The Manual on Uniform Traffic Control Devices (MUTCD) is approved by the Federal Highway Administrator as the National Standard in accordance with Title 23 U.S. Code, Sections 109(d), 114(a), 217, 315, and 402(a), 23 CFR 655, and 49 CFR 1.48(b)(8), 1.48(b)(33), and 1.48(c)(2).

Addresses for Publications Referenced in the MUTCD

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www.aaa.com
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American Association of State Highway and Transportation Officials (AASHTO)
444 North Capitol Street, NW, Suite 249
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www.transportation.org
202-624-5800

American National Standards Institute (ANSI)
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Washington, DC 20036
www.ansi.org
202-293-8020

American Railway Engineering and Maintenance-of-Way Association (AREMA)
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www.arema.org
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Federal Highway Administration Report Center
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report.center@fhwa.dot.gov

Illuminating Engineering Society (IES)
120 Wall Street, Floor 17
New York, NY 10005
www.iesna.org
212-248-5000

Institute of Makers of Explosives
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INTRODUCTION

PART 1. GENERAL

CHAPTER 1A. GENERAL

Section 1A.01 Purpose of Traffic Control Devices ............................................................. 1A-1
Section 1A.02 Principles of Traffic Control Devices ......................................................... 1A-1
Section 1A.03 Design of Traffic Control Devices .............................................................. 1A-2
Section 1A.04 Placement and Operation of Traffic Control Devices .............................. 1A-2
Section 1A.05 Maintenance of Traffic Control Devices .................................................... 1A-2
Section 1A.06 Uniformity of Traffic Control Devices .......................................................... 1A-2
Section 1A.07 Responsibility for Traffic Control Devices .................................................. 1A-2
Section 1A.08 Authority for Placement of Traffic Control Devices ............................... 1A-3
Section 1A.09 Engineering Study and Engineering Judgment ........................................... 1A-4
Section 1A.10 Interpretations, Experimentations, Changes, and Interim Approvals ........... 1A-5
Section 1A.11 Relation to Other Publications ..................................................................... 1A-9
Section 1A.12 Color Code .................................................................................................... 1A-12
Section 1A.13 Definitions of Headings, Words, and Phrases in this Manual ....................... 1A-12
Section 1A.14 Meanings of Acronyms and Abbreviations in this Manual ......................... 1A-26
Section 1A.15 Abbreviations Used on Traffic Control Devices ........................................... 1A-27

PART 2. SIGNS

CHAPTER 2A. GENERAL

Section 2A.01 Function and Purpose of Signs .................................................................... 2A-1
Section 2A.02 Definitions .................................................................................................... 2A-1
Section 2A.03 Standardization of Application .................................................................... 2A-1
Section 2A.04 Excessive Use of Signs .................................................................................. 2A-2
Section 2A.05 Classification of Signs .................................................................................. 2A-2
Section 2A.06 Design of Signs ............................................................................................ 2A-2
Section 2A.07 Retroreflectivity and Illumination ............................................................... 2A-3
Section 2A.08 Maintaining Minimum Retroreflectivity ..................................................... 2A-5
Section 2A.09 Shapes .......................................................................................................... 2A-6
Section 2A.10 Sign Colors .................................................................................................. 2A-7
Section 2A.11 Dimensions ................................................................................................. 2A-9
Section 2A.12 Symbols ....................................................................................................... 2A-9
Section 2A.13 Word Messages ............................................................................................. 2A-10
Section 2A.14 Sign Borders ................................................................................................. 2A-11
Section 2A.15 Enhanced Conspicuity for Standard Signs .................................................. 2A-12
Section 2A.16 Standardization of Location ....................................................................... 2A-12
Section 2A.17 Overhead Sign Installations ....................................................................... 2A-14
Section 2A.18 Mounting Height .......................................................................................... 2A-18
Section 2A.19 Lateral Offset ............................................................................................... 2A-19
Section 2A.20 Orientation .................................................................................................. 2A-20
Section 2A.21 Posts and Mountings .................................................................................... 2A-20
Section 2A.22 Maintenance ............................................................................................... 2A-20
Chapter 2B. Regulatory Signs, Barricades, and Gates

Section 2B.01 Application of Regulatory Signs
Section 2B.02 Design of Regulatory Signs
Section 2B.03 Size of Regulatory Signs
Section 2B.04 Right-of-Way at Intersections
Section 2B.05 STOP Sign (R1-1) and ALL WAY Plaque (R1-3P)
Section 2B.06 STOP Sign Applications
Section 2B.07 Multi-Way Stop Applications
Section 2B.08 YIELD Sign (R1-2)
Section 2B.09 YIELD Sign Applications
Section 2B.10 STOP Sign or YIELD Sign Placement
Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)
Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)
Section 2B.13 Speed Limit Sign (R2-1)
Section 2B.14 Truck Speed Limit Plaque (R2-2P)
Section 2B.15 Night Speed Limit Plaque (R2-3P)
Section 2B.16 Minimum Speed Limit Plaque (R2-4P)
Section 2B.17 Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)
Section 2B.18 Movement Prohibition Signs (R3-1 through R3-4, R3-18, and R3-27)
Section 2B.19 Intersection Lane Control Signs (R3-5 through R3-8)
Section 2B.20 Mandatory Movement Lane Control Signs (R3-5, R3-5a, R3-7, R3-20, and R3-20-DE)
Section 2B.21 Optional Movement Lane Control Sign (R3-6)
Section 2B.22 Advance Intersection Lane Control Signs (R3-8 Series)
Section 2B.23 RIGHT (LEFT) LANE MUST EXIT Sign (R3-33)
Section 2B.24 Two-Way Left Turn Only Signs (R3-9a, R3-9b)
Section 2B.25 BEGIN and END Plaques (R3-9cP, R3-9dP)
Section 2B.26 Reversible Lane Control Signs (R3-9e through R3-9i)
Section 2B.27 Jughandle Signs (R3-23, R3-24, R3-25, and R3-26 Series)
Section 2B.28 DO NOT PASS Sign (R4-1)
Section 2B.29 PASS WITH CARE Sign (R4-2)
Section 2B.30 KEEP RIGHT EXCEPT TO PASS Sign (R4-16) and SLOWER TRAFFIC KEEP RIGHT Sign (R4-3)
Section 2B.31 TRUCKS KEEP RIGHT EXCEPT LEFT TURNS, NO TRUCKS LEFT LANE EXCEPT LEFT TURNS, and TRUCKS USE RIGHT LANE Signs (R4-3-DE, R4-3-DE1, and R4-5)
Section 2B.32 Keep Right and Keep Left Signs (R4-7, R4-8)
Section 2B.33 STAY IN LANE Sign (R4-9)
Section 2B.34 RUNAWAY VEHICLES ONLY Sign (R4-10)
Section 2B.35 Slow Vehicle Turn-Out Signs (R4-12, R4-13, and R4-14)
Section 2B.36 DO NOT DRIVE ON SHOULDER Sign (R4-17) and DO NOT PASS ON SHOULDER Sign (R4-18)
Section 2B.37 DO NOT ENTER Sign (R5-1)
Section 2B.38 WRONG WAY Sign (R5-1a)
Section 2B.39 Selective Exclusion Signs
Section 2B.40 ONE WAY Signs (R6-1, R6-2)
Section 2B.41 Wrong-Way Traffic Control at Interchange Ramps
Section 2B.42 Divided Highway Crossing Signs (R6-3, R6-3a)
Section 2B.43 Roundabout Directional Arrow Signs (R6-4, R6-4a, and R6-4b)
Section 2B.44 Roundabout Circulation Plaque (R6-5P)
Section 2B.45 Examples of Roundabout Signing
Section 2B.46 Parking, Standing, and Stopping Signs (R7 and R8 Series)
Section 2B.47 Design of Parking, Standing, and Stopping Signs

