COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

W. Sheppard Miller, III
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Agenda item # 12

RESOLUTION
OF THE
COMMONWEALTH TRANSPORTATION BOARD

September 17, 2025

MOTION

Made By: Ms. Dunlop**, Seconded By:** Mr. Davis
Action: Motion Carried, Unanimously

Title: Adoption of Virginia Manual on Uniform Traffic Control Devices and Virginia Work Area Protection Manual, Adoption of Regulatory Amendments, and Completion of Periodic Regulatory Review

WHEREAS, pursuant to the resolution titled *Adoption of Manual on Uniform Traffic Control Devices (MUTCD), Virginia Supplement to the MUTCD, and Related Regulatory Consolidation* adopted on December 7, 2011, the Commonwealth Transportation Board (Board) adopted the 2009 national Manual on Uniform Traffic Control Devices (10th edition) as the standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel, as well as the 2011 Virginia Supplement to the 2009 Manual on Uniform Traffic Control Devices, and the 2011 Virginia Work Area Protection Manual, and incorporated those documents into 24VAC30-315, Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways; and

WHEREAS, the Federal Highway Administration (FHWA) adopted the 11th edition of the national Manual on Uniform Traffic Control Devices (national MUTCD) in December 2023, replacing the 10th edition; and

WHEREAS, pursuant to 23 CFR 655.603, the national MUTCD shall be the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel in accordance with 23 U.S.C. 109(d) and 402(a), except that states may adopt a state MUTCD that is in substantial conformance with the national MUTCD, provided that the state adopts its MUTCD within two years of the effective date of the national MUTCD; and

WHEREAS, pursuant to the Virginia Administrative Process Act (APA), particularly in §§ 2.2 4007.1 and 2.2-4017 of the *Code of Virginia*, and Executive Order Number 19, the Board is required to perform a periodic review of each of its regulations at least once every four years, and thus, VDOT posted notice on the Virginia Regulatory Town Hall (Town Hall) on May 13, 2025, informing the public of the Board's intent to conduct such a review of 24VAC30-315; and

WHEREAS, the Virginia Department of Transportation (VDOT) reviewed the national MUTCD and Virginia law; engaged with FHWA, localities, highway contractors, emergency responders, and transportation advocacy groups; and developed a state-specific Virginia Manual on Uniform Traffic Control Devices, which includes an updated Work Area Protection Manual, (Virginia MUTCD), version 11.0; and

WHEREAS, VDOT sought and received confirmation from FHWA that the Virginia MUTCD, version 11.0, is in substantial compliance with the national MUTCD; and

WHEREAS, VDOT has proposed amendments to 24VAC30-315, Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways, to reflect the adoption of the Virginia MUTCD, version 11.0, which shall replace the 2009 Manual on Uniform Traffic Control Devices, 2011 Virginia Supplement to the 2009 Manual on Uniform Traffic Control Devices, and 2011 Virginia Work Area Protection Manual; and

WHEREAS, VDOT has determined that administrative amendments to 24VAC30-325, Urban Maintenance and Construction Policy, which was originally adopted by the CTB, are now needed to remove the references to the outdated national MUTCD and instead reference 24VAC30-315; and

WHEREAS, VDOT has completed an Agency Background Document (Attachment C) to be filed on Town Hall in conjunction with the action to amend these regulations, and has completed the required periodic regulatory review of 24VAC30-315 and proposes that the disposition of the review should be to amend the regulation, as reflected in the Periodic Review Report of Findings document to be filed on Town Hall (Attachment D).

NOW, THEREFORE, BE IT RESOLVED, the Commonwealth Transportation Board hereby adopts the Virginia MUTCD, version 11.0 (Attachment A), and the proposed amendments to 24VAC30-315, Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways, and 24VAC30-325, Urban Maintenance and Construction Policy (Attachment B).

BE IT FURTHER RESOLVED, the Commonwealth Transportation Board requests that the Commissioner of Highways, or his designees, take all necessary actions to effectuate the adoption of these documents and the amendments to 24VAC30-315 and 24VAC30-325 as may

be required under the APA, including posting the associated Agency Background Document (Attachment C) to Town Hall.

BE IT FURTHER RESOLVED, that the Commonwealth Transportation Board approves and adopts the Periodic Review Report of Findings (Attachment D) for 24VAC30-315 with the proposed disposition to amend the regulation, and directs the Commissioner of Highways, or his designees, to take all actions necessary to complete the periodic review.

BE IT FURTHER RESOLVED, that Board approval of this item replaces and supersedes the December 7, 2011, resolution titled *Adoption of Manual on Uniform Traffic Control Devices (MUTCD), Virginia Supplement to the MUTCD, and Related Regulatory Consolidation*, provided however that nothing herein is intended to invalidate any actions previously taken pursuant to that resolution.

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Commonwealth Transportation Board (CTB) Decision Brief

Adoption of Virginia Manual on Uniform Traffic Control Devices and Virginia Work Area Protection Manual, Adoption of Regulatory Amendments, and Completion of Periodic Regulatory Review

Issue: The Federal Highway Administration (FHWA) adopted the 11th edition of the national Manual on Uniform Traffic Control Devices (national MUTCD) in December 2023, replacing the 10th edition. Virginia must adopt the national MUTCD or a state-specific MUTCD that is in substantial compliance with the national MUTCD by January 18, 2026, an action that falls under the authority of the Commonwealth Transportation Board.

Facts: Pursuant to the resolution titled *Adoption of Manual on Uniform Traffic Control Devices (MUTCD), Virginia Supplement to the MUTCD, and Related Regulatory Consolidation* adopted on December 7, 2011, the Commonwealth Transportation Board (Board) adopted the 2009 national Manual on Uniform Traffic Control Devices (10th edition) as the standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel, as well as the 2011 Virginia Supplement to the 2009 Manual on Uniform Traffic Control Devices, and the 2011 Virginia Work Area Protection Manual, and incorporated those documents into 24VAC30-315, Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways.

The Federal Highway Administration (FHWA) adopted the 11th edition of the national Manual on Uniform Traffic Control Devices (national MUTCD) in December 2023, replacing the 10th edition. Pursuant to 23 CFR 655.603, the national MUTCD shall be the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel in accordance with 23 U.S.C. 109(d) and 402(a), except that states may adopt a state MUTCD that is in substantial conformance with the national MUTCD, provided that the state adopts its MUTCD within two years of the effective date of the national MUTCD.

VDOT reviewed the national MUTCD and Virginia law; engaged with FHWA, localities, highway contractors, emergency responders, and transportation advocacy groups; and developed a state-specific Virginia Manual on Uniform Traffic Control Devices, which includes an updated Work Area Protection Manual, (Virginia MUTCD), version 11.0 (Attachment A).

VDOT sought and received confirmation from FHWA that the Virginia MUTCD, version 11.0, is in substantial compliance with the national MUTCD. VDOT has also prepared a summary document outlining the changes in the Virginia MUTCD, including the Work Area Protection Manual, from the prior MUTCD adoption in 2011 (Attachment E).

VDOT has proposed amendments (Attachment B) to 24VAC30-315, Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways, to reflect the adoption of the Virginia MUTCD, version 11.0, which shall replace the 2009 Manual on Uniform Traffic Control Devices, 2011 Virginia Supplement to the 2009 Manual on Uniform Traffic Control Devices, and 2011 Virginia Work Area Protection Manual. VDOT has also proposed amendments to 24VAC30-325, Urban Maintenance and Construction Policy, which was originally adopted by and falls under the purview of the CTB, as well as to 24VAC30-155, Traffic Impact Analysis Regulations, and 24VAC30-630, Rules Governing Person with Disability Traffic Signs, which were adopted by and fall under the purview of the Commissioner of Highways. These amendments are needed to remove references to the outdated national MUTCD and instead reference 24VAC30-315. VDOT has prepared an Agency Background Document (Attachment C) to be posted on Town Hall in conjunction with the action to amend these regulations.

Pursuant to the Virginia Administrative Process Act (APA), particularly in §§ 2.2 4007.1 and 2.2-4017 of the Code of Virginia, and Executive Order Number 19, the Commonwealth Transportation Board (Board) is required to perform a periodic review of each of its regulations at least once every four years, and the Virginia Department of Transportation (VDOT) posted notice on the Virginia Regulatory Town Hall (Town Hall) on May 13, 2025, informing the public of the Board's intent to conduct such a review of 24VAC30-315.

To fulfill the requirements of the Virginia Administrative Process Act and Executive Order Number 19, VDOT completed the required periodic regulatory review of 24VAC30-315 and determined that the disposition of the review should be to amend the regulation. VDOT has prepared a Periodic Review Report of Findings (Attachment D) to support this determination.

Recommendations: VDOT recommends adoption of the Virginia MUTCD, version 11.0, adoption of the proposed amendments to 24VAC30-315 and 24VAC30-325 to reflect the adoption of the Virginia MUTCD, and approval and adoption of the Periodic Review Report of Findings for 24VAC30-315 with the proposed disposition to amend the regulation.

Action Required by CTB: The *Code of Virginia* §33.2-210 requires the majority vote of the CTB to adopt regulations governing the use of highways under its jurisdiction. A resolution will be presented for the Commonwealth Transportation Board to (i) adopt the Virginia MUTCD, version 11.0, and the proposed amendments to 24VAC30-315, Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways, and 24VAC30-325, Urban Maintenance and Construction Policy, (ii) authorize the Commissioner of Highways or his designees to take all actions necessary to effectuate the adoption of the documents and regulatory amendments, and (iii) approve and adopt the Periodic Review Report of Findings for 24VAC30-315 with the proposed disposition to amend the regulation and direct the Commissioner or his designees to complete the periodic review.

Result, if Approved: VDOT staff will take all necessary actions to effectuate the adoption of these documents and the amendments to 24VAC30-315 and 24VAC30-325 as may be required under the Administrative Process Act. VDOT staff will also complete the periodic regulatory review of 24VAC30-315.

Options: Approve, Deny, or Defer

Public Comments/ Reaction: Public comment was solicited by VDOT during the process to develop the Virginia MUTCD. The national MUTCD was posted for public comment on Town Hall in January 2025. Separately, VDOT engaged key internal and external stakeholders, such as consulting engineers, contractors, localities, vendors, emergency responders and interest groups. There were over 450 total attendees between two informational webinars, and more than 2,200 comments were received on the draft Virginia MUTCD content. Comments included feedback on federal and VDOT requirements, suggestions on additional requirements based on practitioner experiences, general questioning, and support of new traffic control device tools. These comments were considered and addressed if appropriate in the final Virginia MUTCD, version 11.0.

Public comment will be received for 30 days upon publication of the action to amend the regulations in the *Virginia Register of Regulations*. Public comment was solicited for 21 days upon publication of the Notice of Periodic Review for 24VAC30-315 in the *Virginia Register of Regulations*, and no public comments were received.

