

Virginia Work Area Protection Manual

Standards and Guidelines for Temporary Traffic Control

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VIRGINIA WORK AREA PROTECTION MANUAL

STANDARDS AND GUIDELINES

*FOR
TEMPORARY
TRAFFIC CONTROL*

VIRGINIA DEPARTMENT OF TRANSPORTATION
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**VIRGINIA WORK AREA PROTECTION MANUAL
TABLE OF CONTENTS**

	<u>Page</u>
INTRODUCTION	I-1
CHAPTER 6A. GENERAL	
Section 6A.01 General	6A-1
Section 6A.02 Engineering Study and Engineering Judgment	6A-2
Section 6A.03 Definitions of Words and Phrases in This Manual	6A-2
Section 6A.04 Meanings of Acronyms and Abbreviations in this Manual.....	6A-8
CHAPTER 6B. FUNDAMENTAL PRINCIPLES	
Section 6B.01 Fundamental Principles of Temporary Traffic Control.....	6B-1
CHAPTER 6C. TEMPORARY TRAFFIC CONTROL ELEMENTS	
Section 6C.01 Temporary Traffic Control Plans	6C-1
Section 6C.02 Temporary Traffic Control Zones	6C-2
Section 6C.03 Components of Temporary Traffic Control Zones	6C-2
Section 6C.04 Advance Warning Area.....	6C-2
Section 6C.05 Transition Area	6C-4
Section 6C.06 Buffer Space.....	6C-4
Section 6C.07 Activity Area.....	6C-6
Section 6C.08 Termination Area	6C-6
Section 6C.09 Tapers.....	6C-6
Section 6C.10 Detours and Diversions	6C-8
Section 6C.11 One-Lane, Two-Way Traffic Control	6C-11
Section 6C.12 Flagger Method of One-Lane, Two-Way Traffic Control	6C-11
Section 6C.13 Flag Transfer Method of One-Lane, Two-Way Traffic Control.....	6C-11
Section 6C.14 Pilot Car Method of One-Lane, Two-Way Traffic Control	6C-11
Section 6C.15 Temporary Traffic Control Signal Method of One-Lane, Two-Way Traffic Control	6C-12
Section 6C.16 Stop or Yield Control Method of One-Lane, Two-Way Traffic Control.....	6C-12
CHAPTER 6D. PEDESTRIAN AND WORKER SAFETY	
Section 6D.01 Pedestrian Considerations	6D-1
Section 6D.02 Accessibility Considerations.....	6D-3
Section 6D.03 Worker Safety Considerations	6D-4
CHAPTER 6E. FLAGGER CONTROL	
Section 6E.01 Qualifications for Flaggers.....	6E-1
Section 6E.02 High-Visibility Safety Apparel	6E-1
Section 6E.03 Hand-Signaling Devices	6E-2
Section 6E.04 Automated Flagger Assistance Devices.....	6E-3
Section 6E.05 STOP/SLOW Automated Flagger Assistance Devices.....	6E-5
Section 6E.06 Red/Yellow Lens Automated Flagger Assistance Devices.....	6E-6
Section 6E.07 Flagger Procedures.....	6E-8
Section 6E.08 Flagger Stations	6E-14
Section 6E.09 Traffic Spotter	6E-14
Section 6E.10 Temporary Traffic Control Spotter	6E-15
CHAPTER 6F. TEMPORARY TRAFFIC CONTROL ZONE DEVICES	
Section 6F.01 Types of Devices.....	6F-1
Section 6F.02 General Characteristics of Signs	6F-1
Section 6F.03 Sign Placement.....	6F-3
Section 6F.04 Sign Maintenance.....	6F-12