June 2011
Section 2B.48 Placement of Parking, Stopping, and Standing Signs ......................................................... 2B-62
Section 2B.49 Emergency Restriction Signs (R8-4, R8-7, R8-8) ................................................................. 2B-62
Section 2B.50 WALK ON LEFT FACING TRAFFIC and No Hitchhiking Signs (R9-1, R9-4, R9-4a) ................. 2B-63
Section 2B.51 Pedestrian Crossing Signs (R9-2, R9-3) .............................................................................. 2B-65
Section 2B.52 Traffic Signal Pedestrian and Bicycle Actuation Signs (R10-1 through R10-4, and R10-24 through R10-26) ......................................................................................................................... 2B-65
Section 2B.53 Traffic Signal Signs (R10-5 through R10-30) ............................................................................ 2B-67
Section 2B.54 No Turn on Red Signs (R10-11 Series, R10-17a, and R10-30) .................................................... 2B-69
Section 2B.55 Photo Enforced Signs and Plaques (R10-18, R10-18a, R10-19P, R10-19aP) ................. 2B-69
Section 2B.56 Ramp Metering Signs (R10-28 and R10-29) ......................................................................... 2B-70
Section 2B.57 KEEP OFF MEDIAN Sign (R11-1) ...................................................................................... 2B-71
Section 2B.58 ROAD CLOSED Sign (R11-2) and LOCAL TRAFFIC ONLY Signs (R11-3 Series, R11-4) ... 2B-71
Section 2B.59 Weight Limit Signs (R12-1 through R12-5) ......................................................................... 2B-72
Section 2B.60 Weigh Station Signs (R13 Series) .......................................................................................... 2B-72
Section 2B.61 TRUCK ROUTE Sign (R14-1) ............................................................................................... 2B-73
Section 2B.62 Hazardous Material Signs (R14-2, R14-3) .......................................................................... 2B-73
Section 2B.63 National Network Signs (R14-4, R14-5) .............................................................................. 2B-73
Section 2B.64 Headlight Use Signs (R16-5 through R16-11) .................................................................... 2B-74
Section 2B.65 FENDER BENDER Sign (R16-4) .......................................................................................... 2B-74
Section 2B.66 Seat Belt Symbol .................................................................................................................... 2B-75
Section 2B.67 Barricades .............................................................................................................................. 2B-75
Section 2B.68 Gates ....................................................................................................................................... 2B-75
Section 2B.69 MOVE OVER OR REDUCE SPEED FOR STOPPED EMERGENCY AND MAINTENANCE VEHICLES Sign (SR-1-18-DE) ................................................................. 2B-77
Section 2B.70 Engine Compression Brake Prohibition Sign (SR1-19-DE) .................................................. 2B-77
Section 2B.71 Other Regulatory Signs (SR1-11-DE, SR1-12-DE, SR1-14-DE, SR1-15-DE) ................. 2B-78

CHAPTER 2C. WARNING SIGNS AND OBJECT MARKERS

Section 2C.01 Function of Warning Signs .................................................................................................... 2C-1
Section 2C.02 Application of Warning Signs ............................................................................................... 2C-1
Section 2C.03 Design of Warning Signs ........................................................................................................ 2C-1
Section 2C.04 Size of Warning Signs .......................................................................................................... 2C-3
Section 2C.05 Placement of Warning Signs ................................................................................................... 2C-8
Section 2C.06 Horizontal Alignment Warning Signs ..................................................................................... 2C-8
Section 2C.07 Horizontal Alignment Signs (W1-1 through W1-5, W1-11, W1-15) ....................................... 2C-10
Section 2C.08 Advisory Speed Plaque (W13-1P) ......................................................................................... 2C-13
Section 2C.09 Chevron Alignment Sign (W1-8) ............................................................................................ 2C-13
Section 2C.10 Combination Horizontal Alignment/Advisory Speed Signs (W1-1a, W1-2a) ...................... 2C-14
Section 2C.11 Combination Horizontal Alignment/Intersection Signs (W1-10 Series) ............................... 2C-15
Section 2C.12 One-Direction Large Arrow Sign (W1-6) ............................................................................... 2C-15
Section 2C.13 Truck Rollover Warning Sign (W1-13) .................................................................................. 2C-15
Section 2C.14 Advisory Exit and Ramp Speed Signs (W13-2 and W13-3) .................................................... 2C-16
Section 2C.15 Combination Horizontal Alignment/Advisory Exit and Ramp Speed Signs (W13-6 and W13-7) .......................................................................................................................... 2C-16
Section 2C.16 Hill Signs (W7-1, W7-1a) ......................................................................................................... 2C-18
Section 2C.17 Truck Escape Ramp Signs (W7-4 Series) ............................................................................... 2C-19
Section 2C.18 HILL BLOCKS VIEW Sign (W7-6) .......................................................................................... 2C-19
Section 2C.19 ROAD NARROWS Sign (W5-1) .............................................................................................. 2C-19
Section 2C.20 NARROW BRIDGE Sign (W5-2) ............................................................................................ 2C-19
Section 2C.21 ONE LANE BRIDGE Sign (W5-3) ......................................................................................... 2C-20
Section 2C.22 Divided Highway Sign (W6-1) ................................................................................................. 2C-20
Section 2C.23 Divided Highway Ends Sign (W6-2) ....................................................................................... 2C-21
Section 2C.24 Freeway or Expressway Ends Signs (W19 Series) ................................................................. 2C-21