2026 Virginia MUTCD & WAPM

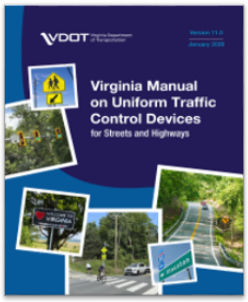
Attachment A – Links to Manuals

Link to the Virginia Manual on Uniform Traffic Control Devices (Virginia MUTCD) version 11.0:

https://www.vdot.virginia.gov/media/vdotvirginiagov/doing-business/technical-guidance-and-support/technical-guidance-documents/traffic-operations/VirginiaMUTCD_acc09022025_RM.pdf

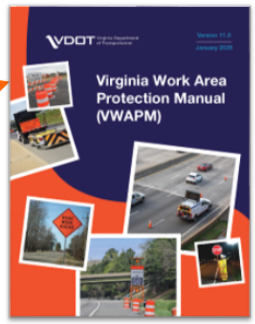
Link to Part 6 of the Virginia MUTCD - Virginia Work Area Protection Manual (VWAPM) version 11.0:

https://www.vdot.virginia.gov/media/vdotvirginiagov/doing-business/technical-guidance-and-support/traffic-operations/work-zones/VWAPM_Final-plusappendices_09102025_RM.pdf



Virginia MUTCD

- Part 1 – General
- Part 2 – Signs
- Part 3 – Markings
- Part 4 – Signs
- Part 5 – Automated Vehicles
- Part 6 – Temporary Traffic Control
- Part 7 – Schools
- Part 8 – Railroad Crossings
- Part 9 – Bicycles



Virginia Work Area Protection Manual (VWAPM)

The Virginia Work Area Protection Manual (VWAPM) serves as Part 6 of the Virginia MUTCD, but is physically published separately for ease of use

Project 8339 - Exempt Final

Department of Transportation

Review of Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways

24VAC30-155-60. VDOT traffic impact statement.

A. A VDOT traffic impact statement (VTIS) assesses the impact of a proposed development on the transportation system and recommends improvements to lessen or negate those impacts. It shall (i) identify any traffic issues associated with access from the site to the existing transportation network, (ii) outline solutions to potential problems, (iii) address the sufficiency of the future transportation network, and (iv) present improvements to be incorporated into the proposed development.

If a VTIS is required, data collection shall be by the locality, developer, or owner, as determined by the locality and the locality shall prepare or have the developer or owner prepare the VTIS. If the locality prepares the VTIS it shall provide a copy of the complete VTIS to the applicant when one is provided to VDOT. The completed VTIS shall be submitted to VDOT.

The data and analysis contained in the VTIS shall be organized and presented in a manner acceptable to VDOT and consistent with this regulation.

B. Scope of work meeting.

1. For proposals that generate less than 1,000 vehicle trips per peak hour of the generator representatives of the locality, the applicant, or the locality and the applicant may request a scope of work meeting with VDOT to discuss the required elements of a VTIS for any project and VDOT shall reply to such request within 30 days of its receipt of such a request and provide a date that is no more than 60 days from such receipt, time and location for such a scope of work meeting to both the locality and the applicant, if applicable.

2. For proposals that generate 1,000 or more vehicle trips per peak hour of the generator representatives of the locality and applicant, if applicable, shall hold a scope of work meeting with VDOT to discuss the required elements of a VTIS. Once a locality or applicant has contacted VDOT regarding the scheduling of a scope of work meeting, VDOT shall reply to both the locality and the applicant, if applicable, within 30 days of such contact and provide a date that is no more than 60

days from such contact, time and location for such a meeting.

At a scope of work meeting pursuant to this section, the locality, the applicant and VDOT shall review the elements, methodology and assumptions to be used in the preparation of the VTIS, and identify any other related local requirements adopted pursuant to law. The results of the initial scoping meeting may be adjusted in accordance with sound professional judgment and the requirements of this regulation if agreed upon by VDOT, the locality, and applicant, if applicable.

C. Required elements. The required elements and scope of a VTIS are dependent upon the scale and potential impact of the specific development proposal being addressed by the VTIS as determined by VDOT in its sole discretion.

1. At a minimum, the VTIS shall include the elements shown in the table below. The site generated peak hour trips in the table below shall be based upon the gross vehicle trip generation of the site less internal capture and mode split reductions, if applicable. When the type of development proposed would indicate significant potential for walking, bike or transit trips either on-site or off-site, the VTIS shall estimate multimodal trips. All distances in the table below shall be measured along roads or streets.

Item	Less than 500	500 to 999	1,000 or more
Background information			
List of all nonexistent transportation improvements assumed in the analysis	Required	Required	Required
Map of site location, description of the parcel, general terrain features, and location within the jurisdiction and region.	Required	Required	Required
Description of geographic scope/ limits of study area.	Within 2,000 feet of site and any roadway on which 50 or more of the new peak hour vehicle trips generated by the proposal are distributed – not to exceed one mile	Within 2,000 feet of site and any roadway on which 10% or more of the new vehicle trips generated by the proposal are distributed – not to exceed two miles	To be determined by VDOT in consultation with the locality
Plan at an engineering scale of the existing and	Required	Required	Required

proposed site uses.				
Description and map or diagram of nearby uses, including parcel zoning.	Required	Required	Required	
Description and map or diagram of existing roadways.	Required	Required	Required	
Description and map or diagram of programmed improvements to roadways, intersections, and other transportation facilities within the study area.	Required	Required	Required	
Analysis of Existing Conditions				
Collected daily and peak hour of the generator traffic volumes, tabulated and presented on diagrams with counts provided in an appendix.	Required	Required	Required	
Analyses for intersections and roadways identified by VDOT. Delay and Level of Service (LOS) are tabulated and LOS is presented on diagrams for each lane group.	Required	Required	Required	
When the type of development proposed would indicate significant potential for walking, bike or transit trips either on - or off - site, analyses of pedestrian and bicycle facilities, and bus route or routes and segment or segments, tabulated and presented on diagrams, if facilities or routes exist	Within 2,000 feet of site	Within 2,000 feet of site	To be determined by VDOT in consultation with the locality	
Speed Study	If requested by VDOT	If requested by VDOT	If requested by VDOT	
Crash history near site	If requested by VDOT	If requested by VDOT	If requested by VDOT	

Sight distance	If requested by VDOT	If requested by VDOT	If requested by VDOT	
Analysis of Future Conditions without Development				
Description of and justification for the method and assumptions used to forecast future traffic volumes.	Required	Required	Required	
Analyses for intersections and roadways as identified by VDOT. Delay and Level of Service (LOS) are tabulated and LOS is presented on diagrams for each lane group.	Required	Required	Required	
When the type of development proposed would indicate significant potential for walking, bike or transit trips either on - or off - site, analyses of pedestrian and bicycle facilities, and bus route or routes and segment or segments tabulated and presented on diagrams, if facilities or routes exist or are planned.	Within 2,000 feet of site	Within 2,000 feet of site	To be determined by VDOT in consultation with the locality at the scope of work meeting	
Trip Generation				
Site trip generation, with tabulated data, broken out by analysis year for multi-phase developments, and including justification for deviations from ITE rates, if appropriate.	Required	Required	Required	
Description and justification of internal capture reductions for mixed use	Required	Required	Required	

developments and pass-by trip reductions, if appropriate, including table of calculations used.			
Site Traffic Distribution and Assignment			
Description of methodology used to distribute trips, with supporting data.	Required	Required	Required
Description of the direction of approach for site generated traffic and diagrams showing the traffic assignment to the road network serving the site for the appropriate time periods.	Required	Required	Required
Analysis of Future Conditions With Development			
Forecast daily and peak hour of the generator traffic volumes on the highway network in the study area, site entrances and internal roadways, tabulated and presented on diagrams.	Future background + site generated traffic, at each expected phase and at build - out or six years after start, whichever is later	Future background + site generated traffic, at each expected phase, at build - out, and six years after build - out, which may be extended or reduced by VDOT in consultation with the locality	At a minimum the future background + site generated traffic, at each expected phase, at build - out, and six years after build - out; may be extended by VDOT in consultation with the locality
Analyses for intersections and roadways identified by VDOT. Delay and Level of Service (LOS) are tabulated and LOS presented on diagrams for each lane group.	Required	Required	Required
When the type of development proposed would indicate significant potential for walking, bike or transit trips either on - or off - site, analyses of	Within 2,000 feet of site	Within 2,000 feet of site	To be determined by VDOT in consultation with the locality

pedestrian and bicycle facilities, and bus route or routes and segment or segments tabulated and presented on diagrams, if facilities or routes exist or are planned.			
Recommended Improvements			
Description and diagram of the location, nature, and extent of proposed improvements, with preliminary cost estimates as available from VDOT.	Required	Required	Required
Description of methodology used to calculate the effects of travel demand management (TDM) measures, if proposed, with supporting data.	Required if TDM proposed	Required if TDM proposed	Required if TDM proposed
Analyses for all proposed and modified intersections in the study area under the forecast and site traffic. Delay, and Level of Service (LOS) are tabulated and LOS presented on diagrams for each lane group. For intersections expected to be signalized, MUTCD Signal Warrant analysis or ITE Manual for Traffic Signal Design, as determined by VDOT, presented in tabular form.	Required	Required	Required
When the type of development proposed would indicate significant potential for walking, bike or transit trips either on - or off -	Within 2,000 feet of site	Within 2,000 feet of site	To be determined by VDOT in consultation with the locality

site, analyses of pedestrian and bicycle facilities, and bus route or routes and segment or segments tabulated and presented on diagrams, if facilities or routes exist or are planned.				
Conclusions				
Clear, concise description of the study findings.	Required	Required	Required	

Notwithstanding the geographic scope noted above, the geographic scope of the study noted above may be reduced or enlarged based upon layout of the local transportation network, the geographical size of the development, and the traffic volume on the existing network, as determined by VDOT in consultation with the locality and the applicant, if applicable. Typically, analysis will be conducted for any roadway on which the additional trips generated by the proposal have a materially detrimental impact on traffic conditions. The analysis presented in the VTIS need not include all roadway and roadway segments located within the geographic scope of the study as determined by VDOT.

2. A VTIS for a development proposal that only meets the low volume road submission criterion (24VAC30-155-40 A 3) shall, at a minimum, consist of the following elements, unless otherwise directed by VDOT.

a. All elements contained in the Background Information portion of the above table, except the geographic scope/limits of study area is limited to the highway fronting the proposed development and the closest intersection, in each direction if applicable, of that highway with a highway that has an average daily traffic volume higher than the fronting highway.

b. A roadway safety inventory study of the roadway segment or segments between the site entrance to the nearest intersections with the higher traffic volume highways, to include such elements as, but not limited to, speed limit, existing warning signs, pavement and shoulder type, pavement and shoulder width, intersection sight distances, and safe horizontal curve speeds.

c. Daily and peak hour traffic volumes presented on diagrams, with counts provided in an appendix, for the fronting highway at the site, at the highway's intersections with the higher volume highway, and for the higher volume highways at their intersection with the fronting

highway.

d. All relevant elements contained in the Trip Generation portion of the above table.

e. Projected daily and peak hour of the generator traffic volumes assuming build-out of the proposal, presented on diagrams for the receiving highway at the site, at the highway's intersection with the higher volume highways, and for the higher volume highways at their intersections with the receiving highway.

f. Delay and level of service analysis for the intersections of the receiving highway with the higher volume highways.

g. A comparison of the existing geometrics of the fronting highway under proposed build-out traffic conditions with the geometric standards, based upon functional classification and volume, contained in the Road Design Manual, 2011 (VDOT).

3. A VTIS for a rezoning proposal may be prepared in accordance with the "Less than 500 Site Generated Peak Hour Trips" category in the table in this section, regardless of actual projected trip generation, provided that:

a. The rezoning proposal is in conformance with a locality's adopted comprehensive plan that was reviewed in accordance with 24VAC30-155-30; and

b. The review of the comprehensive plan included the submission to VDOT of a technical evaluation of the traffic impacts for anticipated development based on the future land use policies and map.