Section 6F.05	Regulatory Sign Authority	6F-12
Section 6F.06	Regulatory Sign Design	6F-12
Section 6F.07	Regulatory Sign Applications	6F-13
Section 6F.08	Road (Street) Closed Sign (R11-2) and Ramp Closed Sign (R11-V1)	6F-13
Section 6F.09	Local Traffic Only Signs (R11-3a, R11-4, R11-V2)	6F-13
Section 6F.10	Weight Limit Signs (R12-2, R12-5, R12-V1).....	6F-16
Section 6F.11	Restricted Width Route Sign (R5-V1)	6F-16
Section 6F.12	Do Not Pass Sign (R4-1) and Stay In Lane Sign (R4-9).....	6F-17
Section 6F.13	Work Zone \$500 Max. Fine For Exceeding Speed Limit When Flashing Sign (R2-V1)	6F-17
Section 6F.14	Work Zone Plaque (G20-5aP, G20-5aP (V)), Speed Limit Sign (R2-1), Fines Higher Plaque (R2-6P), and End Work Zone Speed Limit Sign (R2-12).....	6F-18
Section 6F.15	Pedestrian Crosswalk Sign (R9-8)	6F-18
Section 6F.16	Sidewalk Closed Signs (R9-9, R9-10, R9-11, R9-11a)	6F-19
Section 6F.17	Special Regulatory Signs	6F-19
Section 6F.18	Warning Sign Function, Design, and Application	6F-20
Section 6F.19	Position of Advance Warning Signs	6F-21
Section 6F.20	Reduced Speed Limit Ahead Sign (W3-5).....	6F-21
Section 6F.21	Road (Street) Work Ahead Sign (W20-1), Road Work Next 2 Miles Sign (W21-V2) and Emergency Work Ahead Sign (W20-V27).....	6F-21
Section 6F.22	Mowing Ahead Sign (W21-8), Mowing Next 2 Miles Sign (W21-V3), Watch For Slow Moving Vehicle Sign (W21-V1), Line Painting Next 5 Miles Sign (W21-V4), and Spraying Next 5 Miles Sign (W21-V5)	6F-22
Section 6F.23	Detour Ahead Sign (W20-2).....	6F-23
Section 6F.24	Road (Street) Closed Ahead Sign (W20-3), Ramp Closed Ahead Sign (W20-V12), and Road Closed High Water Sign (W20-V11)	6F-23
Section 6F.25	One Lane Road Ahead Sign (W20-4)	6F-23
Section 6F.26	Lane(s) Closed Signs (W20-5, W20-5a), Turn Lane(s) Closed Signs (W20-V13), Median Crossover Closed Ahead Signs (W20-V15), and Median Crossover Closed Sign (W20-V16).....	6F-24
Section 6F.27	Emergency Scene Ahead Sign (W20-V25).....	6F-24
Section 6F.28	Center (Left/Right) Lane Closed Ahead Sign (W9-3)	6F-24
Section 6F.29	Lane Ends Merge Left/Right (W9-2), Keep Left/Right (R4-V7), and Lanes Ends Signs (W4-2).....	6F-25
Section 6F.30	One-Direction Large Arrow Sign (W1-V1)	6F-25
Section 6F.31	On Ramp Plaque (W13-4P) and Ramp Work Ahead Sign (W21-V16).....	6F-26
Section 6F.32	Signal Work Ahead Sign (W21-V17)	6F-26
Section 6F.33	Ramp Narrows Sign (W5-4) and Lane Width Plaque (W5-VP1)	6F-26
Section 6F.34	Shadow Vehicle and Work Vehicle-Mounted Signs.....	6F-26
Section 6F.35	Exit Open and Exit Closed Signs (E5-2, E5-2a)	6F-31
Section 6F.36	Exit Only Sign (E5-3) and Exit Sign (E5-V1)	6F-32
Section 6F.37	New Traffic Pattern Ahead Sign (W23-2)	6F-32
Section 6F.38	Flagger Signs (W20-7a, W20-7), XX Feet Plaque (W16-VP3), and Slow Sign (W21-V10)	6F-32
Section 6F.39	Two-Way Traffic Signs (W6-3, W6-4) and Parallel Road Closed Plaque (W6-VP1).....	6F-33
Section 6F.40	Motorized Traffic Signs - Truck Crossing Symbol (W11-10), Truck Crossing Sign (W8-6), Watch For Turning Vehicles Sign (W11-V3), Trucks Entering Highway Sign (W11-V4), and Construction Entrance Sign (W11-V2).....	6F-33
Section 6F.41	Rough Road Sign (W8-8), Motorcycle Plaque (W8-15P), and Grooved Pavement Sign (W20-V14).....	6F-34
Section 6F.42	Shoulder Work Signs (W21-5, W21-5a, W21-5b, W21-V11, W21-V12).....	6F-34
Section 6F.43	Pull-Off Area Signs (W21-V13, W21-14, W21-15, E5-V2) and Supplemental Plaques (W16-VP1, W16-VP2, W16-VP3, W21-VP4, W16-VP5).....	6F-34
Section 6F.44	Survey Crew Ahead Sign (W21-V8)	6F-35
Section 6F.45	Utility Work Ahead Sign (W21-7).....	6F-35