June 2011
TC-4  DE MUTCD

June 2011

CHAPTER 2D.  GUIDE SIGNS—CONVENTIONAL ROADS

Section 2C.25  Double Arrow Sign (W12-1)................................. 2C-21
Section 2C.26  DEAD END/NO OUTLET Signs (W14-1, W14-1a, W14-2, W14-2a)......................... 2C-21
Section 2C.27  Low Clearance Signs (W12-2 and W12-2a) ............................................................... 2C-22
Section 2C.28  BUMP and DIP Signs (W8-1, W8-2)........................................................................... 2C-22
Section 2C.29  SPEED HUMP Sign (W17-1) .................................................................................... 2C-24
Section 2C.30  PAVEMENT ENDS Sign (W8-3)................................................................................... 2C-24
Section 2C.31  Shoulder Signs (W8-4, W8-9, W8-17, W8-23, and W8-25)........................................... 2C-24
Section 2C.32  Surface Condition Signs (W8-5, W8-7, W8-8, W8-11, W8-13, and W8-14)............ 2C-25
Section 2C.33  Warning Signs and Plaques for Motorcyclists (W8-15, W8-15P, and W8-16) .... 2C-25
Section 2C.34  NO CENTER LINE Sign (W8-12).................................................................................. 2C-25
Section 2C.35  Weather Condition Signs (W8-18, W8-19, W8-21, and W8-22)............................... 2C-25
Section 2C.36  Advance Traffic Control Signs (W3-1, W3-2, W3-3, W3-3-D, W3-3P-D, W3-4)..... 2C-26
Section 2C.37  Advance Ramp Control Sign Signs (W3-7 and W3-8) ............................................. 2C-27
Section 2C.38  Reduced Speed Limit Ahead Signs (W3-5, W3-5-D) .................................................. 2C-27
Section 2C.39  DRAW BRIDGE Sign (W3-6) ....................................................................................... 2C-28
Section 2C.40  Merge Signs (W4-1, W4-5).......................................................................................... 2C-28
Section 2C.41  Added Lane Signs (W4-3, W4-6).................................................................................. 2C-29
Section 2C.42  Lane Ends Signs (W4-2, W9-1, W9-2, W9-2-D)........................................................... 2C-29
Section 2C.43  RIGHT (LEFT) LANE EXIT ONLY AHEAD Sign (W9-7)........................................... 2C-30
Section 2C.44  Two-Way Traffic Sign (W6-3) ..................................................................................... 2C-30
Section 2C.45  NO PASSING ZONE Sign (W14-3) .............................................................................. 2C-30
Section 2C.46  Intersection Warning Signs (W2-1 through W2-8, W21-9-D, W21-9P-D, W21-10-D) .. 2C-31
Section 2C.47  Two-Direction Large Arrow Sign (W1-7)..................................................................... 2C-32
Section 2C.48  Traffic Signal Signs (W25-1, W25-2)............................................................................. 2C-32
Section 2C.51  Playground Sign (W15-1).............................................................................................. 2C-35
Section 2C.52  NEW TRAFFIC PATTERN AHEAD Sign (W23-2)..................................................... 2C-36
Section 2C.53  Use of Supplemental Warning Plaques........................................................................ 2C-37
Section 2C.54  Design of Supplemental Warning Plaques................................................................. 2C-38
Section 2C.55  Distance Plaques (W16-2 Series, W16-3 Series, W16-4P, W7-3aP).......................... 2C-38
Section 2C.56  Supplemental Arrow Plaques (W16-5P, W16-6P)....................................................... 2C-38
Section 2C.57  Hill-Related Plaques (W7-2 Series)............................................................................... 2C-38
Section 2C.58  Advance Street Name Plaque (W16-8P, W16-8aP)...................................................... 2C-38
Section 2C.59  CROSS TRAFFIC DOES NOT STOP Plaque (W4-4P).................................................. 2C-39
Section 2C.60  SHARE THE ROAD Plaque (W16-1P)......................................................................... 2C-39
Section 2C.61  Photo Enforced Plaque (W16-10P)............................................................................. 2C-39
Section 2C.62  NEW and NEW TRAFFIC PATTERN Plaques (W16-15P and W23-2P-D)............ 2C-39
Section 2C.62A  STRICTLY ENFORCED Plaque (W21-12P-D).................................................... 2C-40
Section 2C.63  Object Marker Design and Placement Height............................................................. 2C-40
Section 2C.64  Object Markers for Obstructions Within the Roadway ................................................ 2C-41
Section 2C.65  Object Markers for Obstructions Adjacent to the Roadway.................................... 2C-42
Section 2C.66  Object Markers for Ends of Roadways.......................................................................... 2C-42

CHAPTER 2D.  GUIDE SIGNS—CONVENTIONAL ROADS

Section 2D.01  Scope of Conventional Road Guide Sign Standards .................................................. 2D-1
Section 2D.02  Application .................................................................................................................. 2D-1
Section 2D.03  Color, Retroreflection, and Illumination ....................................................................... 2D-1
Section 2D.04  Size of Signs .................................................................................................................. 2D-2
Section 2D.05  Lettering Style ............................................................................................................... 2D-3