D. Methodology and standard assumptions. A VTIS shall be prepared based upon methodology and assumptions noted below or as may be agreed upon by VDOT based upon the results of a scope of work meeting held by VDOT pursuant to this section.

1. Data collection. Preparers shall collect traffic data in accordance with the identified study area. The count data shall include at a minimum, weekday 24-hour counts, and directional turning movement counts during AM and PM peak times of the day. The 24-hour counts shall include vehicle classification counts. With approval of VDOT, data collected by the transportation professional preparer within the last 24 months may be used, likewise for data from the VDOT count program.

The preparer shall monitor traffic operations during data collection to ensure extraneous events such as vehicle crashes or special event traffic do not affect integrity of count data. Preparers collecting data for utilization in traffic impact studies shall normally avoid data collection during the following instances:

a. Holidays or times of the year when the traffic patterns are deemed to be unrepresentative of typical conditions, unless required by VDOT or the locality, or both.

b. Summer months if school or schools in proximity.

c. Fridays and weekends unless required by VDOT or the locality, or both.

d. Other times of the year contingent upon existing adjacent land use activities.

e. During times of inclement weather.

2. Trip generation. Estimates of trip generation by a proposed development shall be prepared using the Institute of Transportation Engineers Trip Generation, 8th Edition, 2008, unless VDOT agrees to allow the use of alternate trip generation rates based upon alternate published guides or local trip generation studies. VDOT shall at all times after July 1, 2011, have at least one non-ITE trip generation methodology or alternative rate approved for the use in preparation of small area plan traffic impact statements pursuant to 24VAC30-155-30 C that recognizes the benefits of reduced vehicle trip generation and vehicle miles traveled from developments that meet the criteria for a small area plan pursuant to this regulation. Such alternate methodology or rate can be modified based upon local factors if agreed to at a scoping meeting. Rezoning proposals shall assume the highest vehicle trip generating use allowable under the proposed zoning classification. In determining which trip generation process (equation or rate) may be used, the preparer shall follow the guidance presented in the Trip Generation Handbook, Second Edition – an ITE Recommended Practice, 2004, which is summarized here, except rates may be utilized if the criteria for the use of regression equations are not met. Regression equations to calculate trips as a result of development shall be utilized, provided the following is true:

a. Independent variable falls within range of data; and

b. Either the data plot has at least 20 points; or

c. R^2 is greater than 0.75, equation falls within data cluster in plot and standard deviation greater than 110% of weighted average rate.

If the above criteria are not met, then the preparer can use average trip rates, though if the following do not apply a rate based upon the study of similar local sites should be considered:

d. At least three data points exist;

e. Standard deviation less than 110% of weighted average rate; and

f. Weighted average rate falls within data cluster in plot.

3. Internal capture and pass-by trips.

a. Internal capture rates consider site trips "captured" within a mixed use development, recognizing that trips from one land use can access another land use within a development without having to access the adjacent street system. Mixed use developments include a combination of residential and nonresidential uses or a combination of nonresidential uses only. Internal capture allows reduction of site trips from adjacent intersections and roadways. For traffic impact statements prepared for small area plans pursuant to 24VAC30-155-30 C the internal capture rate or rates may be based on the non-ITE trip generation methodology approved by VDOT. For ITE-based methodologies, unless otherwise approved by VDOT, the following internal capture rates should be used if appropriate:

(1) Residential with a mix of nonresidential components - use the smaller of 15% of residential or 15% nonresidential trips generated.

(2) Residential with office use - use the smaller of 5.0% of residential or 5.0% of office trips generated.

(3) Residential with retail use - for AM peak hour, use the smaller of 5.0% residential or 5.0% retail trips generated; for PM peak hour, use the smaller of 10% residential or 10% retail trips generated; for 24-hour traffic, use the smaller of 15% residential or 15% retail trips generated.

(4) Hotel/motel with office use - use 15% of hotel/motel trips, unless the overall volume of the office traffic is more than the overall volume of hotel/motel traffic use in which case use the smaller of 10% of the hotel/motel traffic or the office traffic.

(5) Multiuse development with more than five million square feet of office and retail - internal capture rate should be determined in consultation with and approval of VDOT.

(6) Office with retail use – use the smaller of 5.0% office or retail trips generated.

(7) Some combination of the above, if approved by VDOT.

b. Pass-by trip reductions consider site trips drawn from the existing traffic stream on an adjacent street, recognizing that trips drawn to a site would otherwise already traverse the adjacent street regardless of existence of the site. Pass-by trip reductions allow a percentage reduction in the forecast of trips otherwise added to the adjacent street from the proposed development. The reduction applies only to volumes on adjacent streets, not to ingress or egress volumes at entrances serving the proposed site. Unless otherwise approved by VDOT, the pass-by rates utilized shall be those reported in Trip Generation Handbook, Second Edition – an ITE Recommended Practice, 2004. For traffic impact statements prepared for small area plans pursuant to 24VAC30-155-30 C, the pass-by trip reductions may be based on the non-ITE trip generation methodology approved by VDOT.

4. Trip distribution. In the absence of more detailed information, trip distribution shall be in accordance with logical regional travel patterns as suggested by existing highway directional split and intersection movements or population and destination site distribution and shall recognize the effects of increased street connectivity if such streets meet the requirements of the Secondary Street Acceptance Requirements (24VAC30-92). If more detailed information is available from trip origin/destination studies, marketing studies, or regional planning models, this may be used to distribute trips upon approval of VDOT.

5. Planning horizon. In general, the analysis years shall be related to (i) the opening date of the proposed development, (ii) build-out of major phases of a multiyear development, (iii) long-range transportation plans, and (iv) other significant transportation network changes. The preparer should establish the planning horizon in consultation with and subject to the acceptance of VDOT.

6. Background traffic growth. Unless directed by VDOT, geometric growth (or compound growth), based upon historical growth rates, shall generally be used for determining future background traffic levels where extensive traffic-count history is available and capacity constraint is not appropriate. This growth rate replicates "natural growth" and is typical for projecting urban growth. Natural growth of traffic can be adjusted consistent with traffic forecasts associated with previously submitted local land development projects within the study area.

7. Future conditions. For the purpose of the VTIS, future conditions shall include background traffic and additional vehicle trips anticipated to be generated by approved but not yet constructed or

improved projects.

8. Level of service calculation. Level of service (LOS) analysis for highways shall utilize the techniques described in the Highway Capacity Manual, 2010 (TRB). Neither the intersection capacity utilization method nor the percentile delay method may be used in the traffic impact calculations of delay and level of service. Preparers shall consult with VDOT on which traffic analysis software package is to be used to conduct the LOS calculations. The results shall be tabulated and displayed graphically, with levels of service provided for each lane group for each peak period. All data used in the calculations must be provided along with the results of the capacity analysis. Any assumptions made that deviate from the programmed defaults must be documented and an explanation provided as to why there was a deviation. Electronic files used for the analysis shall be provided to VDOT as a digital submission (e.g..hcs,.sy6,.inp,.trf files), along with the printed report. If intersections analyzed are in close proximity to each other so that queuing may be a factor, VDOT may require the inclusion of an analysis with a micro simulation model. Unless actual on-ground conditions dictate otherwise, preparers should use the following defaults when utilizing the Highway Capacity Software (HCS) or other approved programs when evaluating roadway components:

a. Terrain – choose the appropriate terrain type. Most of the state will be level or rolling, but some areas may qualify for consideration as mountainous.

b. Twelve-foot wide lanes.

c. No parking or bus activity unless field conditions include such parking or bus activity or unless the locality has provided VDOT with a written statement of intent for the services to be provided.

d. Peak hour factor by approach – calculate from collected traffic counts (requires at least a peak hour count in 15-minute increments). However, the use of peak hour factors lower than 0.85 shall only be allowed if based upon the average of more than three peak hour counts. For future conditions analysis, unless specific site conditions can be expected to create extreme peak hour factors, default peak hour factors between 0.92 and 1.00 should be used.

e. Heavy vehicle factor – calculate from collected traffic (classification) counts or obtain from VDOT count publications. For future conditions analysis with development traffic, the existing heavy vehicle factor should be adjusted based upon the nature of the traffic being generated by

the development.

f. Area type – noncenter of business district.

The VTIS shall identify any existing or proposed bicycle and pedestrian accommodation that would be affected by the proposal. For the purposes of this subsection, a bicycle accommodation is defined as on-street bike lanes, paved shoulders of roadways that are not part of the designated traveled way for vehicles, or exclusive and shared off-street bicycle paths.

For the purposes of this subsection, a pedestrian accommodation is defined as sidewalks, intersection treatments and exclusive or shared off-street trails or paths. If significant potential for bicycle or pedestrian trips exists, the VTIS shall include current and future service level analyses at build-out for existing or proposed bicycle and pedestrian accommodations. When the proposal requires or includes improvements or modifications to the roadway, bicycle or pedestrian accommodations, the VTIS shall analyze the impacts of such improvements and modifications on bicycle and pedestrian accommodations and service levels, and provide recommendations for mitigation of adverse impacts.

The VTIS shall provide analysis for all bus service with routes that have, or will have a station or stop within 2,000 feet of the proposal. The VTIS shall evaluate and discuss potential for increased demand for bus use due to the proposal, addressing whether such increases will result in longer dwell time at stops or increase the need for buses on a route. The quality of service analysis for bus service shall be determined in accordance with the Transit Capacity and Quality of Service Manual, 2nd Edition, 2003 (TRB). The VTIS shall provide both route and segment quality of service. The VTIS may consider the benefits of dedicated bus lanes for more frequent and rapid service. The VTIS shall provide recommendations for mitigation of adverse impacts where adverse impacts are expected to the quality of service to bus service. If an analysis of pedestrian quality or level of service is required for calculation of the bus quality of service, the preparer shall use a methodology approved by VDOT.

9. Trip reduction, and pedestrian and bicycle accommodations. When a proposal meets the criteria listed below, the preparer of the VTIS may reduce the number of vehicle trips generated by the proposal in the VTIS analysis in accordance with this subsection. Notwithstanding the percentages below, the total number of reductions used by a preparer in accordance with this subsection shall not exceed 500 vehicle trips per peak hour of the generator unless otherwise approved by VDOT.

The trip reductions for traffic impact statements prepared for small area plans pursuant to 24VAC30-155-30 C may be based on the non-ITE trip generation methodology approved by VDOT and are not subject to limitations or requirements of this subdivision.

a. Pedestrian accommodations. For the purposes of this subsection, a pedestrian accommodation is defined as a sidewalk, pedestrian path, or multiuse trail. Where a pedestrian service level of A exists, vehicle trips per peak hour of the generator may be reduced by 4.0% for those portions of the development within a 2,000-foot radius of the connections between the proposed development and the adjoining network. Where a pedestrian service level of B exists, vehicle trips per peak hour of the generator may be reduced by 3.0%; where a pedestrian service level of C exists, vehicle trips per peak hour of the generator may be reduced by 1.5% for the portion of the development noted above. These reductions may only be taken if:

(1) Pedestrian facility coverage in a 2,000-foot radius of the connections to the proposed development is on or along at least 80% of the road network;

(2) The pedestrian facilities inside and outside the development provide reasonably direct access to traffic generators; and

(3) There are at least two of the 10 major land use classifications, as defined in ITE Trip Generation, 8th Edition, 2008, within the 2,000-foot radius.

b. Bicycle accommodations. For the purposes of this subsection, a bicycle accommodation is defined as a street with a design speed of 25 MPH or less that carries 400 vehicles per day or less, on-street bike lanes, a pedestrian accommodation, paved shoulders of roadways that are not part of the designated traveled way for vehicles and are at least two feet wide, or exclusive and shared off-street bicycle paths. Where a bicycle service level of A exists, vehicle trips per day may be reduced by 3.0%. Where a bicycle service level of B exists, vehicle trips per day may be reduced by 2.0%. Where a bicycle service level of C exists, vehicle trips per day may be reduced by 1.0%. These reductions may only be taken if:

(1) Bicycle accommodations within a 2,000-foot radius of the connections to the proposed development exist on or along at least 80% of the road network;

(2) The bicycle accommodations inside and outside the development provide reasonably direct access to traffic generators; and

(3) There are at least two of the 10 major land use classifications as defined in ITE Trip Generation, 8th Edition, 2008, within the 2,000-foot radius.