Section 6F.46	Signs for Blasting Areas	6F-35
Section 6F.47	Blasting Zone Ahead Sign (W22-1).....	6F-36
Section 6F.48	Turn Off 2-Way Radio And Cell Phone Sign (W22-2)	6F-36
Section 6F.49	End Blasting Zone Sign (W22-3).....	6F-36
Section 6F.50	Soft Shoulder (W8-4), Low Shoulder (W8-9), Shoulder Drop Off (W8-V5), and Shoulder Drop Off (W8-17P)	6F-36
Section 6F.51	Uneven Lanes Sign (W8-11).....	6F-37
Section 6F.52	Steel Plate Ahead Sign (W8-24)	6F-37
Section 6F.53	No Center Line Sign (W8-12) and Unmarked Pavement Ahead Sign (W8-V4)	6F-37
Section 6F.54	Reverse Curve Signs (W1-4 Series).....	6F-38
Section 6F.55	Double Reverse Curve Signs (W24-1 Series).....	6F-38
Section 6F.56	Other Warning Signs.....	6F-38
Section 6F.57	Special Warning Signs	6F-38
Section 6F.58	Advisory Speed Plaque (W13-1P)	6F-39
Section 6F.59	Supplementary Distance Plaque (W16-VP1).....	6F-39
Section 6F.60	Guide Signs	6F-40
Section 6F.61	Road Work Next XX Miles Sign (G20-1 (V)).....	6F-40
Section 6F.62	End Road Work Sign (G20-2 (V)), End Mowing Sign (G20-V2) and End Survey Sign (G20-V3)	6F-40
Section 6F.63	Pilot Car Follow Me Sign (G20-4) – (Vehicle Mounted)	6F-41
Section 6F.64	Work Vehicle Frequent Turns Sign (G20-V1a) and Work Vehicle Do Not Follow Sign (G20-V1) – (Vehicle Mounted)	6F-41
Section 6F.65	Caution Frequent Stops Sign (G20-V4) – (Vehicle Mounted)	6F-41
Section 6F.66	Detour Signs (M4-8, M4-8a, M4-V1, M4-V2, M4-V3, M4-V4, M4-9, M4-9 (V), M4-9a, M4-9b, M4-9c, and M4-10)	6F-41
Section 6F.67	Business Entrance Signs (M4-V6a, M4-V6b)	6F-43
Section 6F.68	Portable Changeable Message Signs.....	6F-43
Section 6F.69	Arrow Boards	6F-47
Section 6F.70	High-Level Warning Devices (Flag Trees).....	6F-50
Section 6F.71	Channelizing Devices	6F-51
Section 6F.72	Cones.....	6F-52
Section 6F.73	Tubular Markers.....	6F-53
Section 6F.74	Vertical Panels	6F-53
Section 6F.75	Drums.....	6F-54
Section 6F.76	Type 3 Barricades	6F-55
Section 6F.77	Direction Indicator Barricades	6F-57
Section 6F.78	Temporary Traffic Barriers as Channelizing Devices.....	6F-57
Section 6F.79	Longitudinal Channelizing Devices	6F-58
Section 6F.80	Temporary Lane Separators	6F-58
Section 6F.81	Other Channelizing Devices	6F-59
Section 6F.82	Detectable Edging for Pedestrians	6F-59
Section 6F.83	Temporary Raised Islands.....	6F-61
Section 6F.84	Opposing Traffic Lane Divider and Sign (W6-4)	6F-61
Section 6F.85	Pavement Markings.....	6F-62
Section 6F.86	Temporary Markings.....	6F-62
Section 6F.87	Temporary Raised Pavement Markers	6F-63
Section 6F.88	Delineators	6F-66
Section 6F.89	Lighting Devices	6F-66
Section 6F.90	Floodlights	6F-66
Section 6F.91	Warning Lights	6F-67
Section 6F.92	Vehicle Warning Lights	6F-68
Section 6F.93	Temporary Traffic Control Signals.....	6F-69
Section 6F.94	Temporary Traffic Barriers	6F-70
Section 6F.95	Crash Cushions	6F-72
Section 6F.96	Rumble Strips.....	6F-74
Section 6F.97	Screens	6F-75