June 2011
<table>
<thead>
<tr>
<th>Section 2D.06</th>
<th>Size of Lettering</th>
<th>2D-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 2D.07</td>
<td>Amount of Legend</td>
<td>2D-4</td>
</tr>
<tr>
<td>Section 2D.08</td>
<td>Arrows</td>
<td>2D-5</td>
</tr>
<tr>
<td>Section 2D.09</td>
<td>Numbered Highway Systems</td>
<td>2D-7</td>
</tr>
<tr>
<td>Section 2D.10</td>
<td>Route Signs and Auxiliary Signs</td>
<td>2D-7</td>
</tr>
<tr>
<td>Section 2D.11</td>
<td>Design of Route Signs</td>
<td>2D-7</td>
</tr>
<tr>
<td>Section 2D.12</td>
<td>Design of Route Sign Auxiliaries</td>
<td>2D-9</td>
</tr>
<tr>
<td>Section 2D.13</td>
<td>Junction Auxiliary Sign (M2-1)</td>
<td>2D-10</td>
</tr>
<tr>
<td>Section 2D.14</td>
<td>Combination Junction Sign (M2-2)</td>
<td>2D-10</td>
</tr>
<tr>
<td>Section 2D.15</td>
<td>Cardinal Direction Auxiliary Signs (M3-1 through M3-4)</td>
<td>2D-11</td>
</tr>
<tr>
<td>Section 2D.16</td>
<td>Auxiliary Signs for Alternative Routes (M4 Series)</td>
<td>2D-11</td>
</tr>
<tr>
<td>Section 2D.17</td>
<td>ALTERNATE Auxiliary Signs (M4-1, M4-1a)</td>
<td>2D-11</td>
</tr>
<tr>
<td>Section 2D.18</td>
<td>BY-PASS Auxiliary Sign (M4-2)</td>
<td>2D-11</td>
</tr>
<tr>
<td>Section 2D.19</td>
<td>BUSINESS Auxiliary Sign (M4-3)</td>
<td>2D-11</td>
</tr>
<tr>
<td>Section 2D.20</td>
<td>TRUCK Auxiliary Sign (M4-4)</td>
<td>2D-11</td>
</tr>
<tr>
<td>Section 2D.21</td>
<td>TO Auxiliary Sign (M4-5)</td>
<td>2D-12</td>
</tr>
<tr>
<td>Section 2D.22</td>
<td>END Auxiliary Sign (M4-6)</td>
<td>2D-12</td>
</tr>
<tr>
<td>Section 2D.23</td>
<td>BEGIN Auxiliary Sign (M4-14)</td>
<td>2D-12</td>
</tr>
<tr>
<td>Section 2D.24</td>
<td>TEMPORARY Auxiliary Signs (M4-7, M4-7a)</td>
<td>2D-12</td>
</tr>
<tr>
<td>Section 2D.25</td>
<td>Temporary Detour and Auxiliary Signs</td>
<td>2D-12</td>
</tr>
<tr>
<td>Section 2D.26</td>
<td>Advance Turn Arrow Auxiliary Signs (M5-1, M5-2, and M5-3)</td>
<td>2D-13</td>
</tr>
<tr>
<td>Section 2D.27</td>
<td>Lane Designation Auxiliary Signs (M5-4, M5-5, and M5-6)</td>
<td>2D-13</td>
</tr>
<tr>
<td>Section 2D.28</td>
<td>Directional Arrow Auxiliary Signs (M6 Series)</td>
<td>2D-14</td>
</tr>
<tr>
<td>Section 2D.29</td>
<td>Route Sign Assemblies</td>
<td>2D-14</td>
</tr>
<tr>
<td>Section 2D.30</td>
<td>Junction Assembly</td>
<td>2D-19</td>
</tr>
<tr>
<td>Section 2D.31</td>
<td>Advance Route Turn Assembly</td>
<td>2D-19</td>
</tr>
<tr>
<td>Section 2D.32</td>
<td>Directional Assembly</td>
<td>2D-20</td>
</tr>
<tr>
<td>Section 2D.33</td>
<td>Combination Lane-Use/Destination Overhead Guide Sign (D15-1)</td>
<td>2D-20</td>
</tr>
<tr>
<td>Section 2D.34</td>
<td>Confirming or Reassurance Assemblies</td>
<td>2D-21</td>
</tr>
<tr>
<td>Section 2D.35</td>
<td>Trailblazer Assembly</td>
<td>2D-21</td>
</tr>
<tr>
<td>Section 2D.36</td>
<td>Destination and Distance Signs</td>
<td>2D-22</td>
</tr>
<tr>
<td>Section 2D.37</td>
<td>Destination Signs (D1 Series)</td>
<td>2D-22</td>
</tr>
<tr>
<td>Section 2D.38</td>
<td>Destination Signs at Circular Intersections</td>
<td>2D-23</td>
</tr>
<tr>
<td>Section 2D.39</td>
<td>Destination Signs at Jughandles</td>
<td>2D-27</td>
</tr>
<tr>
<td>Section 2D.40</td>
<td>Location of Destination Signs</td>
<td>2D-27</td>
</tr>
<tr>
<td>Section 2D.41</td>
<td>Distance Signs (D2 Series)</td>
<td>2D-27</td>
</tr>
<tr>
<td>Section 2D.42</td>
<td>Location of Distance Signs</td>
<td>2D-28</td>
</tr>
<tr>
<td>Section 2D.43</td>
<td>Street Name Signs (D3-1, D3-1-DEL, D3-1a)</td>
<td>2D-28</td>
</tr>
<tr>
<td>Section 2D.44</td>
<td>Advance Street Name Signs (D3-2)</td>
<td>2D-30</td>
</tr>
<tr>
<td>Section 2D.45</td>
<td>Signing on Conventional Roads on Approaches to Interchanges</td>
<td>2D-31</td>
</tr>
<tr>
<td>Section 2D.46</td>
<td>Freeway Entrance Signs (D13-3 and D13-3a)</td>
<td>2D-39</td>
</tr>
<tr>
<td>Section 2D.47</td>
<td>Parking Area Guide Sign (D4-1)</td>
<td>2D-39</td>
</tr>
<tr>
<td>Section 2D.48</td>
<td>PARK - RIDE Sign (D4-2)</td>
<td>2D-39</td>
</tr>
<tr>
<td>Section 2D.49</td>
<td>Weigh Station Signing (D8 Series)</td>
<td>2D-40</td>
</tr>
<tr>
<td>Section 2D.50</td>
<td>Community Wayfinding Signs</td>
<td>2D-42</td>
</tr>
<tr>
<td>Section 2D.51</td>
<td>Truck, Passing, or Climbing Lane Signs (D17-1 and D17-2)</td>
<td>2D-48</td>
</tr>
<tr>
<td>Section 2D.52</td>
<td>Slow Vehicle Turn-Out Sign (D17-7)</td>
<td>2D-48</td>
</tr>
<tr>
<td>Section 2D.53</td>
<td>Signing of Named Highways</td>
<td>2D-49</td>
</tr>
<tr>
<td>Section 2D.54</td>
<td>Crossover Signs (D13-1 and D13-2)</td>
<td>2D-49</td>
</tr>
<tr>
<td>Section 2D.55</td>
<td>National Scenic Byways Signs (D6-4, D6-4a)</td>
<td>2D-49</td>
</tr>
</tbody>
</table>