10. Modal split and trip reduction. All vehicle trip reductions used in the VTIS pursuant to this subsection are subject to the approval of VDOT.

a. If a proposal is located within 1/2 mile along roadways, pedestrian or bicycle accommodations of a transit station, excluding bus stops and stations, reasonable vehicle trip reductions of vehicle trips generated by the proposal may be made with approval of VDOT. The preparer shall submit documentation to justify any such vehicle trip reductions used with the VTIS. When a proposal is located more than 1/2 mile but less than two miles from a transit stop, excluding bus stops and stations, with bicycle parking accommodations additional bicycle modal split reductions may be utilized. The analysis of capacity of the parking accommodations shall be included in the VTIS when such trip reductions are used.

b. If a proposal is located within 1/4 mile along roadways, pedestrian or bicycle accommodations of a bus stop or station where the segment and route service levels are C or higher, reasonable vehicle trip reductions of vehicle trips generated by the proposal may be made with the approval of VDOT. The preparer shall submit documentation to justify any such vehicle trip reductions used with the VTIS.

c. Transit and bus modal split data from similar developments within the geographic scope of the VTIS or one mile of the proposal, whichever is greater, shall be collected if the VTIS vehicle trip reductions are used pursuant to this subsection and similar developments exist within the geographic scope of the VTIS or one mile of the proposal, whichever is greater.

11. Signal warrant analysis. Traffic signal warrant analysis shall be performed in accordance with the procedures set out in the ~~Manual on Uniform Traffic Control Devices, 2003, revised 2007~~ Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways (24VAC30-315) , or ITE Manual of Traffic Signal Design, 1998, as determined by VDOT.

12. Recommended improvements. Recommendations made in the VTIS for improvements to transportation facilities shall be in accordance with the geometric standards contained within the Road Design Manual , 2011 (VDOT).

Requests for information pertaining to the availability and cost of any of these publications should be directed to the address indicated for the specific document. Requests for documents available from VDOT may be obtained from VDOT's division and representative indicated; however, VDOT documents may be available over the Internet at www.vdot.virginia.gov.

Highway Capacity Manual, 2010, Transportation Research Board, 500 Fifth Street NW, Washington, DC 20001.

ITE Manual of Traffic Signal Design (1998), Institute of Transportation Engineers, 1627 Eye Street, NW, Suite 600, Washington, DC 20006.

~~Manual on Uniform Traffic Control Devices for Streets and Highways, effective 2003, revised 2007, Federal Highway Administration, Superintendent of Documents, U.S. Government Printing Office, P.O. Box 371954, Pittsburgh, Pennsylvania 15250.~~

Road Design Manual, 2011, VDOT, 1401 E. Broad Street, Richmond, Virginia 23219.

Transit Capacity and Quality of Service Manual, 2nd Edition, 2003; Transportation Research Board of the National Academies, Keck Center of the National Academies, Transportation Research Board, 500 Fifth Street, NW, Washington, DC 20001.

Trip Generation, 8th Ed., 2008, Institute of Transportation Engineers, 1627 Eye Street, NW, Suite 600, Washington, DC 20006.

Trip Generation Handbook, Second Edition – an ITE Recommended Practice, 2004, Institute of Transportation Engineers, 1627 Eye Street, NW, Suite 600, Washington, DC 20006.

24VAC30-315-10. General provisions.

A. ~~The Manual on Uniform Traffic Control Devices for Streets and Highways, 2009 Edition (2009 MUTCD), is incorporated by reference in the Code of Federal Regulations (23 CFR Part 655 Subpart F), and is accessible from http://mutcd.fhwa.dot.gov/.~~ 23 CFR 655.603 (December 19, 2023) adopts the National Manual on Uniform Traffic Control Devices for Streets and Highways (National MUTCD) as the national standard for any street, highway, or bicycle trail open to public travel in accordance with the United States Code (23 USC §§ 109 (d) and 402 (a)) and the National MUTCD shall apply to all such locations in Virginia except those specified in subsection B .

B. ~~The 2009 MUTCD dated December 2009 shall be the standard for all highways under the jurisdiction~~

~~of the Virginia Department of Transportation, with the following exceptions: (i) the Virginia Supplement to the 2009 MUTCD (2011 Edition) contains standards and guidance that exceed minimum federal requirements concerning traffic control devices and presents additional pertinent traffic control parameters not addressed by the 2009 MUTCD and (ii) the Virginia Department of Transportation uses the Virginia Work Area Protection Manual (WAPM) (2011 Edition), which is a part of the Virginia Supplement to the 2009 MUTCD (2011 Edition), instead of the 2009 MUTCD Part 6, Temporary Traffic Control.~~ The Virginia Manual on Uniform Traffic Control Devices for Streets and Highways, which includes the Virginia Work Area Protection Manual, (Virginia MUTCD), version 11.0 (2025), shall be the standard for all traffic control devices on streets, highways and bicycle facilities under the jurisdiction of the Virginia Department of Transportation. All signs, signals, pavement markings, and other traffic control devices under the jurisdiction of the Virginia Department of Transportation or on streets, highways and bicycle facilities under the jurisdiction of the Virginia Department of Transportation shall conform accordingly.

C. ~~Where (i) state standards exceed the minimum federal requirements; (ii) the 2009 MUTCD does not cover some design, installation, and operation details; or (iii) additional guidance on traffic control devices is needed, the Commissioner of Highways or a designee is authorized to establish and distribute appropriate documentation including, but not limited to, standards, specifications, and instructional memoranda. The Virginia Supplement to the 2009 MUTCD (2011 Edition) and the WAPM (2011 Edition) shall be applicable for all highways under the jurisdiction of the Virginia Department of Transportation. If there is a conflict between the 2009 MUTCD and the Virginia Supplement to the 2009 MUTCD (2011 Edition), the Virginia Supplement shall govern.~~

~~D. The Commissioner of Highways or a designee is authorized to make revisions to the Virginia Supplement to the MUTCD (2011 Edition) or the WAPM (2011 Edition), or both, to reflect changes to the Code of Virginia or to the 2009 MUTCD as incorporated into the Code of Federal Regulations and to be consistent with the Code of Virginia where discretion is allowed.~~

~~E. In addition to the authority referenced in subsection C of this section, the~~ The Commissioner of Highways is authorized to act for and on behalf of the Commonwealth Transportation Board in matters relating to classifying, designating, ~~regulating,~~ and marking state highways and the installation of signals, signs, and markings to regulate, control, and manage traffic movement.

Documents Incorporated by Reference (24VAC30-315)

Manual on Uniform Traffic Control Devices for Streets and Highways, ~~2009~~ 2023 edition, December

~~2009~~ 2023, U.S. Department of Transportation, Federal Highway Administration, 1200 New Jersey Avenue, S.E., Washington, DC 20590~~, telephone (202) 366-1993~~. The text is also available from the Federal Highway Administration's website at http://mutcd.fhwa.dot.gov ~~and by individual parts and chapters below:~~

~~Cover, Table of Contents, and Introduction~~

~~Part 1 - General~~

~~Part 2 - Signs~~

~~Chapter 2A - General~~

~~Chapter 2B - Regulatory Signs, Barricades, and Gates~~

~~Chapter 2C - Warning Signs and Object Markers~~

~~Chapter 2D - Guide Signs - Conventional Roads~~

~~Chapter 2E - Guide Signs - Freeways and Expressways~~

~~Chapter 2F - Toll Road Signs~~

~~Chapters 2G-2H - Preferential and Managed Lane Signs and General Information Signs~~

~~Chapters 2I-2N - General Service Signs, Specific Service Signs, Tourist-Oriented Directional Signs, Changeable Message Signs, Recreational and Cultural Interest Area Signs, and Emergency Management Signing~~

~~Part 3 - Markings~~

~~Part 4 - Highway Traffic Signals~~

~~Part 5 - Traffic Control Devices for Low-Volume Roads~~

~~Part 7 - Traffic Controls for School Areas~~

~~Part 8 - Traffic Control for Railroad and Light Rail Transit Grade Crossings~~

~~Part 9 - Traffic Control for Bicycle Facilities~~

~~Appendices A1 and A2 - Congressional Legislation and Metric Conversions~~

~~Virginia Supplement to the 2009 MUTCD, 2011 Edition, Virginia Department of Transportation, 1401 E. Broad Street, Richmond, Virginia 23219:~~

~~Cover and Introduction~~

~~1. General~~

~~2. Signs~~

~~3. Markings~~

~~4. Signals~~

~~7. Schools~~

~~8. Railroads~~

~~9. Bicycles~~

~~Appendix A~~

~~Virginia Work Area Protection Manual (WAPM), 2011 Edition, Virginia Department of Transportation, 1401 E. Broad Street, Richmond, Virginia 23219 (https://www.vdot.virginia.gov/doing-business/technical-guidance-and-support/technical-guidance-documents/work-area-protection-manual-and-pocket-guide/).~~

~~Virginia Standard Highway Signs, 2011 Edition, Virginia Department of Transportation, 1401 E. Broad Street, Richmond, Virginia 23219 (https://www.vdot.virginia.gov/doing-business/technical-guidance-and-support/technical-guidance-documents/virginia-standard-highway-signs/).~~

24VAC30-325-10. Eligibility criteria and conditions governing receipt and use of urban maintenance funds.

A. In addition to the eligibility requirements identified in § 33.2-319 of the Code of Virginia, the road and street eligibility criteria for urban maintenance payments shall also include the following:

1. The basic right-of-way width for cul-de-sacs eligible for payment will be 40 feet, with consideration of requests for pavement widths less than 30 feet. For the purpose of making this assessment, a cul-de-sac will be defined as a dead-end street, open only at one end.

2. If a municipality has jurisdiction over and operates a toll facility, such facility is eligible for street payments.

3. Local one-way streets, loop roads, and school bus entrances will be eligible for payment provided that they are constructed to a width of 16 feet with a right-of-way width of not less than 40 feet. This includes service and frontage roads where contiguous to an interstate, primary, or urban system route.

4. VDOT can consider a waiver of standards on a site-specific basis with appropriate supporting information. Each case will be considered on its own merits.

B. In determining lane mileage eligibility, the following conditions will apply:

1. Turning lanes and ramps will not be considered for street payments. This includes center turn lanes unless they serve as moving through lanes during peak hours.

2. Parking must be restricted and enforced by towing during peak traffic periods.

3. Each road or street with more than two moving lanes must have pavement markings in accordance with the ~~Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition, including Revision 1 dated November 2004, published by the U.S. Department of Transportation, Federal Highway Administration~~ Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways (24VAC30-315) .