CHAPTER 6G.**TYPE OF TEMPORARY TRAFFIC CONTROL ZONE ACTIVITIES**

Section 6G.01	Typical Applications	6G-1
Section 6G.02	Work Duration	6G-1
Section 6G.03	Location of Work	6G-4
Section 6G.04	Modifications To Fulfill Special Needs	6G-4
Section 6G.05	Work Affecting Pedestrian and Bicycle Facilities	6G-5
Section 6G.06	Work Outside of the Shoulder	6G-6
Section 6G.07	Work on the Shoulder with No Encroachment	6G-6
Section 6G.08	Work on the Shoulder with Minor Encroachment	6G-7
Section 6G.09	Work Within the Median	6G-8
Section 6G.10	Work Within the Traveled Way of Two-Lane Highway	6G-8
Section 6G.11	Work Within the Traveled Way of Urban Street	6G-9
Section 6G.12	Work Within the Traveled Way of Multi-Lane, Non-Access Controlled Highway ...	6G-10
Section 6G.13	Detours and Diversions	6G-11
Section 6G.14	Work Within the Traveled Way at an Intersection	6G-12
Section 6G.15	Steel Plate Conspicuity and Warning	6G-13
Section 6G.16	Work Within the Traveled Way at a Roundabout.....	6G-14
Section 6G.17	Work Within the Traveled Way of a Limited Access Highway	6G-15
Section 6G.18	Pull-Off Areas in Limited Access Highway and Expressway Work Zones.....	6G-15
Section 6G.19	Two-Lane, Two-Way Traffic on One Roadway of a Normally Divided Highway	6G-17
Section 6G.20	Crossovers	6G-17
Section 6G.21	Interchanges	6G-18
Section 6G.22	Movable Barriers.....	6G-18
Section 6G.23	Work in the Vicinity of a Railroad Grade Crossing.....	6G-18
Section 6G.24	Slow Roll Temporary Traffic Control Operations	6G-18
Section 6G.25	Installing/Removing Temporary Traffic Control.....	6G-19
Section 6G.26	Temporary Traffic Control During Nighttime Hours	6G-21
Section 6G.27	Work Area Ingress/Egress Considerations.....	6G-22
Section 6G.28	Work During Inclement Weather.....	6G-24

CHAPTER 6H.**TYPICAL APPLICATIONS**

Section 6H.01	Typical Applications	6H-1
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CHAPTER 6I.**CONTROL OF TRAFFIC THROUGH TRAFFIC INCIDENT MANAGEMENT AREAS**

Section 6I.01	General	6I-1
Section 6I.02	Traffic Incident Management Basics	6I-1
Section 6I.03	Traffic Incident Classification	6I-2
Section 6I.04	Responder Personal Safety.....	6I-2
Section 6I.05	Situational Awareness.....	6I-3
Section 6I.06	Initial Scene Response	6I-3
Section 6I.07	Role of VDOT Transportation Operations Center (TOC)	6I-3
Section 6I.08	Initial Traffic Incident Management Temporary Traffic Control	6I-4
Section 6I.09	Major Traffic Incidents (Level 3)	6I-6
Section 6I.10	Intermediate Traffic Incidents (Level 2)	6I-7
Section 6I.11	Minor Traffic Incidents (Level 1)	6I-7
Section 6I.12	Use of Emergency-Vehicle Lighting	6I-8
Section 6I.13	Traffic Incident Management Control Typical Applications	6I-8

