

Virginia Work Area Protection Manual

Standards and Guidelines for Temporary Traffic Control

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VIRGINIA WORK AREA PROTECTION MANUAL

STANDARDS AND GUIDELINES

*FOR
TEMPORARY
TRAFFIC CONTROL*

VIRGINIA DEPARTMENT OF TRANSPORTATION
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VIRGINIA WORK AREA PROTECTION MANUAL

INTRODUCTION

Standard:

- 01 **Traffic control devices shall be defined as all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, bikeway, or private road open to public travel (see definition in Section 1A.13 of the Virginia Supplement to the 2009 MUTCD) by authority of a public agency or official having jurisdiction, or, in the case of a private road, by authority of the private owner or private official having jurisdiction.**
- 02 **Part 6 of the “2009 Manual On Uniform Traffic Control Devices (MUTCD)” is reproduced and modified here as a separate publication to meet the special demand for uniform standards for temporary traffic control during construction and maintenance operations on streets and highways in the Commonwealth of Virginia.**
- 03 **The “2009 Manual on Uniform Traffic Control Devices (MUTCD)” is incorporated by reference in 23 Code of Federal Regulations (CFR), Part 655, Subpart F and shall be recognized as the national standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel (see definition in Section 1A.13 of the Virginia Supplement to the 2009 MUTCD) in accordance with 23 U.S.C. 109(d) and 402(a). The policies and procedures of the Federal Highway Administration (FHWA) to obtain basic uniformity of traffic control devices shall be as described in 23 CFR 655, Subpart F.**
- 04 **In accordance with 23 CFR 655.603(a), for the purposes of applicability of the 2009 MUTCD:**
- A. **Toll roads under the jurisdiction of public agencies or authorities or public-private partnerships shall be considered to be public highways;**
 - B. **Private roads open to public travel shall be as defined in Section 1A.13 of the 2009 MUTCD; and**
 - C. **Parking areas, including the driving aisles within those parking areas, that are either publicly or privately owned shall not be considered to be “open to public travel” for purposes of 2009 MUTCD applicability.**
- 05 **Any traffic control device design or application provision contained in this Manual shall be considered to be in the public domain. Traffic control devices contained in this Manual shall not be protected by a patent, trademark, or copyright, except for the Interstate Shield and any items owned by FHWA.**

Support:

- 06 **The need for uniform standards was recognized long ago. The American Association of State Highway Officials (AASHO), now known as the American Association of State Highway and Transportation Officials (AASHTO), published a manual for rural highways in 1927, and the National Conference on Street and Highway Safety (NCSHS) published a manual for urban streets in 1930. In the early years, the necessity for unification of the standards applicable to the different classes of road and street systems was obvious. To meet this need, a joint committee of AASHO and NCSHS developed and published the original edition of this “Manual on Uniform Traffic Control Devices” (MUTCD) in 1935. That committee, now called the National Committee on Uniform Traffic Control Devices (NCUTCD), though changed from time to time in name, organization, and personnel, has been in continuous existence and has contributed to periodic revisions of this Manual. The FHWA has administered the MUTCD since the 1971 edition. The FHWA and its predecessor organizations have participated in the development and publishing of the previous editions. There were nine previous editions of the MUTCD, and several of those editions were revised one or more times. Table I-1 of the 2009 MUTCD traces the evolution of the MUTCD, including the two manuals developed by AASHO and NCSHS.**

Standard:

- 07 **The U.S. Secretary of Transportation, under authority granted by the Highway Safety Act of 1966, decreed that traffic control devices on all streets and highways open to public travel in accordance with 23 U.S.C. 109(d) and 402(a) in each State shall be in substantial conformance with the Standards issued or endorsed by the FHWA.**

Support:

- 08 **The “Uniform Vehicle Code (UVC)” is one of the publications referenced in the 2009 MUTCD. The UVC contains a model set of motor vehicle codes and traffic laws for use throughout the United States.**

Guidance:

- 09 *The States should adopt Section 15-116 of the UVC, which states that, “No person shall install or maintain in any area of private property used by the public any sign, signal, marking, or other device intended to regulate, warn, or guide traffic unless it conforms with the State manual and specifications adopted under Section 15-104.”*

Support:

