B-9 and Section 3B.05, should a "lane drop pattern" be used instead of a broken white lane line to separate the entrance ramp acceleration lane from the mainline freeway right lane, for the full length of the full-width acceleration lane?

12. Should definitions be developed for major driveways and minor driveways so that the meaning of these terms in Section 3B.06 and 3B.08 will not be left up to engineering judgment?
13. In Figure 3B-12 and Section 3B.09, should the use of the Lane Reduction Arrow (item f in Figure 3B-21) be encouraged and illustrated? (This would imply a change in Section 3B.19 also regarding this arrow marking, from an Option to a Guidance.) Also, should the use of the word marking “MERGE” be illustrated along with the arrow as an Option?
14. Should Paragraph 5 of Section 3B.10 be changed from Option to Guidance to be more consistent with Paragraph 3 of Section 3B.09? Also, should paragraphs 7 and 9 of Section 3B.10 be changed to make the use of the diagonal yellow and chevron-shaped white approach markings in the painted islands Guidance rather than Options?
15. Regarding Paragraph 3 of Section 3B.11, should guidance be added for “where” to place blue RPMs (center of road, center of lane, how to indicate which side of road the hydrant is on, etc.).
16. In Section 3B.12, should the use of RPMs as positioning guides (without conveying passing-no passing zone information) be phased out? If a driver from a State where RPMs give no-passing zone information travels to a State where RPMs are only used as positioning guides, this non-uniformity could be a problem.
17. In Section 3B.13, should RPMs be allowed to supplement or substitute for edge line markings on freeways or other facilities where no bikes are allowed on the shoulder?
18. In Paragraph 2 of Section 3B.14, should the color be a Standard and the pattern be Guidance? Also, in Paragraph 6, the phrase “solid lane line markings” should be changed to “solid line markings”. This is because RPMs can substitute for solid centerline markings as well as solid lane line markings.
19. In Paragraph 4 of Section 3B.16, should the use of stop lines at traffic control signals be a Standard rather than Guidance? Should there be a Standard prohibiting the use of stop lines at YIELD signs? Should the use of stop lines at STOP signs be an Option rather than Guidance? For other traffic control devices, such as those at railroad crossings or movable bridges, should the use of a stop line be discussed in those appropriate parts or sections with a cross-reference to Section 3B.16?
20. In Paragraph 6 of Section 3B.16, should text be added to also allow the use of a yield line where a left turn from an uncontrolled approach to an unsignalized intersection is required by the rules of the road to yield to opposing traffic before turning left, even if there is no YIELD sign posted for that movement (due to geometric conditions)?
21. In Paragraph 7 of Section 3B.16, the final sentence states “Stop lines should be placed to allow sufficient sight distance to all other approaches to an intersection.” In urban areas this is often unachievable, particularly when crosswalks are set back from the edge of the intersected road in order to minimize the crossing distance. It is claimed that this sentence causes unnecessary difficulties for local agencies in litigation. Should it be rewritten to eliminate the word “sufficient” and instead concentrate on encouraging placement that maximizes available sight distance within the practicalities of other constraints? Also in this paragraph, changes to the maximum distance of 30 feet may be an NPA item after the Access Board issues final rules re ADAAG for public rights-of-way.
22. In Paragraph 4 of Section 3B.17, Seattle and Washington State DOT extensively use a crosswalk pattern consisting of two 8-inch wide longitudinal lines separated by an 8-inch gap (rather than a 24-inch wide longitudinal bar) and it appears to work well. Should this

- crosswalk pattern be added as an alternate to or substitute for other longitudinal bar patterns?
23. In Section 3B.19, should text be added to more strongly encourage the use of “horizontal signing” to supplement traditional signing for regulatory, warning, and directional information? Also, should the specific exception to the requirement for these markings to be white be stated for the red, white, and blue Interstate shield marking that was authorized by FHWA official interpretation number 3-162(I)?
 24. In Section 3B.19, should the use of turn arrows in separate turning bays be Guidance, at least for certain conditions, instead of only an Option?
 25. In Paragraph 5 of Section 3B.19, should there be an Option of putting the first word last for low speed and bike messages?
 26. In Section 3B.19, it is stated that symbol messages are preferable to word messages. However, the list of markings at the top of page 3B-38 includes almost all word messages. Should symbolic equivalents to some or many of the word messages listed be developed (using existing sign symbols) and illustrated in Chapter 3B?
 27. In Section 3B.21, the Option paragraph allowing local highway agencies to prescribe special colors for curb markings used for parking regulations has resulted in lack of uniformity of curb colors around the country. Should this Option be restricted to “special” parking regulations and should Section 3B.21 include Guidance recommending specific uniform colors for the most commonly used parking prohibitions and restrictions?
 28. In Section 3B.24, should Paragraph 7 be upgraded to Guidance? (Consider in conjunction with development of new Chapter 3H for roundabout markings.)
 29. In Sections 3B.26 and 3B.27, should these sections be rewritten to more clearly state that, if markings are to be used on a speed hump or a speed table, or as advance markings, the only markings that shall be used are those shown in Figure 3B-30 and Figure 3B-31 respectively?
 30. In Figures 3B-3, 3B-4, 3B-6, 3B-7, 3B-12, 3B-13, and 3B-15, should a note that says “See Section 3B.07 for edge line warrants” be added to be consistent with Figures 3B-1 and 3B-2?
 31. Add a separate new figure in Chapter 3B illustrating a wide median T-type intersection with curved end of lane line guiding left turn into the median area.
 32. In Figure 3B-4, should yellow diagonal striping (cross-hatching) be shown in the area between the two sets of double yellow lines to provide a better example of how these markings are usually done?
 33. In Figure 3B-5, the no-passing zones appear to be only 100 feet in length based on the fact that only two segments of broken line are shown. How can this figure be improved to be more accurate?
 34. In Figure 3B-13, show a passing zone (broken yellow line) for traffic that is beyond the obstruction in each direction. The passing zone is to start after the end of the crosshatched area.

Chapter 3D

35. In Section 3D.03, should Guidance be added to recommend that delineators should be used wherever guardrail is present?
36. In Section 3D.04, should text be added to specifically allow “ribbon” (continuous or very close spacing) type delineation along guardrail or barriers?

Chapter 3E

37. In Paragraph 2 of Section 3E.01, should the sentence be changed to say “Colored pavement located between crosswalk lines or within the limits of a bicycle lane to emphasize the presence of the crosswalk or bicycle lane is not considered to be a traffic control device.”?
38. In Paragraph 4 of Section 3E.01, should a list of the colors that might be mistaken for a traffic control application be developed?

Chapter 3F

39. In Section 3F.02, the last paragraph of the Standard should be revised to be consistent with Section 6F.69 (i.e., cones 28-36 inches in height vs. cones more than 36 inches in height.)