APPENDIX A GUIDELINES FOR THE USE OF BARRIER/CHANNELIZING DEVICES IN WORK ZONES

Introduction.....A-1
 Channelizing Device/Barrier Selection Process.....A-2
 Checklist for Guidelines of Channelizing Device/Barrier Selection ProcessA-8
 Barrier Design ConsiderationsA-12
 References and Other Related Materials.....A-18

APPENDIX B WORK ZONE SAFETY CHECKLIST FORM DOCUMENTATION

Work Zone Safety Checklist Form Documentation..... B-1
 Work Zone Safety Checklist Form..... B-3
 Work Zone Safety Checklist Form Explanation Sheet B-5

APPENDIX C GUIDELINES FOR THE USE OF VIRGINIA STATE POLICE IN WORK ZONES

Guidelines for the Use of Virginia State Police in Construction/Maintenance Work Zones..... C-1

APPENDIX D PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) DISPLAYS

Portable Changeable Message Sign (PCMS) Displays.....D-1
 Alternate Routes and Traffic Detours Messages.....D-2
 Display of Future Roadwork.....D-7

FIGURES

CHAPTER 6C. TEMPORARY TRAFFIC CONTROL ELEMENTS

Figure 6C-1 Component Parts of a Temporary Traffic Control Zone..... 6C-3
 Figure 6C-2 Examples of Types of Tapers and Buffer Spaces 6C-9
 Figure 6C-3 Example of a One-Lane, Two-Way Taper..... 6C-10

CHAPTER 6E. FLAGGER CONTROL

Figure 6E-1 Example of the Use of a STOP/SLOW Automated Flagger Assistance Device (AFAD)..... 6E-7
 Figure 6E-2 Example of the Red/Yellow Lens Automated Flagger Assistance Device (AFAD) 6E-9
 Figure 6E-3 Use of Hand Held Signal Devices..... 6E-10
 Figure 6E-4 Flagger Requirements (Sheet 1 of 2) 6E-11
 Figure 6E-4 Flagger Requirements (Sheet 2 of 2) 6E-12

CHAPTER 6F. TEMPORARY TRAFFIC CONTROL ZONE DEVICES

Figure 6F-1 Height and Lateral Location of Signs—Typical Post-Mounted Installations 6F-10
 Figure 6F-2 Regulatory Signs and Plaques in Temporary Traffic Control (Sheet 1 of 2)..... 6F-14
 Figure 6F-2 Regulatory Signs and Plaques in Temporary Traffic Control (Sheet 2 of 2)..... 6F-15
 Figure 6F-3 Warning Signs and Plaques in Temporary Traffic Control Zones (Sheet 1 of 5) 6F-27
 Figure 6F-3 Warning Signs and Plaques in Temporary Traffic Control Zones (Sheet 2 of 5) 6F-28
 Figure 6F-3 Warning Signs and Plaques in Temporary Traffic Control Zones (Sheet 3 of 5) 6F-29
 Figure 6F-3 Warning Signs and Plaques in Temporary Traffic Control Zones (Sheet 4 of 5) 6F-30
 Figure 6F-3 Warning Signs and Plaques in Temporary Traffic Control Zones (Sheet 5 of 5) 6F-31
 Figure 6F-4 Vehicle-Mounted Signs for Temporary Traffic Control 6F-42
 Figure 6F-5 Exit, Pull Off Area, Exit Open, and Detour Signs for Temporary Traffic Control..... 6F-44
 Figure 6F-6 Channelizing Devices for PCMS and Arrow Board and other Trailer Mounted Devices..... 6F-48
 Figure 6F-7 Advanced Warning Arrow Board Display Specifications 6F-50
 Figure 6F-8 Type 3 Barricade Placement Guidelines 6F-56
 Figure 6F-9 Channelizing Devices 6F-60