4. Pavement widths of less than 14 feet qualify for only one moving lane even if it carries traffic in two directions.

5. Nonhard surfaced streets do not qualify for street payments.

C. Mileage adjustments, including the results of annexations, mergers, or incorporations, will be made on an annual basis as part of the board's approval of the annual maintenance payments. All adjustments submitted to the department by February 1 will be eligible for payment effective July 1 of the following fiscal year.

D. For the purpose of calculating maintenance payments, streets will be functionally classified based on the Federal Functional Classification system, except where the federal system is not parallel with the state system.

E. Bridge safety and regular inspection is of utmost importance. The Federal Highway Administration and the department require strict compliance with the National Bridge Inspection Standards (23 CFR Part 650) regarding the frequency of inspection and load posting requirements. The Commissioner of Highways may elect to withhold street payments from a municipality for delinquent or inadequate bridge inspection reports.

F.

The Commissioner of Highways is directed to establish administrative procedures to assure the

provisions of this chapter and legislative directives are adhered to and complied with.

24VAC30-325-20. ~~Document incorporated by reference.~~ (Repealed.)

~~Information pertaining to the availability and cost of the Manual on Uniform Traffic Control Devices (MUTCD), 2003 Edition with Revision No. 1 Incorporated, dated November 2004, should be directed to Federal Highway Administration, Superintendent of Documents, U.S. Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954. The MUTCD is also available from the following website: http://mutcd.fhwa.dot.gov/index.htm.~~

~~DOCUMENTS INCORPORATED BY REFERENCE (24VAC30-325)~~(Repealed)

~~Manual on Uniform Traffic Control Devices (MUTCD), 2003 Edition with Revision 1 Incorporated November 2004, Federal Highway Administration.~~

24VAC30-630-10. Requests for signs.

A. Any person who is deaf, blind, or deaf-blind; any person with autism or an intellectual or developmental disability as defined in § 37.2-100 of the Code of Virginia; or the agent of any such person may submit a request to the Virginia Department of Transportation (VDOT) by filling out a Request for Person with Disability Sign Form and submitting the completed form to the local VDOT office in the area where the sign is requested. The submitted form must include (i) medical certification that such person meets the disability requirement and (ii) the location of the requested sign.

B. Signs shall conform to the ~~edition of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and the Virginia Supplement to the MUTCD in 24VAC30-315-10~~ Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways (24VAC30-315) .

C. The requestor shall notify the VDOT office to which the original request was made of any change in circumstances such that the sign is no longer necessary (e.g., when the person with a disability relocates).

24VAC30-630-20. Signs; type, size, color, location, and installation.

A. Signs warning drivers to be aware of persons with disabilities must be posted on a non-limited access highway maintained by the Virginia Department of Transportation (VDOT) and shall be installed in advance of the location where a person with a disability may be on or near the roadway, such that motorists may effectively perceive and respond to the signs.

B. The type, size, color, installation, and specific location of signs shall be determined at VDOT's

discretion using engineering judgment in accordance with related VDOT procedures and regulations (including the ~~MUTCD and the Virginia Supplement to the MUTCD as referenced in 24VAC30-630-10~~ Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways (24VAC30-315)).

C. Signs warning drivers to be aware of persons with disabilities may not be posted:

1. Where any pedestrian activity is highly discouraged due to safety concerns.

2. Where they may conflict with, are redundant to, or in combination (e.g., on the same pole) with any other regulatory or warning signs.

3. Closer than 200 feet to any existing regulatory or warning signs.

4. At signalized locations such as crosswalks at intersections or pedestrian hybrid beacons. Requests concerning a person with a visual disability and the absence of accessible pedestrian signals at a particular traffic signal will be addressed separately.

5. At a crossing with an existing rectangular rapid flashing beacon. Requests concerning a person with a visual disability and the absence of audible information devices will be addressed separately.

6. At any location in which the presence of the sign would otherwise create a safety concern, in the discretion of VDOT.

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Exempt Action: Final Regulation
Agency Background Document

Agency name	Commonwealth Transportation Board
Virginia Administrative Code (VAC) Chapter citation(s)	24VAC30-155, 24VAC30-315, 24VAC30-325, and 24VAC30-630
VAC Chapter title(s)	Traffic Impact Analysis Regulations; Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways; Urban Maintenance and Construction Policy; and Rules Governing Person with Disability Traffic Signs
Action title	Amendment to adopt updated Manual on Uniform Traffic Control Devices
Final agency action date	_____, 2025
Date this document prepared	_____, 2025

This information is required for executive branch review pursuant to Executive Order 19 (2022) (EO 19), any instructions or procedures issued by the Office of Regulatory Management (ORM) or the Department of Planning and Budget (DPB) pursuant to EO 19. In addition, this information is required by the Virginia Registrar of Regulations pursuant to the Virginia Register Act (§ 2.2-4100 et seq. of the Code of Virginia). Regulations must conform to the Regulations for Filing and Publishing Agency Regulations (1 VAC 7-10), and the *Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code.*

Brief Summary

Provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

The Federal Highway Administration (FHWA) issued an updated Manual on Uniform Traffic Control Devices (MUTCD), dated December 2023, which contains the national standards for traffic control devices. State adoption of the federal MUTCD is required and must be completed by January 2026 through one of the following methods: adopt the MUTCD as-is, adopt the MUTCD with a state-specific supplement, or develop a state MUTCD incorporating national and state-specific content. All Virginia-specific adaptations to the MUTCD must remain in "substantial conformance" with federal guidelines.

The Virginia Department of Transportation (VDOT) developed the Virginia MUTCD, version 11.0, which incorporates the national standards and sets state-specific requirements in substantial conformance with the federal MUTCD. The Commonwealth Transportation Board (CTB) approved this document as the standard for all traffic control devices on highways under the jurisdiction of VDOT. The Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways, 24VAC30-315, must be amended to incorporate the Virginia MUTCD, version 11.0, into the Virginia Administrative Code and complete formal adoption in accordance with the federal requirements. The CTB and VDOT also approved amendments to remove the MUTCD as a Document Incorporated by Reference from 24VAC30-155 and 24VAC30-325 and to update the text of 24VAC30-155, 24VAC30-325, and 24VAC30-630 to reference 24VAC30-315 instead of the MUTCD document.

Mandate and Impetus

Identify the mandate for this regulatory change and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, internal staff review, petition for rulemaking, periodic review, or board decision). For purposes of executive branch review, "mandate" has the same meaning as defined in the ORM procedures, "a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part."

Federal regulation, particularly 23 CFR 655.603, requires that "The MUTCD approved by the Federal Highway Administrator is the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel in accordance with 23 U.S.C. 109(d) and 402(a)." The same federal regulation further states that "[w]here State or other Federal agency MUTCDs or supplements are required, they shall be in substantial conformance with the National MUTCD." The FHWA updated the MUTCD in December 2023, and state adoption of the federal MUTCD must be completed by January 2026.

Section 46.2-830 of the Code of Virginia authorizes the Commissioner of Highways to classify, designate, and mark state highways and provide a uniform system of traffic control devices for such highways under the jurisdiction of the Commonwealth. It further states that such system of traffic control devices shall correlate with and, so far as possible, conform to the system adopted in other states. The CTB is authorized generally to make regulations for the protection of and covering traffic on and for the use of systems of state highways pursuant to § 33.2-210 of the Code of Virginia. The CTB voted to adopt the Virginia MUTCD, version 11.0, which incorporates the federal standards and state-specific requirements, on ____, 2025.

Statement of Final Agency Action

Provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) that the agency has "adopted final amendments" to the regulation; 3) the name of the agency taking the action; and 4) the title of the regulation. A suggested statement is, "On [insert date] the Board/Department of [insert name] adopted final amendments to the [title of regulation(s)]."

On ____, 2025, the CTB adopted final amendments to 24VAC30-315 to incorporate the Virginia MUTCD, version 11.0, as the standard for all traffic control devices on highways under the jurisdiction of VDOT. On ____, 2025, the CTB and VDOT adopted final amendments to remove the MUTCD as a Document Incorporated by Reference from 24VAC30-155 and 24VAC30-325 and to update the text of 24VAC30-155, 24VAC30-325, and 24VAC30-630 to reference 24VAC30-315 instead of the MUTCD document.

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Periodic Review and Small Business Impact Review Report of Findings

Agency name	Commonwealth Transportation Board
Virginia Administrative Code (VAC) Chapter citation(s)	24 VAC 30-315
VAC Chapter title(s)	Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways
Date this document prepared	____, 2025

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 19 (2022) (EO 19), any instructions or procedures issued by the Office of Regulatory Management (ORM) or the Department of Planning and Budget (DPB) pursuant to EO 19, the Regulations for Filing and Publishing Agency Regulations (1 VAC 7-10), and the *Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code.*

Acronyms and Definitions

Define all acronyms used in this Report, and any technical terms that are not also defined in the "Definitions" section of the regulation.

CFR means the Code of Federal Regulations.
CTB means the Commonwealth Transportation Board.
MUTCD means the Manual on Uniform Traffic Control Devices.
U.S.C. mean the United States Code.

Legal Basis

Identify (1) the promulgating agency, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating agency to regulate this specific subject or program, as well as a reference to the agency's overall regulatory authority.

Section 46.2-830 of the Code of Virginia authorizes the Commissioner of Highways to classify, designate, and mark state highways and provide a uniform system of traffic control devices for such highways under the jurisdiction of the Commonwealth. It further states that such system of traffic control devices shall correlate with and, so far as possible, conform to the system adopted in other states. Federal regulation, particularly 23 CFR 655.603, requires that "The MUTCD approved by the Federal Highway Administrator is the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel in accordance with 23 U.S.C. 109(d) and 402(a)." The same federal regulation further states that "[w]here State or other Federal agency MUTCDs or supplements are required, they shall be in substantial conformance with the National MUTCD." The Commonwealth Transportation Board (CTB) is authorized generally to make regulations for the protection of and covering traffic on and for the use of systems of state highways pursuant to § 33.2-210 of the Code of Virginia.

Alternatives to Regulation

Describe any viable alternatives for achieving the purpose of the regulation that were considered as part of the periodic review. Include an explanation of why such alternatives were rejected and why this regulation is the least burdensome alternative available for achieving its purpose.

No viable alternatives for achieving the purpose of this regulation were identified or considered as part of the periodic review.

Public Comment

Summarize all comments received during the public comment period following the publication of the Notice of Periodic Review, and provide the agency's response. Be sure to include all comments submitted: including those received on Town Hall, in a public hearing, or submitted directly to the agency. Indicate if an informal advisory group was formed for purposes of assisting in the periodic review.

No public comments were received during the public comment period.

Effectiveness

Pursuant to § 2.2-4017 of the Code of Virginia, indicate whether the regulation meets the criteria set out in the ORM procedures, including why the regulation is (a) necessary for the protection of public health, safety, and welfare, and (b) is clearly written and easily understandable.

The Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways (24VAC30-315) are necessary for the protection of public health, safety, and welfare and are clearly written and easily understandable. However, amendments are now needed to reflect adoption of the 11th Edition of the MUTCD by the Federal Highway Administration (FHWA) and adoption of the of the Virginia MUTCD, version 11.0, by the Commonwealth Transportation Board (CTB).

Decision

Explain the basis for the promulgating agency's decision (retain the regulation as is without making changes, amend the regulation, or repeal the regulation).