- 10 The need for standard controls is especially acute during roadway temporary traffic control operations. Abnormal conditions are the rule, and therefore, traffic is particularly dependent on design, placement, and uniformity of traffic control devices to direct and guide it safely and efficiently through what would otherwise be hazardous areas. The constantly shifting and changing nature of work zone activity on or adjacent to the roadway may require frequent readjustments of traffic control devices in order to handle new situations. Thus, the proper and adequate placement of standard highway signs, signals, pavement markings, channelizing devices, and traffic control devices on roadways in work zones is a continuous responsibility of officials having authority and jurisdiction over the particular roadway. This responsibility includes periodic daytime and nighttime inspection of existing devices and conditions throughout the duration of the temporary traffic control operation.
- 11 This Manual is issued to promote a uniform standard of traffic control associated with SPECIAL EVENTS, INCIDENT MANAGEMENT, and WORK AREA PROTECTION along the highways of Virginia. The standards, policies, and objectives contained in this Manual are intended to furnish information and guidance to personnel authorized to do work on the highway right-of-way, and are not intended to establish a legal requirement for installation. Good engineering judgment must be used to arrive at the best traffic controls for a particular worksite, depending on the nature of the activity, location and duration of work, type of roadway, traffic volume and speed, and potential hazard. Thus, while this Manual provides guidelines for design and application of traffic control devices, the Manual is not a substitute for engineering judgment.

Guidance:

- 12 *It should be recognized that it is not feasible to cover every conceivable situation. The objective of this Manual is to illustrate many of the typical worksites and to describe many common conditions encountered. When circumstances occur which are not specifically covered in this Manual, or which require modification of the instructions contained herein, the judgment of the various levels of operating supervisors must be relied upon to meet the basic objectives. When warranted, the appropriate Regional Traffic Engineer should be consulted to select or tailor the proper traffic control devices.*

Support:

- 13 Nothing contained herein is intended to abridge or disclaim the “2009 Manual on Uniform Traffic Control Devices,” but rather to augment and to supplement for the safety of the traveling public.
- 14 The Standard, Guidance, Option, and Support material described in this edition of Part 6 to the 2009 MUTCD provide the transportation professional with the information needed to make appropriate decisions regarding the use of traffic control devices on streets, highways, bikeways, and private roads open to public travel (see definition in Section 1A.13 of the Virginia Supplement to the 2009 MUTCD).
- 15 Throughout this Manual the headings Standard, Guidance, Option, and Support are used to classify the nature of the text that follows. Figures and tables, including the notes contained therein, supplement the text and might constitute a Standard, Guidance, Option, or Support. The user needs to refer to the appropriate text to classify the nature of the figure, table, or note contained therein.

Standard:

- 16 **When used in the 2009 MUTCD, the Virginia Supplement to the 2009 MUTCD, and this Manual, the text headings of Standard, Guidance, Option, and Support shall be as defined below:**
1. **Standard** — a statement of required, mandatory, or specifically prohibitive practice regarding a traffic control device. All standards statements are labeled, and the text appears in bold type. The verb “shall” is typically used. The verbs “should” and “may” are not used in Standard statements. Standard statements are sometimes modified by Options. Section 1A.09 of the Virginia Supplement to the 2009 MUTCD contains additional guidance related to the application of Standard statements.
 2. **Guidance** — a statement of highly recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate. These deviations shall be properly documented when not following guidance

stipulations. All Guidance statements are labeled, and the text appears in italicized type. The verb “should” is typically used. The verbs “shall” and “may” are not used in Guidance statements. Guidance statements are sometimes modified by Options.

3. Option — a statement of practice that is a permissive condition and carries no requirement or recommendation. Option statements sometime contain allowable modifications to a Standard or Guidance statement. All Option statements are labeled, and the text appears in underlined type. The verb “may” is typically used. The verbs “shall” and “should” are not used in Option statements.

4. Support — an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support statements are labeled, and the text appears in normal un-bolded type. The verbs “shall”, “should”, and “may” are not used in Support statements.

Support:

17 The decision to use a particular device at a particular location is typically made on the basis of an engineering study of the location. Thus, while the 2011 WAPM provides standards for design and application of traffic control devices, this Manual is not a substitute for engineering judgment. It is the intent that the provisions of the 2011 WAPM be standards for traffic control devices installation, but not a legal requirement for installation.