Figure 6F-10	Construction Pavement Marking for Tapers and Turn Lanes	6F-64
Figure 6F-11	Temporary Pavement Marking and Temporary Pavement Markers for Tapers and Acceleration, Deceleration, and Turn Lanes	6F-65
CHAPTER 6G.	TYPE OF TEMPORARY TRAFFIC CONTROL ZONE ACTIVITIES	
Figure 6G-1	Steel Plate Conspicuity Markings	6G-14
CHAPTER 6H.	TYPICAL APPLICATIONS	
Figure 6H-1	Symbols Used in Typical Traffic Control Figures Application	6H-7
Figure TTC-1.1	Work Beyond the Shoulder Operation	6H-9
Figure TTC-2.0	Blasting Zone Operation	6H-11
Figure TTC-3.1	Mobile or Short-Duration Shoulder Operation	6H-13
Figure TTC-4.1	Stationary Operation on a Shoulder	6H-15
Figure TTC-5.1	Shoulder Operation with Minor Encroachment	6H-17
Figure TTC-6.1	Shoulder Closure with Barrier Operation	6H-19
Figure TTC-7.0	Shoulder Closure with Barrier and Lane Shift Operation	6H-21
Figure TTC-8.0	Pull-Off Areas on Limited Access Highways	6H-23
Figure TTC-9.1	Mowing Operations with Encroachment on Non-Limited Access Roadways	6H-25
Figure TTC-10.1	Non-Licensed Vehicle Operation with Encroachment on Limited Access Highways	6H-27
Figure TTC-11.1	Moving/Mobile Operations on Limited Access Highways (Single Lane Closure).....	6H-29
Figure TTC-12.1	Moving/Mobile Operations on Limited Access Highways (Multiple Lane Closure).....	6H-31
Figure TTC-13.1	Moving/Mobile Operations on a Multi-Lane Roadway	6H-33
Figure TTC-14.1	Moving/Mobile Operations on a Two-Lane Roadway	6H-35
Figure TTC-15.1	Short Duration Operation on a Multi-Lane Roadway	6H-37
Figure TTC-16.1	Outside Lane Closure Operation on a Four-Lane Roadway	6H-39
Figure TTC-17.1	Inside Lane Closure Operation on a Four-Lane Roadway	6H-41
Figure TTC-18.1	Multi-Lane Closure Operation	6H-43
Figure TTC-19.1	Lane Closure Operation with Lane Weave	6H-45
Figure TTC-20.1	Lane Closure Operation with Temporary Traffic Barrier	6H-47
Figure TTC-21.1	Center Turn Lane Closure Operation	6H-49
Figure TTC-22.1	Right Lane Closure Operation on a Three-Lane Roadway	6H-51
Figure TTC-23.1	Lane Closure on a Two-Lane Roadway Using Flaggers.....	6H-53
Figure TTC-24.1	Non-Stationary Operation on a Two-Lane Roadway Using Flaggers	6H-55
Figure TTC-25.1	Lane Closure Operation on Two-Lane Roadway Using Traffic Control Signals	6H-57
Figure TTC-26.1	Lane Closure Operation - Near Side of an Intersection	6H-59
Figure TTC-27.1	Lane Closure Operation - Far Side of an Intersection.....	6H-61
Figure TTC-28.1	Lane Closure Operation in an Intersection.....	6H-63
Figure TTC-29.1	Turn Lane Closure Operation	6H-65
Figure TTC-30.1	Flagging Operation at a Signalized Intersection	6H-67
Figure TTC-31.1	Flagging Operation on a Single Lane Roundabout	6H-69
Figure TTC-32.1	Inside Lane Closure Operation on a Multi-Lane Roundabout	6H-71
Figure TTC-33.1	Outside Lane Closure Operation on a Multi-Lane Roundabout	6H-73
Figure TTC-34.1	Street Closure Operation with Detour.....	6H-75
Figure TTC-35.0	Sidewalk Closure and Bypass Sidewalk Operation	6H-77
Figure TTC-36.1	Crosswalk Closure and Pedestrian Detour Operation	6H-79
Figure TTC-37.1	Work Operation in the Vicinity of an Exit Ramp	6H-81
Figure TTC-38.1	Partial Exit Ramp Closure Operation.....	6H-83
Figure TTC-39.1	Work Operation in the Vicinity of an Entrance Ramp.....	6H-85
Figure TTC-40.1	Multi-Lane Shift Operation.....	6H-87
Figure TTC-41.1	Half Road Closure Operation on a Multi-Lane Roadway	6H-89
Figure TTC-42.1	Interior Lane Closure Operation on a Multi-Lane Roadway	6H-91
Figure TTC-43.1	Road Closure Operation with a Diversion	6H-93