**CHAPTER 2E.** GUIDE SIGNS—FREEWAYS AND EXPRESSWAYS

<table>
<thead>
<tr>
<th>Section 2E.01</th>
<th>Scope of Freeway and Expressway Guide Sign Standards</th>
<th>2E-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 2E.02</td>
<td>Freeway and Expressway Signing Principles</td>
<td>2E-1</td>
</tr>
<tr>
<td>Section 2E.03</td>
<td>Guide Sign Classification</td>
<td>2E-1</td>
</tr>
</tbody>
</table>
Section 2E.04 General .......................................................... 2E-2
Section 2E.05 Color of Guide Signs ........................................ 2E-2
Section 2E.06 Retroreflection or Illumination ..................... 2E-2
Section 2E.07 Characteristics of Urban Signing .................. 2E-2
Section 2E.08 Characteristics of Rural Signing ..................... 2E-3
Section 2E.09 Signing of Named Highways ......................... 2E-3
Section 2E.10 Amount of Legend on Guide Signs ............... 2E-3
Section 2E.11 Number of Signs at an Overhead Installation and Sign Spreading 2E-3
Section 2E.12 Pull-Through Signs (E6-2, E6-2a) .................. 2E-4
Section 2E.13 Designation of Destinations ......................... 2E-5
Section 2E.14 Size and Style of Letters and Signs ................. 2E-5
Section 2E.15 Interline and Edge Spacing ......................... 2E-6
Section 2E.16 Sign Borders ................................................ 2E-6
Section 2E.17 Abbreviations ............................................... 2E-15
Section 2E.18 Symbols ...................................................... 2E-15
Section 2E.19 Arrows for Interchange Guide Signs ............. 2E-15
Section 2E.20 Signing for Option Lanes at Splits and Multi-Lane Exits 2E-16
Section 2E.21 Design of Overhead Arrow-per-Lane Guide Signs for Option Lanes 2E-16
Section 2E.22 Design of Freeway and Expressway Diagrammatic Guide Signs for Option Lanes 2E-16
Section 2E.23 Signing for Intermediate and Minor Interchange Multi-Lane Exits with an Option Lane 2E-26
Section 2E.24 Signing for Interchange Lane Drops ............... 2E-29
Section 2E.25 Overhead Sign Installations ......................... 2E-29
Section 2E.26 Lateral Offset ............................................. 2E-30
Section 2E.27 Route Signs and Trailblazer Assemblies .......... 2E-34
Section 2E.28 Eisenhower Interstate System Signs (M1-10, M1-10a) 2E-35
Section 2E.29 Signs for Intersections at Grade ..................... 2E-35
Section 2E.30 Interchange Guide Signs ............................... 2E-35
Section 2E.31 Interchange Exit Numbering ......................... 2E-36
Section 2E.32 Interchange Classification ............................. 2E-37
Section 2E.33 Advance Guide Signs ................................... 2E-37
Section 2E.34 Next Exit Plaques ......................................... 2E-41
Section 2E.35 Other Supplemental Guide Signs .................. 2E-43
Section 2E.36 Exit Direction Signs ...................................... 2E-44
Section 2E.37 Exit Gore Signs (E5-1 Series) ......................... 2E-47
Section 2E.38 Post-Interchange Signs ................................. 2E-48
Section 2E.39 Post-Interchange Distance Signs .................... 2E-48
Section 2E.40 Interchange Sequence Signs ......................... 2E-49
Section 2E.41 Community Interchanges Identification Signs 2E-51
Section 2E.42 NEXT XX EXITS Sign ................................. 2E-51
Section 2E.43 Signing by Type of Interchange ....................... 2E-52
Section 2E.44 Freeway-to-Freeway Interchange .................... 2E-52
Section 2E.45 Cloverleaf Interchange ................................ 2E-55
Section 2E.46 Cloverleaf Interchange with Collector-Distributor Roadways 2E-55
Section 2E.47 Partial Cloverleaf Interchange ........................ 2E-58
Section 2E.48 Diamond Interchange .................................. 2E-58
Section 2E.49 Diamond Interchange in Urban Area .............. 2E-61
Section 2E.50 Closely-Spaced Interchanges ......................... 2E-61
Section 2E.51 Minor Interchange ........................................ 2E-61
Section 2E.52 Signing on Conventional Road Approaches and Connecting Roadways 2E-61
Section 2E.53 Wrong-Way Traffic Control at Interchange Ramps 2E-61
Section 2E.54 Weigh Station Signing ................................. 2E-63

CHAPTER 2F. TOLL ROAD SIGNS

Section 2F.01 Scope .......................................................... 2F-1