If the result of the periodic review is to retain the regulation as is, complete the ORM Economic Impact form.

The CTB has determined that the Standards for Use of Traffic Control Devices to Classify, Designate, Regulate, and Mark State Highways, 24VAC30-315, must be amended to incorporate the Virginia MUTCD, version 11.0, into the *Virginia Administrative Code* and complete formal adoption of the standards in accordance with the federal requirements.

Small Business Impact

As required by § 2.2-4007.1 E and F of the Code of Virginia, discuss the agency's consideration of: (1) the continued need for the regulation; (2) the nature of complaints or comments received concerning the regulation; (3) the complexity of the regulation; (4) the extent to the which the regulation overlaps, duplicates, or conflicts with federal or state law or regulation; and (5) the length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the regulation. Also, discuss why the agency's decision, consistent with applicable law, will minimize the economic impact of regulations on small businesses.

The regulation is necessary to adopt federal standards as required by federal law. The CTB has received no complaints concerning the regulation, and although long and detailed, the regulation is not complex. The federal standards serving as the basis for this regulation were updated in December 2023, and the regulation now conflicts with federal law. A periodic review of this regulation was last performed in 2020. The regulation was adopted in 2012 pursuant to a CTB Resolution dated December 7, 2011, and has not been amended since. This regulation does not impose an economic impact on small businesses.

2026 Virginia MUTCD & WAPM

Attachment E - Summary of Changes *(last updated September 9, 2025)*

If you would like to view the draft Virginia Manual on Uniform Traffic Control Devices (MUTCD) and Virginia Work Area Protection Manual (VWAPM) (last updated September 2025), please use the link below:

https://www.vdot.virginia.gov/doing-business/technical-guidance-and-support/technical-guidance-documents/virginia-mutcd/

The items listed below are notable changes in the new federal MUTCD and Virginia MUTCD/VWAPM. Some editorial revisions or items deemed insignificant are omitted. Changes to the federal or Virginia MUTCD/VWAPM that are already current practice are not noted. Bolded text indicates items of interest or significance.

(F) Federal Change, (V) Virginia Change, (B) Both

Gray highlight = September 2025 updates

Virginia MUTCD (Parts 1-5, 7-9)

Part 1 - General

- **1A.04 – Current practice allows Traffic Control Device (TCD)applications by all users unless an engineering study is required, whereas the new practice mandates that decisions must be made by a qualified professional engineer or person under their supervision. (F)**
- 1D.04 – Current practice requires all deviations to standard signs to be approved by VDOT's Central Office Traffic Operations Division, while the new practice allows minor deviations for spot applications to be approved by the District Traffic Engineer or designee. (V)

Part 2 - Signs

- 2A.04 – Current practice prohibits displaying internet addresses, email addresses, domains, and URLs on signs; the new practice expands this to also prohibit hashtags, scanning graphics (such as QR codes), and telephone numbers. (F)
- 2A.07 – Current practice allows certain signs to exceed the maximum size limits, while the new practice strictly prohibits any sign size exceeding the prescribed maximum. (F)
- 2A.08 – Current practice allows using decimals for distances on advisory plaques, whereas the new practice requires using fractions instead. (F)

- **2A.23 – Current practice treats divided highway crossovers 30' or wider as two separate intersections, while the new practice requires two criteria, opposing left-turn vehicle paths crossing and adequate storage, to treat them as separate intersections. (F)**
- 2B.12 – Current practice considers all-way stop criteria, while the new practice expands these criteria into warrants and adjusts the 8-hour volume factor to reflect peak hour directionality. (B)
- 2B.20 – Current practice *allows* pedestrian crossing signs to be used when In-Street/Overhead Pedestrian Crossing signs are used, while the new practice *requires* their use, specifically at uncontrolled crossings. (F)
- 2B.21 – Current practice requires speed studies to include the current speed distribution of free-flowing vehicles, whereas the new practice devalues this distribution and adds other factors like roadway environment, characteristics, geographic context, crash history, and trends to speed studies. (F)
- 2B.29 – Current practice mounts optional movement lane control signs overhead only for approaches with three or more lanes, while the new practice requires these signs to be mounted overhead directly above the lane to which they apply. (F)
- 2B.46 – Current practice requires Do Not Enter signs where traffic is prohibited from entering restricted roadways; the new practice provides clearer criteria for their use, such as requiring them at crossovers functioning as two intersections. (F)
- **2B.51 – Current practice requires roundabout directional arrows, while the new practice replaces them with one-way signs and discontinues the use of directional arrows. (F)**
- 2B.V9 – Current practice prohibits All Terrain Vehicle (ATV) signs, while the new practice permits ATV signs in accordance with Section 46.2-800.2 of the Code of Virginia. (V)
- 2B.59 – Current practice allows Pedestrian Hybrid Beacon (PHB) signage options based on a Federal Highway Administration (FHWA) letter for modified signs, while the new practice revises the PHB signage to specify "Stop on steady red – yield on flashing red after stop." (F)
- **2C.06 – Current practice bases chevrons and horizontal alignment signage on speed differentials, while the new practice adds traffic volumes and introduces new criteria for using delineators and alignment signs at a 15-mph speed difference. (F)**
- 2C.07 – Current practice requires turn signs when the advisory speed is 30 mph or less, while the new practice recommends their use in these cases but allows flexibility to match the roadway geometry. (F)
- 2C.12 – Current practice allows combination horizontal alignment/advisory speed signs to use any alignment from Table 2C-1, whereas the new practice limits these signs to the standard signs specified. Not all alignments found in the Manual may be used on this sign. (F)
- **2C.13 – Current practice allows speed feedback signs to be installed on the same assembly as horizontal alignment signs, while the new practice requires speed feedback signs to be installed independently when supplementing horizontal alignment signs. (F)**

- 2C.47 – Current practice prohibits Lane Ends (W4-2), Right/Left Lane Ends (W9-1), and Lane Ends Merge Left/Right (W9-2) signs in dropped lane situations; the new practice prohibits W4-2 and W9-1 signs in these situations and requires regulatory signs to inform drivers of lane drops on conventional roadways. W9-2 signs removed from new Manual. (F)
- 2C.48 – Current practice has no merge signage for alternating merges into a single lane, while the new practice introduces lanes merge and single lane transition signs. (F)
- **2C.67 – Current practice uses "Share the Road" signs alongside bike, pedestrian, golf cart, horse, and farm machinery warning signs, while the new practice discontinues "Share the Road" and allows only "In Road" or "In Street" signs. (F)**
- 2D.05 – Current practice applies the same conventional guide sign sizes and attributes regardless of speed or mounting, while the new practice varies these sizes and attributes based on roadway speed limits and mounting style. (F)
- 2D.28 – Current practice does not use U-turn plaques, while the new practice provides U-turn plaques, notably for Reduced Conflict Intersections (RCI). (V)
- 2D.37 – Current practice does not allow Arrow Per Lane signs on conventional roads, whereas the new practice permits their use on conventional roads with option lanes. (F)
- **2E.12 –**
    - **Current practice allows Clearview font on all guide signs under interim approval, while the new practice restricts Clearview use to guide signs on freeways and expressways only. (F)**
    - **Current practice limits expressway overhead guide sign attributes to overhead columns, while the new practice requires these attributes to be enlarged if the ground-mounted attribute for interchange classification is larger. (F)**
- **2E.18 – Current practice places arrows on ground-mounted guide signs justified left or right based on exit direction, while the new practice requires arrows to be bottom center justified. (F)**
- **2E.38 – Current practice permits diagrammatic signs at freeway splits; the new practice requires conventional arrow signs when no choice lane exists and Arrow Per Lane signs when there is a choice lane, retiring diagrammatic signs from the MUTCD. (F)**
- **2E.42 – Current practice limits Arrow Per Lane signs to major interchanges, while the new practice allows partial-width Arrow Per Lane signs at intermediate interchanges, required when new sign structures are installed. (F)**
- 2G.23 – Current practice does not formalize part-time shoulder travel, while the new practice establishes formal signage and lane use signal requirements for part-time shoulder travel. (F)
- 2H.09 – Current practice does not formalize project information signs, whereas the new practice establishes formal requirements for project information signs with limited content. (F)

Part 3 - Markings

- 3B.03 – Current practice allows MUTCD minimum passing zones but with varying district practices exceeding the minimum, while the new practice standardizes passing zone lengths to meet or exceed passing sight distance based on Southwest Region Operations (SWRO) and Central Region Operations (CRO) guidelines. (V)
- 3B.12 –
    - Current practice ends the broken line at a point ¼ of the advance placement distance between the lane ends sign and the start of the transition taper, while the new practice extends the broken line as a dotted line up to the beginning of the transition taper. (F)
    - Current practice uses posted speed to determine lane transition areas, while the new practice uses the higher of the 85th percentile or posted speed, with a Virginia modification adding 5 MPH to the posted speed if the 85th percentile is unavailable. (B)
- **3B.14 – Current practice places Plastic Inlaid Markers (PIMS) based on complex "shall/should/may" tables, while the new practice uses simplified warrants: required for roads with 25,000+ vehicles per day (VPD) and ≥45 mph speed and optionally allowed on 5,000–25,000 VPD roads at the District Traffic Engineer's discretion. (V)**
- 3B.20 – Current practice spaces the message evenly between turn arrows, while the new practice groups the message closely with the turn arrow. (F)
- 3B.31 – Current practice provides no marking guidance for Diverging Diamond Interchanges (DDI), whereas the new practice includes a marking standard for DDIs. (F)
- **3H.05 – Current practice restricts green pavement markings to interim approval and prohibits their use on VDOT roads without a permit, while the new practice allows green, purple, red, yellow, and white pavement markings. (F)**
- 3J.07 – Current practice does not use painted sidewalk extensions; the new practice permits their use. (F)

Part 4 - Signals

- 4C.01 – Current practice is that signal warrants must be warranted and justified. New Federal guidelines eliminated the requirement for signal warrants to be met, however VDOT has re-elevated warrants to a shall condition. (B)
- 4C.08 – Current practice applies crash warrants based on 5 correctable crashes within 12 months, while the new practice stratifies crash warrants by individual approaches, over 1- and 3-year periods, and includes considerations for rural routes. (F)
- **4H.01 – Current practice does not use bike signals; the new practice allows them, but they remain unused due to Virginia Code restrictions. (B)**
- 4I.05 – Current practice lacks clear guidelines for push button placement, while the new practice defines and categorizes placement locations into preferred, acceptable, and less desirable areas. (F)

- 4J.02 – Current practice discourages installing PHB at minor street intersections. New Federal guidelines eliminated this recommendation for PHB distancing from intersections, however VDOT has included this statement again. (B)
- 4L.01 – Current practice uses Rectangular Rapid Flashing Beacons (RRFB) under Interim Approval, while the new practice includes RRFBs. (F)

Part 5 - CAV

- 5 – Current practice did not address Connected Automated Vehicles (CAV), while the new practice recommends considering CAV-related topics (markings, signs, signals) including scanning graphics invisible to the human eye. (F)

Part 7 - School Zones

- **7B.02 – Current practice does not formalize photo enforcement in the MUTCD, while the new practice establishes formal guidelines for photo enforcement. (V)**