Figure TTC-44.1	Median Cross-Over Operation on a Multi-Lane Roadway	6H-95
Figure TTC-45.1	Total Limited Access Highway Closure Operation	6H-97
Figure TTC-46.1	Limited Access Highway Closure Operation with a Short Term Detour.....	6H-99
Figure TTC-47.1	Limited Access Highway Closure Operation with a Long Term Detour.....	6H-101
Figure TTC-48.1	Road Closure Operation with a Detour.....	6H-103
Figure TTC-49.1	Surveying Operation	6H-105
Figure TTC-50.0	Disruption Operation on a Multi-Lane Roadway.....	6H-107
Figure TTC-51.1	Haul Road Crossing Operation	6H-109
Figure TTC-52.1	Signing for Speed Limit and Fine Signs in Work Zones	6H-111
Figure TTC-53.0	Signing for Project Limits.....	6H-113
Figure TTC-54.0	Motorist Survey Operation on a Two-Lane Roadway	6H-115
Figure TTC-55.1	Eradication of Pavement Markings in a Work Zone.....	6H-117
Figure TTC-56.1	Work in Vicinity of a Highway-Rail Grade Crossing	6H-119
Figure TTC-57.1	End of Day Signing for Partial Paving Operations on a Multi-Lane Roadway	6H-121
Figure TTC-58.1	End of Day Signing for Full Paving Operations on a Multi-Lane Roadway	6H-123
Figure TTC-59.1	End of Day Signing for Paving Operations on a Two-Lane Roadway	6H-125
Figure TTC-60.0	Temporary Pavement Marking and Marker Guidelines.....	6H-127
Figure TTC-61.1	Pre-Storm Treatment Operation.....	6H-129
Figure TTC-62.1	Litter Pick-Up on Limited Access Highways	6H-131
Figure TTC-63.1	Logging Operations.....	6H-133
Figure TTC-64.0	End of Day Signing for Surface Treatment, Slurry Seal and Latex Emulsion Treatment Operations	6H-135
Figure TTC-65.0	Short Duration Patching Operation on a Low Volume Two-Lane Roadway	6H-137
Figure TTC-66.0	Slow-Roll Operation on a Multi-Lane Roadway	6H-139
Figure TTC-67.0	Lane Closure Operation Through an Unsignalized Intersection.....	6H-141

CHAPTER 6I.

CONTROL OF TRAFFIC THROUGH TRAFFIC INCIDENT MANAGEMENT AREAS

Figure 6I-1	Desired Initial Incident Scene Setup and Identification by Travel Lane Numbering	6I-5
Figure 6I-2	Examples of Traffic Incident Management Area Signs.....	6I-6
Figure 6I-3	Symbols Used in Traffic Incident Management Control Figure Applications	6I-9
Figure TIMC-1.1	Incident on Shoulder with Minor Encroachment.....	6I-11
Figure TIMC-2.1	Incident in Outside Lane on Four-Lane Roadway	6I-13
Figure TIMC-3.1	Incident in Inside Lane on Four-Lane Roadway.....	6I-15
Figure TIMC-4.1	Incident in Multiple Lanes on a Multi-Lane Highway.....	6I-17
Figure TIMC-5.1	Incident Blocking a Lane on a Two-Lane Roadway.....	6I-19
Figure TIMC-6.0	Incident Partially Blocking a Ramp	6I-21
Figure TIMC-7.1	Incident Closing a Highway.....	6I-23
Figure TIMC-8.1	Highway Closure Incident with a Temporary Detour.....	6I-25

APPENDIX A

GUIDELINES FOR THE USE OF BARRIER/CHANNELIZING DEVICES IN WORK ZONES

Figure 1	Channelizing Device/Barrier Selection Process Flow Chart.....	A-3
Figure 2	Clear Zone and Drop-Off Requirements.....	A-4
Figure 3a	ROR Frequency Factor Chart for Limited Access Highways.....	A-5
Figure 3b	ROR Frequency Factor Chart for All Other Highways.....	A-6
Figure 4	Types of Barriers, Barricades and Channelizing Devices.....	A-7
Figure 5	Construction Access Technique and Introduced Barrier.....	A-16
Figure 6	Temporary Asphalt Median Detail.....	A-17

TABLES

CHAPTER 6C.