June 2011
CHAPTER 2G. PREFERENTIAL AND MANAGED LANE SIGNS

Section 2G.01 Scope ........................................................................................................... 2G-1
Section 2G.02 Sizes of Preferential and Managed Lane Signs ............................................. 2G-1
Section 2G.03 Regulatory Signs for Preferential Lanes – General ........................................... 2G-1
Section 2G.04 Preferential Lane Vehicle Occupancy Definition Regulatory Signs (R3-10 Series
and R3-13 Series) ............................................................................................................. 2G-7
Section 2G.05 Preferential Lane Periods of Operation Regulatory Signs (R3-11 Series and R3-14
Series).............................................................................................................................. 2G-8
Section 2G.06 Preferential Lane Advance Regulatory Signs (R3-12, R3-12e, R3-12f, R3-15, R3-15a,
and R3-15d)......................................................................................................................... 2G-12
Section 2G.07 Preferential Lane Ends Regulatory Signs (R3-12a, R3-12b, R3-12c, R3-12d, R3-12g,
R3-12h, R3-15b, R3-15c, and R3-15e) ............................................................................... 2G-12
Section 2G.08 Warning Signs on Median Barriers for Preferential Lanes ................................. 2G-12
Section 2G.09 High-Occupancy Vehicle (HOV) Plaque (W16-11P) ........................................... 2G-13
Section 2G.10 Preferential Lane Guide Signs – General .......................................................... 2G-13
Section 2G.11 Guide Signs for Initial Entry Points to Preferential Lanes ................................. 2G-17
Section 2G.12 Guide Signs for Intermediate Entry Points to Preferential Lanes ....................... 2G-18
Section 2G.13 Guide Signs for Egress from Preferential Lanes to General-Purpose Lanes .......... 2G-20
Section 2G.14 Guide Signs for Direct Entrances to Preferential Lanes from Another Highway .... 2G-23
Section 2G.15 Guide Signs for Direct Exits from Preferential Lanes to Another Highway ......... 2G-26
Section 2G.16 Signs for Priced Managed Lanes – General ......................................................... 2G-29
Section 2G.17 Regulatory Signs for Priced Managed Lanes .................................................... 2G-30
Section 2G.18 Guide Signs for Priced Managed Lanes ............................................................. 2G-32

CHAPTER 2H. GENERAL INFORMATION SIGNS

Section 2H.01 Sizes of General Information Signs ................................................................. 2H-1
Section 2H.02 General Information Signs (I Series) .............................................................. 2H-1
Section 2H.03 Traffic Signal Speed Sign (I1-1) ....................................................................... 2H-3
Section 2H.04 Miscellaneous Information Signs .................................................................... 2H-4
Section 2H.05 Reference Location Signs (D10-1 through D10-3) and Intermediate Reference
Location Signs (D10-1a through D10-3a)........................................................................... 2H-4
Section 2H.06 Enhanced Reference Location Signs (D10-4, D10-5) ...................................... 2H-6
Section 2H.07 Auto Tour Route Signs .................................................................................... 2H-7
Section 2H.08 Acknowledgment Signs .................................................................................. 2H-8

CHAPTER 2I. GENERAL SERVICE SIGNS

June 2011
Section 2I.01  Sizes of General Service Signs .......................................................... 2I-1
Section 2I.02  General Service Signs for Conventional Roads ........................................ 2I-2
Section 2I.03  General Service Signs for Freeways and Expressways .............................. 2I-5
Section 2I.04  Interstate Oasis Signing ........................................................................... 2I-8
Section 2I.05  Rest Area and Other Roadside Area Signs .............................................. 2I-10
Section 2I.06  Brake Check Area Signs (D5-13 and D5-14) ........................................... 2I-11
Section 2I.07  Chain-Up Area Signs (D5-15 and D5-16) .............................................. 2I-11
Section 2I.08  Tourist Information and Welcome Center Signs ..................................... 2I-11
Section 2I.09  Radio Information Signing ...................................................................... 2I-13
Section 2I.10  TRAVEL INFO CALL 511 Signs (D12-5 and D12-5a) ............................. 2I-15
Section 2I.11  Carpool and Ridesharing Signing ............................................................ 2I-15

CHAPTER 2J.  SPECIFIC SERVICE SIGNS

Section 2J.01  Eligibility ......................................................................................... 2J-1
Section 2J.02  Application ..................................................................................... 2J-3
Section 2J.03  Logos and Logo Sign Panels ............................................................. 2J-3
Section 2J.04  Number and Size of Signs and Logo Sign Panels ............................... 2J-8
Section 2J.05  Size of Lettering .............................................................................. 2J-8
Section 2J.06  Signs at Interchanges ....................................................................... 2J-9
Section 2J.07  Single-Exit Interchanges ................................................................. 2J-9
Section 2J.08  Double-Exit Interchanges .............................................................. 2J-9
Section 2J.09  Specific Service Trailblazer Signs ..................................................... 2J-9
Section 2J.10  Signs at Intersections ....................................................................... 2J-10
Section 2J.11  Signing Policy .................................................................................. 2J-11

CHAPTER 2K.  TOURIST-ORIENTED DIRECTIONAL SIGNS

Section 2K.01  Purpose and Application ................................................................. 2K-1
Section 2K.02  Design .......................................................................................... 2K-1
Section 2K.03  Style and Size of Lettering .............................................................. 2K-2
Section 2K.04  Arrangement and Size of Signs ......................................................... 2K-2
Section 2K.05  Advance Signs ............................................................................... 2K-5
Section 2K.06  Sign Locations ............................................................................... 2K-5
Section 2K.07  State Policy .................................................................................. 2K-6

CHAPTER 2L.  CHANGEABLE MESSAGE SIGNS

Section 2L.01  Description of Changeable Message Signs ........................................ 2L-1
Section 2L.02  Applications of Changeable Message Signs ....................................... 2L-1
Section 2L.03  Legibility and Visibility of Changeable Message Signs ....................... 2L-2
Section 2L.04  Design Characteristics of Changeable Message Signs ....................... 2L-2
Section 2L.05  Message Length and Units of Information ......................................... 2L-4
Section 2L.06  Installation of Permanent Changeable Message Signs ....................... 2L-5

CHAPTER 2M.  RECREATIONAL AND CULTURAL INTEREST AREA SIGNS

Section 2M.01  Scope .......................................................................................... 2M-1
Section 2M.02  Application of Recreational and Cultural Interest Area Signs .............. 2M-1
Section 2M.03  Regulatory and Warning Signs ........................................................ 2M-1
Section 2M.04  General Design Requirements for Recreational and Cultural Interest Area Symbol Guide Signs ......................................................................................................................... 2M-2
Section 2M.05  Symbol Sign Sizes ......................................................................... 2M-2
Section 2M.06  Use of Educational Plaques ............................................................ 2M-2
Section 2M.07  Use of Prohibitive Circle and Diagonal Slash for Non-Road Applications ................................................................................................................................. 2M-2
Section 2M.08  Placement of Recreational and Cultural Interest Area Symbol Signs ................................................................................................................................. 2M-4
Section 2M.09  Destination Guide Signs ................................................................... 2M-12
Section 2M.10  Memorial or Dedication Signing ........................................................ 2M-13