Standard:

18 **Whether specified as part of a project’s plan or contract assembly, or performance of a maintenance operation, or performance of utility work within the right of way, the provisions of the 2011 WAPM shall be used for the establishment of temporary traffic control as well as any modification to an approved Traffic Control Plan.**

Support:

19 Definitions of an engineering study and engineering judgment are contained in Section 6A.03.

20 Throughout this Manual all dimensions and distances are provided in English units. Appendix A2 of the 2009 MUTCD contains tables for converting each of the English unit numerical values that are used in this Manual to the equivalent Metric (International System of Units) values.

Guidance:

21 *If Metric units are to be used in laying out distances or determining sizes of devices, such units should be specified on plan drawings and made known to those responsible for designing, installing, or maintaining traffic control devices.*

22 *Except when a specific numeral is required or recommended by the text of a Section of this Manual, numerals displayed on the images of devices in the figures that specify quantities such as times, distances, speed limits, and weights should be regarded as examples only. When installing any of these devices, the numerals should be appropriately altered to fit the specific situation.*

Support:

23 The following information will be useful when reference is being made to a specific portion of text in this Manual.

24 There are nine Parts in the 2009 MUTCD and each Part is comprised of one or more Chapters. This Manual contains Virginia’s version of Part 6 of the 2009 MUTCD and is referred to as the “Virginia Work Area Protection Manual, 2011 Edition.” Each Chapter is comprised of one or more Sections. Parts are given a numerical identification, such as Part 6 – Temporary Traffic Control. Chapters are identified by the Part number and a letter, such as Chapter 6C – Temporary Traffic Control Elements. Sections are identified by the Chapter number and letter followed by a decimal point and a number, such as Section 6C.03 – Components of Temporary Traffic Control Zones.

25 Each Section is comprised of one or more paragraphs. The paragraphs are indented and are identified by a number. Paragraphs are counted from the beginning of each Section without regard to the intervening text headings (Standard, Guidance, Option, or Support). Some paragraphs have lettered or numbered items. As an example of how to cite this Manual, the phrase “When used, a downstream taper on a multi-lane roadway should have a length of approximately 100 feet with devices placed at a spacing of approximately 20 feet.” that appears in Section 6C.09 of this Manual would be referenced in writing as “Section 6C.09, P14” and would be verbally referenced as “Paragraph 14 of Section 6C.09.”

Standard:

- 26 **In accordance with 23 CFR 655.603(b)(3), States or other Federal agencies that have their own MUTCDs or Supplements shall revise these MUTCDs or Supplements to be in substantial conformance with changes to the National MUTCD within 2 years of the effective date of the Final Rule for the changes. Substantial conformance of such State or other Federal agency MUTCDs or Supplements shall be as defined in 23 CFR 655.603(b)(1).**
- 27 **After the effective date of a new edition of the MUTCD or a revision thereto, or after the adoption thereof by the State, whichever occurs later, new or reconstructed devices installed shall be in compliance with the new edition or revision.**
- 28 **In cases involving Federal-aid projects for new highway or bikeway construction or reconstruction, the traffic control devices installed (temporary or permanent) shall be in conformance with the most recent edition of the National MUTCD before that highway is opened or re-opened to the public for unrestricted travel [23 CFR 655.603(d)(2) and (d)(3)].**
- 29 **Unless a particular device is no longer serviceable, non-compliant devices on existing highways and bikeways shall be brought into compliance with the current edition of the National MUTCD as part of the systematic upgrading of substandard traffic control devices (and installation of new required traffic control devices) required pursuant to the Highway Safety Program, 23 U.S.C. §402(a). The FHWA has the authority to establish other target compliance dates for implementation of particular changes to the 2009 MUTCD [23 CFR 655.603(d)(1)]. These target compliance dates established by the FHWA shall be as shown in Table I-2.**
- 30 **Except as provided in Paragraph 30, when a non-compliant traffic control device is being replaced or refurbished because it is damaged, missing, or no longer serviceable for any reason, it shall be replaced with a compliant device.**

Option:

- 31 A damaged, missing, or otherwise non-serviceable device that is non-compliant may be replaced in kind if engineering judgment indicates that:
- A. One compliant device in the midst of a series of adjacent non-compliant devices would be confusing to road users; and/or
 - B. The schedule for replacement of the whole series of non-compliant devices will result in achieving timely compliance with Table I-2 of the 2009 MUTCD.