What is the Meaning of Uniformity Within the Context of the MUTCD?

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Note: The concepts in this white paper are not fully developed

The national standard for traffic control devices is the Manual on Uniform Traffic Control Devices, which was first published in 1935 and has evolved through ten editions. The word “uniform” has been in the title of each of the ten editions. A critical question in determining the future of the MUTCD is establishing the meaning of uniform as it is used in the title of the document. As indicated in White Paper #1, Section 1A.06 of the 2009 MUTCD states that “Uniformity means treating similar situations in a similar way.” It also states that uniformity in use is as important as uniformity in appearance. As also stated in White Paper #1, the key question is the relationship between the national standard definition of the MUTCD and how that relates to uniformity. This paper takes a closer look at the term uniformity and suggests a potential redefining of the term as it applies to traffic control devices, establishing a difference between uniformity and consistency. To establish a base for the discussion, the following offers definitions for several key terms from a variety of sources.

- Traffic control device:
  - 2009 MUTCD: Traffic control device – a sign, signal, marking, or other device used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, private road open to public travel, pedestrian facility, or shared-use path by authority of a public agency or official having jurisdiction, or, in the case of a private road open to public travel, by authority of the private owner or private official having jurisdiction.
  - NCUTCD Recommendation: Traffic control device – all signs, signals, markings, channelizing devices or other devices that use colors, shapes, symbols, words, sounds and/or tactile information for the primary purpose of communicating a regulatory, warning, or guidance message to road users on a highway, pedestrian facility, bikeway, pathway, or private road open to public travel.

- Manual:
  - Common: a book that is conveniently handled.¹
  - Legal: NEED THIS DEFINITION

- Uniform:
  - Common: adjective: 1) Having always the same form, manner, or degree: not varying or variable; presenting an unvaried appearance of surface, pattern, or color. 2) Consistent in conduct or opinion. 3) Of the same form with others: conforming to one rule or mode, constant. 4) Presenting an unvaried appearance of surface, pattern, or color.²
  - Legal: Conforming to one rule, mode, pattern, or unvarying standard; not different at different times or places; applicable to all places or divisions of a country. Equable; applying alike to all within a class; sameness.³

• 2009 MUTCD: Treating similar situations in a similar way

• Consistent:
  • Common:
  • Legal:

How uniform is defined could have a significant impact on the relationship between various elements of MUTCD content. For example, as suggested in White Paper #1, if the purpose of the MUTCD is to establish national uniformity in the meaning and appearance of traffic control devices, then uniformity would be defined as an unvarying standard from which there can be no deviation. If the MUTCD could then be defined as those aspects of traffic control devices for which no deviation is allowed. This would include meaning, appearance, some aspects of other functions. For example, the order that the colors of a traffic control signal appear (green, yellow, then red) cannot change and should be established as a uniform standard. For those aspects of traffic control devices that are not uniform standards, content could be moved to a supplemental document, where they could be defined as consistent practices. There are many challenges associated with dividing MUTCD content in such a manner, but one critical question is whether a document with consistent practices could include a mandatory practice (standard). This white paper suggests that such is possible. Standard (shall) statements in the uniform standards document would not provide any opportunity for deviation, regardless of the basis used to justify such deviation. As such, Standards that are modified by Guidance or Options would not be included in the uniform standards document. On the other hand, Standard statements that allow some degree of variation or that are only applicable under certain circumstances could continue to be worded as Standards, but would be moved to the consistent practices document. The difficulty in this would be in deciding how to classify each individual statement in the current MUTCD.

Given the information described above, for the purposes of the MUTCD strategic planning effort, the meaning of uniformity within the context of the MUTCD is described below.

Uniformity describes MUTCD criteria that are exact and precise at all times and do not provide the ability to vary depending upon the circumstances in which they are used. Criteria in the 2009 MUTCD that establish minimum and/or maximum thresholds would not meet this new definition. A new concept of traffic control device consistency would be created for criteria that require a higher level of mandate but have an associated range (minimum, maximum, or both) that allows some degree of flexibility within a definable range. At the lowest level would be criteria that allow variation in different aspects.

The following present examples and brief discussion of uniform and consistent content:

• Uniform
  • Meaning – the meaning for a traffic control device must be the same regardless of where it is used. There can be no variation in the meaning of a device.
  • Appearance – certain devices must look the same regardless of where they are used. For example, a Stop sign must have the same appearance no matter where it is used, although there could be variation in size. This means there is a difference between appearance and size.
• Operation – some aspects of operation must be exactly the same regardless of where those devices are used. Examples of such operation include the order of traffic control signal colors and the sequence for highway-railroad grade crossing preemption.

• Consistent
  • Size – the size of a device should be consistent for the conditions in which it is presented. However, size of a given device could vary from one set of conditions to another.
  • Application – the use
  • Operation – DOES CMS DISPLAY ORDER REQUIRE CONSISTENCY

• Variable
  • Operation – the order in which messages are presented on a changeable message sign can vary depending upon the messages and the environment in which they are presented.