June 2011
CHAPTER 2N.  EMERGENCY MANAGEMENT SIGNING

Section 2N.01  Emergency Management ................................................................. 2N-1
Section 2N.02  Design of Emergency Management Signs ................................. 2N-1
Section 2N.03  Evacuation Route Signs (EM-1, EM-1-DE, and EM-1a) ............... 2N-2
Section 2N.04  AREA CLOSED Sign (EM-2) .......................................................... 2N-3
Section 2N.05  TRAFFIC CONTROL POINT Sign (EM-3) ..................................... 2N-3
Section 2N.06  MAINTAIN TOP SAFE SPEED Sign (EM-4) ............................... 2N-4
Section 2N.07  ROAD (AREA) USE PERMIT REQUIRED FOR THRU TRAFFIC Sign (EM-5) .... 2N-4
Section 2N.08  Emergency Aid Center Signs (EM-6 Series) ............................... 2N-4
Section 2N.09  Shelter Directional Signs (EM-7 Series) ..................................... 2N-5
Section 2N.10  Emergency Siren Sign (EM-7-DE) ............................................. 2N-6

PART 3.  MARKINGS

CHAPTER 3A.  GENERAL

Section 3A.01  Functions and Limitations ............................................................. 3A-1
Section 3A.02  Standardization of Application .................................................... 3A-1
Section 3A.03  Maintaining Minimum Pavement Marking Retroreflectivity ......... 3A-1
Section 3A.04  Materials ..................................................................................... 3A-1
Section 3A.05  Colors ......................................................................................... 3A-2
Section 3A.06  Functions, Widths, and Patterns of Longitudinal Pavement Markings .... 3A-2

CHAPTER 3B.  PAVEMENT AND CURB MARKINGS

Section 3B.01  Yellow Center Line Pavement Markings and Warrants ................. 3B-1
Section 3B.02  No-Passing Zone Pavement Markings and Warrants .................. 3B-4
Section 3B.03  Other Yellow Longitudinal Pavement Markings ....................... 3B-8
Section 3B.04  White Lane Line Pavement Markings and Warrants .................. 3B-10
Section 3B.05  Other White Longitudinal Pavement Markings ....................... 3B-35
Section 3B.06  Edge Line Pavement Markings ................................................... 3B-36
Section 3B.07  Warrants for Use of Edge Lines ................................................... 3B-37
Section 3B.08  Extensions Through Intersections or Interchanges ..................... 3B-37
Section 3B.09  Lane-Reduction Transition Markings ....................................... 3B-40
Section 3B.10  Approach Markings for Obstructions ....................................... 3B-45
Section 3B.11  Raised Pavement Markers – General ........................................ 3B-48
Section 3B.12  Raised Pavement Markers as Vehicle Positioning Guides with Other Longitudinal Markings ................................................................. 3B-57
Section 3B.13  Raised Pavement Markers Supplementing Other Markings ....... 3B-57
Section 3B.14  Raised Pavement Markers Substituting for Pavement Markings .... 3B-58
Section 3B.15  Transverse Markings ................................................................. 3B-58
Section 3B.16  Stop and Yield Lines ................................................................. 3B-59
Section 3B.17  Do Not Block Intersection Markings ....................................... 3B-61
Section 3B.18  Crosswalk Markings ................................................................. 3B-62
Section 3B.19  Parking Space Markings ............................................................ 3B-64
Section 3B.20  Pavement Word, Symbol, and Arrow Markings ....................... 3B-67
Section 3B.21  Speed Measurement Markings .................................................. 3B-74
Section 3B.22  Speed Reduction Markings ....................................................... 3B-74
Section 3B.23  Curb Markings .......................................................................... 3B-75
Section 3B.24  Chevron and Diagonal Crosshatch Markings ............................ 3B-76
Section 3B.25  Speed Hump Markings .............................................................. 3B-77
Section 3B.26  Advance Speed Hump Markings ............................................. 3B-77

CHAPTER 3C.  ROUNDABOUT MARKINGS

Section 3C.01  General ....................................................................................... 3C-1
Section 3C.02  White Lane Line Pavement Markings for Roundabouts ............... 3C-1

June 2011
Section 4C.03   Warrant 2, Four-Hour Vehicular Volume ................................................................. 4C-4
Section 4C.04   Warrant 3, Peak Hour ......................................................................................... 4C-5
Section 4C.05   Warrant 4, Pedestrian Volume ........................................................................... 4C-6
Section 4C.06   Warrant 5, School Crossing ............................................................................... 4C-7
Section 4C.07   Warrant 6, Coordinated Signal System ............................................................... 4C-8
Section 4C.08   Warrant 7, Crash Experience ............................................................................ 4C-9
Section 4C.09   Warrant 8, Roadway Network .......................................................................... 4C-10
Section 4C.10  Warrant 9, Intersection Near a Grade Crossing .................................................... 4C-11