Part 8 - Railroad and LRT Crossing

- 8A.03 – Current practice allows engineering studies for various railroad crossing elements, while the new practice requires a Diagnostic Team, including highway and regulatory agencies plus the railroad company, to modify or add railroad crossings. (F)
- 8D.09 – Current practice does not define requirements for railroad crossings near signalized intersections, while the new practice mandates interconnection between them. (F)
- 8E.09 – Current practice does not address pedestrian gates, while the new practice requires pedestrian gates on sidewalks and shared-use paths where trains travel over 80 mph. (F)

Part 9 - Bicycles

- 9B.17 – Current practice does not require "Bicycles Must Exit" signs at freeways, while the new practice mandates their use where a roadway transitions into a freeway or expressway that prohibits bicycle travel. (F)
- **9B – Current practice does not use bike boxes, two-stage bike turns, or jughandles, while the new practice allows their use with new signage and markings. (F)**
- 9D.07 – Current practice uses black and white US Bike Route signs, while the new practice introduces green and white US Bike Route signs. (F)
- **9E.01 – Current practice requires a helmeted biker symbol, while the new practice removes the helmeted biker symbol and mandates use of the standard bike symbol. (F)**
- **9E.06 – Current practice lacks a standardized design for buffer-separated bike lane markings, while the new practice establishes a standardized design. (F)**

Virginia Work Area Protection Manual (VWAPM)

Part 6 – Temporary Traffic Control

Chapter 6A - General

- **6A.01a: The current VWAPM states that deviations from guidance "should" stipulations require written documentation. The revised VWAPM defines "guidance" ("should") statements using the same definition as in the FHWA and Virginia MUTCDs. (V)**

Chapter 6B - Temporary Traffic Control (TTC) Elements

- 6B.01: The new practice states that modifications to TTC plans shall be documented, whereas the current practice suggests that they should be documented. (V)
- **6B.01: The new practice requires TTC plans to be designed according to the approach (pre-construction) speed limit, unless approved otherwise, while the current practice mandates design based on the reduced work zone speed limit. Diversions and crossovers shall be designed based on the work zone speed limit (if one is present) or the approach (pre-construction) speed limit otherwise. (V)**
- 6B.01: The new practice deletes the guidance recommending speed limits be stepped down in 10 mph increments and introduces a standard that reductions of 20 mph or greater require VDOT Central Office approval. (V)
- **6B.06: The new practice mandates that longitudinal buffer spaces shall be provided, whereas the current practice suggests they should be provided. (V)**
- 6B.06: The new practice eliminates the guidance limiting long-term duration activity areas to 2 miles unless approved by the District Traffic Engineer (DTE), which was included in the current practice. (V)
- Table 6B-V1: The new practice requires advance warning sign spacing on divided, non-limited access, ≥ 50 mph roads to be 1000 ft, whereas the current practice specifies 500 ft. (V)
- Table 6B-V5: The new practice establishes a minimum shifting taper length of 200 feet for shift widths of 4 feet or less, whereas the current practice has no such requirement. (V)

Chapter 6C - Pedestrian and Worker Safety Considerations

- 6C.02: The new practice adds the option to use a ride-sharing app to provide mobility through a work zone, whereas the current practice does not include this option. (V)
- **6C.02: The new practice introduces an option to avoid establishing alternate pedestrian routes in short-duration work zones if project personnel can facilitate pedestrian passage, while the current practice lacks this provision. The new practice also requires Traffic Operations Division (TOD) consultation before specifying this practice in a contract. (B)**
- 6C.02: The new practice specifies that tape, rope, etc. shall not be used to control pedestrian movements, whereas the current practice states they should not be used. (V)
- **6C.03 and 6K.07: The new practice requires that TTC devices shall not reduce the width of a pedestrian facility to less than 48 inches, unless detoured or diverted, whereas the current practice recommends providing a width of 60 inches. (B)**
- 6C.04: The new practice mandates that all workers shall be trained, whereas the current practice recommends that all workers should be trained. (V)
- **6C.04 and 6N.17b: The new practice states that (a) workers "shall" not cross open lanes limited access highways or ramps for any reason, (b) workers installing or removing TTC devices "shall" not cross divided highways with a 40+ mph speed limit for any reason, and (c) to the extent practical, should not cross undivided roads with a 40+ mph speed limit. This language has been relocated to section 6C.04 (worker safety) from Section 6N.17b (installing and removing TTC devices). The current practice states that workers "should not" run across open travel lanes to install TTC devices. (V)**
- Table 6C-V1: The new practice updates requirements to specify when gaiters may be used instead of high-visibility trousers. (V)
- Table 6C-V1: The new practice introduces flexibility in Personal Protective Equipment (PPE) requirements for emergency responders involved in patient extrication, whereas the current practice does not address this situation. (V)

Chapter 6D - Flagging and Hand Signaling

- 6D.01: The new practice incorporates the 2024 changes to VDOT flagger certification requirements, whereas the current practice does not reflect these updates. (V)
- 6D.02: The new practice allows STOP/STOP paddles to be used, but prohibits SLOW/SLOW paddles. (B)
- 6D.03: The new practice clarifies the limitations on when flags may be used and adds that if flags are used in an emergency situation, flaggers should transition to Automated Flagger Assistance Device (AFAD) or paddle operation as soon as practical. (V)
- **6D.06 and 6M.08: The new practice removes the specific 50 lux requirement for flagger stations and instead provides guidance on portable light placement and aiming,**

whereas the current practice requires 50 lux of horizontal luminance at flagger stations. (V)

Chapter 6E - One-Lane, Two-Way Traffic Control

- **6E.01: The new practice requires cones in the taper but allows them to be omitted in the tangent section, whereas the current practice allows all cones to be omitted in flagging and other one-lane/two-way traffic control situations if the road is 20 feet or less in width. (V)**
- **6E.06: The new practice only requires DTE approval to use stop sign control on roads with ≥ 1000 vehicles per day, prohibits yield signs, and requires visibility between drivers at opposite stop signs; current practice requires DTE approval for all such installations, but does not specify whether stop or yield signs are to be used. (V)**

Chapter 6F - Signs (General)

- 6F.01: The new practice requires school warning signs in TTC zones to have a fluorescent yellow-green background, whereas the current practice does not specify this. (V)
- **6F.02: The new practice introduces options and standards for attaching signs to median barriers, which were not specified in the current practice. (B)**
- **6F.02: The new practice allows rollup signs to remain in place for longer than 3 days with DTE approval, while the current practice prohibits them if the sign will be up for more than 3 days. (V)**

Chapter 6G - Regulatory Signs

- 6G.04: The new practice changes "Bike Lane Closed" and "Path Closed" signs from a standard to a recommended practice, whereas the current practice lists them as a standard. (V)
- 6G.04: The practice adds the requirement that "Path Closed" signs must be used with an accessible barricade. (B)
- 6G.04: The new practice introduces guidance on when to use whole number distances without fractions or decimals, whereas the current practice does not specify this. (V)
- **6G.07: The new practice deletes the standard requiring "Do Not Pass" signs where there is a pavement differential due to milling between lanes on a multi-lane road and adds requirements to Figure TTC-57 for using motorcyclist warning plaques in such situations. (V)**
- **6G.07: The new practice introduces new figures and guidance for late merge ("zipper merge") scenarios, recommending dynamic "zipper merges" instead of static ones, while the current practice did not address these situations. (B)**
- 6G.07a: The new practice allows “Work Zone | $500 Max Fine for Speeding” to be used; the current practice uses a “Work Zone | $500 Max Fine for Exceeding Speed Limit When

Flashing" sign design, and specifies that such signs shall only be used when justified by an engineering study and approved by the DTE. (V)

- **6G.08: The new practice adds variable speed limit signs to the VWAPM, specifies a minimum size of 36x48 inches, requires white LEDs on a black background, and allows districts to establish programmatic policies for their use in conjunction with paving schedules or similar projects, while the current practice does not include these specifications. (B)**
- **6G.08a: The new practice introduces a new section on Work Zone Speed Safety Cameras, which was not included in the current practice. (V)**
- 6G.10: The new practice requires "Sidewalk Closed" signs to be attached to pedestrian channelizing devices or placed on portable sign stands immediately adjacent to them, which was not specified in the current practice. (B).
- 6G.11 and 6H.25: The new practice introduces flexibility in the use of "turn off 2-way radio" signs in blasting zones, whereas the current practice requires such signs in all blasting operations. (B)
- Table 6G-1: The new practice revises column headings and establishes a policy on when smaller signs may be used, aligning the column headings more closely with MUTCD headings. (V)
- Table 6G-1: The new practice reduces the size of "Sidewalk Closed" signs to match the MUTCD. (V)

Chapter 6H - Warning Signs

- 6H.02: Added guidance that the word "Ahead" should be used instead of a specific distance on advance warning signs. (V)
- **6H.02b: Vehicle Speed Feedback ("Your Speed XX") signs added to the VWAPM. The new MUTCD requires such signs to be orange, with the numerals consisting of yellow LEDs on black background. (B)**
- 6H.03: The current VWAPM states that in mobile work zones that exceed 2 miles, the work area should be extended as work progresses and a secondary ROAD WORK NEXT 2 MILES sign should be installed. The revised VWAPM instead states that a single "Road Work Next 2 Miles" sign be used, that is periodically relocated downstream as the work progresses. (V)
- 6H.07: The current VWAPM prohibits an interior lane closure (with traffic in the same direction on both the left and right side of the work zone). The revised VWAPM allows interior lane closures, and use of the W9-3 symbolic center lane closed sign, if justified by an engineering study and approved by the DTE or designee. (B)
- 6H.07: Clarified that for the W20-5 "Left/Right Lane Closed Ahead", 3-line signs [allowed under the current VWAPM] or 4-line signs may be used until December 31, 2029. Signs after that point will need to be 4-line signs. (B)

- **6H.08: Current practice uses white "Keep Left/Right" signs in all lane drops. The revised practice prohibits such signs, and instead uses other signs in the sequence for lane drops. (V)**
- 6H.08: Either a static "Merge Here Take Turns" sign or PCMS board with similar message should be used at the merge point during Late Merge (aka "zipper merge") applications. (B)
- 6H.10 and 6N.07: The current practice requires the use of the Lane Width plaque where there is less than 14 feet between the edge line and channelizing devices on a ramp. The revised practice measures the 14-foot threshold from edge of barrier to edge of barrier and revises the guidance for traffic engineering studies associated with narrowed ramps. (V)
- **6H.11: Current practice is to use signs on the backs of shadow vehicles/work vehicles that say "Left/Right Lane Closed" or "Left/Right Shoulder Closed". The revised VWAPM will allow such signs to read "Lane Closed" or "Shoulder Closed" (omitting the "Left/Right").** (V)
- 6H.11: Minor revisions to when "Pre-Storm Treatment" or "Keep Back 100 ft" signs are required. (V)
- 6H.15: Revised option for when the "Slow" sign may be used approaching a flagger operation. (V)
- 6H.19: Added language prohibiting the MUTCD's "Fresh Oil" sign and allowing the "Fresh Tar" sign only in association with crack sealing/rumble strip sealing. Added that the "Loose Gravel" sign shall be used in conjunction with slurry seal/surface treatment operations. (V)
- 6H.21: Added guidance that "Trucks Entering Highway When Flashing" assemblies should be considered under certain circumstances. (V)
- 6H.26: "Low shoulder" signs should (not shall) be repeated at 1-mile intervals. (V)
- 6H.26: Added clarity on when the VDOT "Shoulder Drop off" sign may be used instead of the symbolic Shoulder Drop-off sign with supplemental plaque. (V)
- 6H.34: New guidance on when to use "Rough Road" vs. "Uneven Lanes" signs. (V)
- 6H.35: Deleted option to place "Road Work Next X Miles" sign on barricade. (V)
- 6H.38b: Added guidance that Slow Moving Vehicles sign should not be substituted for VDOT's other vehicle-mounted signs. (V)
- Table 6H-1: Reduced size of "End Road Work" signs from 60x24 to 48x24 to match the MUTCD. (V)