TEMPORARY TRAFFIC CONTROL ELEMENTS

Table 6C-1	Recommended Spacing of Advance Warning Signs.....	6C-4
------------	---	------

Table 6C-2	Length of the Longitudinal Buffer Space.....	6C-5
Table 6C-3	Taper Length Criteria for Temporary Traffic Control Zones	6C-7
Table 6C-4	Taper Length Chart	6C-7
CHAPTER 6E.	FLAGGER CONTROL	
Table 6E-1	Longitudinal Buffer Space	6E-15
CHAPTER 6F.	TEMPORARY TRAFFIC CONTROL ZONE DEVICES	
Table 6F-1	Temporary Traffic Control Zone Sign and Plaque Sizes (Sheet 1 of 6)	6F-4
Table 6F-1	Temporary Traffic Control Zone Sign and Plaque Sizes (Sheet 2 of 6)	6F-5
Table 6F-1	Temporary Traffic Control Zone Sign and Plaque Sizes (Sheet 3 of 6)	6F-6
Table 6F-1	Temporary Traffic Control Zone Sign and Plaque Sizes (Sheet 4 of 6)	6F-7
Table 6F-1	Temporary Traffic Control Zone Sign and Plaque Sizes (Sheet 5 of 6)	6F-8
Table 6F-1	Temporary Traffic Control Zone Sign and Plaque Sizes (Sheet 6 of 6)	6F-9
Table 6F-2	Spacing of Channelizing Devices	6F-54
CHAPTER 6G.	TYPE OF TEMPORARY TRAFFIC CONTROL ZONE ACTIVITIES	
Table 6G-1	Intersection Sight Distance (ISD) for Construction Entrances	6G-23
CHAPTER 6H.	TYPICAL APPLICATIONS	
Table 6H-1	Index to Typical Traffic Control Figures and Notes	6H-2
Table 6H-2	Taper Length (L).....	6H-5
Table 6H-3	Longitudinal Buffer Space	6H-5
Table 6H-4	Channelizing Device Spacing	6H-6
Table 6H-5	Recommended Spacing of Advance Warning Signs.....	6H-6
CHAPTER 6I.	CONTROL OF TRAFFIC THROUGH TRAFFIC INCIDENT MANAGEMENT AREAS	
Table 6I-1	VDOT Traffic Incident Levels.....	6I-2
Table 6I-2	Index to Traffic Incident Management Control Figures and Notes	6I-9
APPENDIX A.	GUIDELINES FOR THE USE OF BARRIER/CHANNELIZING DEVICES IN WORK ZONES	
Table 1	Preliminary Channelizing Device – Barrier Chart	A-8
Table 2	Traffic Barrier Service Concrete Deflection Table	A-13
Table 3	Acceptable Longitudinal Steel Barriers	A-14
Table 4	Acceptable Longitudinal Channelizing Devices	A-15
APPENDIX D.	CHANGEABLE MESSAGE SIGN (CMS) USAGE PROCEDURE	
Table D-1	Portable Changeable Messages for Temporary Traffic Control Applications	D-3
Table D-2	Portable Changeable Messages for Advanced Closures or Road Work	D-7
Table D-2	Unacceptable Portable Changeable Messages	D-7
Table D-4	Abbreviations That Shall be Used Only on Portable Changeable Message Signs.....	D-8
Table D-5	Acceptable Abbreviations	D-10
Table D-6	Unacceptable Abbreviations	D-11

VIRGINIA WORK AREA PROTECTION MANUAL

INTRODUCTION

Standard:

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

Support:

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

Standard:

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

Support:

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

Guidance:

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

Support:

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

Guidance:

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

Support:

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

Standard:

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

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

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

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

Support:

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

Standard:

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

Support:

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

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

Guidance:

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

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

Support:

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

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

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

Standard:

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

Option:

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