Chapter 6I - Guide Signs

- 6I.02: Advance turn signs shall (not should) be provided for roads with a speed limit of 35 or greater. Advance turn signs may (not should) be provided for roads with a speed limit of 30 mph or below. (V)
- 6I.02: Detour plaque should (not may) be mounted above route marker assemblies. (V)
- 6I.03: If an exit is closed, the exit guide sign can be completely covered instead of affixing a diagonal "Exit Closed" panel. (V)

- 6I.03: Added a new option to allow an "Exit Closed' panel to be omitted where the ramp closure is associated with a short- or intermediate-duration TTC zone, and a bucket truck would be required to affix the panel to an overhead sign panel. (V)
- Table 6I-1: The current VWAPM requires most M4-series detour signs to be 60" x 48". The revised VWAPM requires most M4-series detour signs to be 48" x 36". (V)

Chapter 6J - Pavement Markings in TTC Zones

- 6J.01: Deleted requirement for maximum 1/8-inch depth from scarring from pavement marking eradication. State that pavement marking should (not shall) remove the non-applicable marking material and minimize scarring. (V)
- 6J.02: Added reference to IIM-TE-395 (Temporary Marking Width and Materials) and to the Pavement Marking (PM)-series Road and Bridge Standard Drawings. (V)
- 6J.03: Flexible Temporary Pavement Markers (FTPMs) shall be installed as per Standard Drawing PM11 and shall not be used for transverse lines or symbols/messages. (V)
- 6J.03: Plastic Inlay Markers (PIMs) may be used instead of Temporary Raised Pavement Markers (TRPMs) on projects 6 months or greater in duration if approved by the Engineer. Non-reflective markers shall not be used. (V)

Chapter 6K - Channelizing Devices

- 6K.01: LED devices may be placed underneath cones to illuminate them from within in a flashing sequential sequence. (V)
- **6K.02: The new MUTCD added language requiring that pedestrian channelizing devices that are detectable by users of long canes and visible to pedestrians with vision disabilities shall be used for sidewalk closures, and the devices shall cover the entire width of the sidewalk. (F)**
- 6K.02: Additional requirements for detection plates and hand-trailing edges on pedestrian channelizing devices (F).
- 6K.03: Cones shall be retroreflectorized (day or night). (V)
- 6K.03: Cones are either 36 inches or 42 inches tall. Cones that are 36" and cones that are 42" shall not be intermixed with each other in the same run. (V)
- 6K.08: The bottom of signs mounted on barricades shall (not should) be at least 1 foot above the travelway. (V)

Chapter 6L - Other TTC Zone Traffic Control Devices

- 6L.01: Temporary signal heads shall be 12" signal heads with high-visibility backplates and visors. (V)
- **6L.01: In long-term duration work zones where portable signals are used, at least one signal head per direction shall be overhead. (V)**

- 6L.01: Added reference to Virginia MUTCD and IIM policies on yellow and all-red timings. Malfunction Management Units shall (not should) be used. (V)
- 6L.01: Accessible Pedestrian Signals shall be provided for temporary signals with signalized pedestrian crosswalks. (V)
- 6L.01: Eliminated the requirement for the DTE to determine whether to use portable supports vs. temporary fixed supports for temporary traffic signals. (V)
- 6L.01: "Alternate circulation paths" for pedestrians shall have 48-inch (not 36-inch) minimum width. (B)
- 6L.01 and 6L.02: Allows portable signals and Automated Flagger Assistance Devices (AFADs) to be delineated with 4 cones instead of 4 drums in some circumstances. (V)
- **6L.02: The current VWAPM only allows AFADs if they are used at both ends of the work zone, are spaced 800 feet apart maximum, are on roads 1200 feet or less ADT, and only if approved by the DTE. The revised VWAPM will allow ADTs any distance apart and eliminate spacing and ADT thresholds, however two separate AFAD operators are required unless the AFADs are within 2000 feet of each other and the operator can see both AFADs and both approaches. (V)**
- 6L.02: If there is an AFAD at one end of the work zone and a flagger with a paddle at the other end, the flagger shall not simultaneously operate the stop/slow paddle and the AFAD. (V)
- 6L.04: Red/yellow AFADs shall have visors and high-visibility backplates. (V)
- 6L.05: The current VWAPM allows Portable Changeable Message Signs (PCMSs) to use either orange or yellow LEDs. The revised VWAPM only allows yellow LEDs. (V)
- 6L.05: PCMS messages should (not shall) comply with VWAPM Appendix D. (V)
- **6L.05: PCMS enclosures shall be locked and be password-protected. Also specifies standards and guidance for password setting/strength. (V)**
- 6L.06: The current VWAPM requires arrow boards to use the "alternating diamond" pattern when in caution mode on Safety Service Patrol (SSP) vehicles but prohibits "alternating diamond" on all other vehicles. The revised VWAPM allows "alternating diamond" on any work vehicle/shadow vehicle in a manned work zone. (V)
- 6L.07a: Additional clarification on when parked/stationary work vehicles can or should consider turning their vehicle warning lights off. (V)

Chapter 6M - Other TTC Zone Design Features and Safety Devices

- 6M.02: New standard that movable barrier usage shall be reviewed and approved by the DTE. (V)
- 6M.05: Deleted "Crash Area Keep Clear" signs from the VWAPM. (V)
- **6M.05: The current VWAPM allows Truck-Mounted Attenuators (TMAs) to be in place a maximum of 24 hours when protecting a fixed object during an incident management operation. The revised VWAPM states that if a stationary impact attenuator is damaged and cannot be immediately repaired or replaced, a stationary unmanned**

TMA shall be used in its place, and the stationary impact attenuator shall be repaired or replaced as quickly as possible. (V)

- 6M.05: The current VWAPM requires TMAs for all snooper truck/bucket truck operations, regardless of speed limit. The new VWAPM only requires them on roads with 45+ speed limit and allows TMAs to be omitted for unplanned emergency maintenance (e.g. replacing a traffic signal head) or where the work will take 15 minutes or less. (V)
- 6M.06: Portable Temporary Rumble Strips (PTRS) may be orange (in addition to black or white/silver). (V)
- **6M.06: Current practice allows PTRS as an option on Limited Access highways. The revised practice states that PTRS shall not be used on Limited Access highways unless approved by the DTE. (V)**
- 6M.06a: Non-Portable Temporary Rumble Strips (NTRS) should be considered for use on multiple-month projects. If used, they should be located away from horizontal curves, and locations may be adjusted to avoid noise-sensitive land uses. (V)

Chapter 6N - Types of TTC Zone Activities

- 6N.01: Added "transient duration" as a category that refers to work of 5 minutes or less. (V)
- 6N.01: Defines "mobile work" as work that moves either intermittently or continuously at least 1000 feet every 15 minutes. (V)
- 6N.01: Channelizing devices shall be periodically (not "continuously") repositioned in mobile work zones to keep them near the work area. (V)
- 6N.01: Mobile operations shall be scheduled within the Department's Allowable Closure Hours window unless approved otherwise. (V)
- 6N.01: Arrow boards/PCMS boards in mobile operations shall be attached to work operations vehicles, not towed behind them. (V)
- 6N.04: FHWA added new guidance regarding maintaining bikeway continuity and bicycle travel options in TTC zones. (F)
- 6N.12a: Markings and signs for steel plates may be omitted if an alternative to steel plate material is used that has a surface with adequate friction and has tapered edges. (V)
- 6N.12b: Detours should be considered instead of flagging at roundabouts. (V)
- 6N.15: Clarify the geometric design requirements for crossovers and diversions. (V)
- 6N.17a: In "slow roll" operations, the electronic messages should read "All Lanes Slowed | Be Prepared to Stop" not "Road Work Ahead | Be Prepared to Stop". (V)
- **6N.18a: Added guidance that where construction vehicles will ingress or egress on Limited Access highways through breaks in the median barrier, the entrance should be designed with acceleration/deceleration/weaving lane lengths required by the Road Design Manual for permanent facilities, or "Trucks Entering Highway When Flashing" signs should be used. (V)**

- 6N.18a: Added guidance that when designing TTC plans, the designer should provide sufficient ingress/egress points in the plans to allow the Contractor to prosecute the work. (V)
- 6N.18c: Law enforcement officers should (not shall) complete the "Work Zone Training for Law Enforcement Officers" training. (V)
- 6N.19: New section on Late Merges. (B)

Chapter 6O - Control of Traffic Through Traffic Incident Management Areas

- 6O.01: Deleted language that duplicates or conflicts with the Traffic Incident Management (TIM) Training. (V)
- 6O.01: Refer to "positioning" rather than "safe positioning" of vehicles. (F)
- 6O.13: Add support that this section does not apply to TTC devices installed by emergency responders. (V)
- 6O.13: All Traffic Incident Management Control (TIMC) figures were deleted from the VWAPM. Added new standards and options for how to adopt the TTC figures to incident management situations. (V)

Chapter 6P – Temporary Traffic Control (TTC) Applications

[Note: only changes not previously described are noted below]

- Figure TTC-4: Eliminated "Right Shoulder Closed Ahead" signs from the sign sequence for all short-term lane closures. (V)
- Figure TTC-9: Made "End Mowing" signs optional. (V)
- Figure TTC-10: Revised placement of shadow vehicle #2 in the "treatment 2" operation. (V)
- Figure TTC-11: Changed signs on the work vehicles to read "Wet Paint Ahead | Stay Off Lines". (V)
- **Figure TTC-35: FHWA added a new MUTCD requirement that Temporary Audible Information Devices (TAIDs) shall be provided with all "Sidewalk Closed Cross Here" signs and midblock sidewalk closings. (F)**
- Figure TTC-35: Pedestrian diversions shall be at least 5 feet wide. (F)
- Figure TTC-38: Added an "On Ramp" plaque beneath the Road Work Ahead sign. (V)
- Figure TTC-39: Changes to when on-ramps should have stop signs, yield signs, or no regulatory signs. (V)
- Figure TTC-40: Stay in Lane signs may (not shall) be used in conjunction with lane shifts on multi-lane highways. (V)
- Figure TTC-44: Deleted certain signs. (V)
- Figure TTC-48: Only one (not two) "Road Closed" signs required at the closure point. (V)
- Figure TTC-50: New guidance on when the flagger should be standing in the median or the shoulder. (V)

- Figure TTC-51: Deleted the “Do Not Pass” sign. (V)
- Figures TTC-57, -58, and -64: Added optional motorcyclist symbol plaques beneath the “Uneven Lanes” sign. Eliminated the “Stay in Lane” regulatory signs. Added a PCMS with suggested message “Motorcycles | Rt Lane Grooved Ahead”. (V)
- Figure TTC-66: Alternating Diamond pattern required for the arrow boards on rolling roadblock vehicles. (V)
- **Figure TTC-70a: New TTC figure showing signing and camera placement requirements for Speed Safety Cameras. (V)**
- Figure TTC-71: Bicycle facility TTC figures have been added to the VWAPM. (F)