CHAPTER 4D.  TRAFFIC CONTROL SIGNAL FEATURES

Section 4D.01   General ............................................................................................................ 4D-1
Section 4D.02   Responsibility for Operation and Maintenance ...................................................... 4D-2
Section 4D.03   Provisions for Pedestrians ................................................................................. 4D-3
Section 4D.04   Meaning of Vehicular Signal Indications .............................................................. 4D-4
Section 4D.05   Application of Steady Signal Indications ............................................................ 4D-5
Section 4D.06   Signal Indications – Design, Illumination, Color, and Shape ................................. 4D-8
Section 4D.07   Size of Vehicular Signal Indications .................................................................. 4D-9
Section 4D.08   Positions of Signal Indications Within a Signal Face – General ......................... 4D-10
Section 4D.09   Positions of Signal Indications Within a Vertical Signal Face ................................. 4D-11
Section 4D.10   Positions of Signal Indications Within a Horizontal Signal Face ......................... 4D-12
Section 4D.11   Number of Signal Faces on an Approach ............................................................ 4D-13
Section 4D.12   Visibility, Aiming, and Shielding of Signal Faces .................................................. 4D-15
Section 4D.13   Lateral Positioning of Signal Faces ...................................................................... 4D-17
Section 4D.14   Longitudinal Positioning of Signal Faces .............................................................. 4D-18
Section 4D.15   Mounting Height of Signal Faces ....................................................................... 4D-18
Section 4D.16   Lateral Offset (Clearance) of Signal Faces ............................................................ 4D-19
Section 4D.17   Signal Indications for Left-Turn Movements – General ....................................... 4D-20
Section 4D.18   Signal Indications for Permissive Only Mode Left-Turn Movements .................... 4D-21
Section 4D.19   Signal Indications for Protected Only Mode Left-Turn Movements ..................... 4D-24
Section 4D.20   Signal Indications for Protected/Permissive Mode Left-Turn Movements ............ 4D-26
Section 4D.21   Signal Indications for Right-Turn Movements – General ..................................... 4D-29
Section 4D.22   Signal Indications for Permissive Only Mode Right-Turn Movements .................... 4D-31
Section 4D.23   Signal Indications for Protected Only Mode Right-Turn Movements .................... 4D-34
Section 4D.24   Signal Indications for Protected/Permissive Mode Right-Turn Movements ............ 4D-37
Section 4D.25   Signal Indications for Approaches With Shared Left-Turn/Right-Turn Lanes and No
Through Movement ........................................................................................................... 4D-41
Section 4D.26   Yellow Change and Red Clearance Intervals .......................................................... 4D-45
Section 4D.27   Preemption and Priority Control of Traffic Control Signals .................................... 4D-46
Section 4D.28   Flashing Operation of Traffic Control Signals – General ...................................... 4D-48
Section 4D.29   Flashing Operation – Transition Into Flashing Mode ............................................ 4D-48
Section 4D.30   Flashing Operation – Signal Indications During Flashing Mode............................... 4D-49
Section 4D.31   Flashing Operation – Transition Out of Flashing Mode ........................................... 4D-49
Section 4D.32   Temporary and Portable Traffic Control Signals ..................................................... 4D-50
Section 4D.33   Lateral Offset of Signal Supports and Cabinets ...................................................... 4D-50
Section 4D.34   Use of Signs at Signalized Locations .................................................................. 4D-51
Section 4D.35   Use of Pavement Markings at Signalized Locations ................................................ 4D-51

CHAPTER 4E.  PEDESTRIAN CONTROL FEATURES

Section 4E.01   Pedestrian Signal Heads ..................................................................................... 4E-1
Section 4E.02   Meaning of Pedestrian Signal Head Indications ...................................................... 4E-1
Section 4E.03   Application of Pedestrian Signal Heads ................................................................. 4E-1
Section 4E.04   Size, Design, and Illumination of Pedestrian Signal Head Indications ....................... 4E-2
Section 4E.05   Location and Height of Pedestrian Signal Heads ..................................................... 4E-3
Section 4E.06   Pedestrian Intervals and Signal Phases ................................................................. 4E-3
Section 4E.07   Countdown Pedestrian Signals .............................................................................. 4E-6

June 2011
Section 4E.08  Pedestrian Detectors ........................................................................................................... 4E-7
Section 4E.09  Accessible Pedestrian Signals and Detectors – General .............................................. 4E-11
Section 4E.10  Accessible Pedestrian Signals and Detectors – Location .............................................. 4E-12
Section 4E.11  Accessible Pedestrian Signals and Detectors – Walk Indications .................................. 4E-13
Section 4E.12  Accessible Pedestrian Signals and Detectors – Tactile Arrows and Locator Tones .......... 4E-15
Section 4E.13  Accessible Pedestrian Signals and Detectors – Extended Pushbutton Press Features .... 4E-15

CHAPTER 4F.  PEDESTRIAN HYBRID BEACONS

Section 4F.01  Application of Pedestrian Hybrid Beacons ................................................................. 4F-1
Section 4F.02  Design of Pedestrian Hybrid Beacons ......................................................................... 4F-1
Section 4F.03  Operation of Pedestrian Hybrid Beacons .................................................................... 4F-4

CHAPTER 4G.  TRAFFIC CONTROL SIGNALS AND HYBRID BEACONS FOR EMERGENCY-VEHICLE ACCESS

Section 4G.01  Application of Emergency-Vehicle Traffic Control Signals and Hybrid Beacons ......... 4G-1
Section 4G.02  Design of Emergency-Vehicle Traffic Control Signals .............................................. 4G-1
Section 4G.03  Operation of Emergency-Vehicle Traffic Control Signals ........................................ 4G-2
Section 4G.04  Emergency-Vehicle Hybrid Beacons ........................................................................... 4G-2

CHAPTER 4H.  TRAFFIC CONTROL SIGNALS FOR ONE-LANE, TWO-WAY FACILITIES

Section 4H.01  Application of Traffic Control Signals for One-Lane, Two-Way Facilities ...................... 4H-1
Section 4H.02  Design of Traffic Control Signals for One-Lane, Two-Way Facilities .......................... 4H-1
Section 4H.03  Operation of Traffic Control Signals for One-Lane, Two-Way Facilities ...................... 4H-1

CHAPTER 4I.  TRAFFIC CONTROL SIGNALS FOR FREEWAY ENTRANCE RAMPS

Section 4I.01  Application of Freeway Entrance Ramp Control Signals ............................................. 4I-1
Section 4I.02  Design of Freeway Entrance Ramp Control Signals ................................................... 4I-1
Section 4I.03  Operation of Freeway Entrance Ramp Control Signals .............................................. 4I-2

CHAPTER 4J.  TRAFFIC CONTROL FOR MOVABLE BRIDGES

Section 4J.01  Application of Traffic Control for Movable Bridges ..................................................... 4J-1
Section 4J.02  Design and Location of Movable Bridge Signals and Gates .......................................... 4J-1
Section 4J.03  Operation of Movable Bridge Signals and Gates ........................................................... 4J-3

CHAPTER 4K.  HIGHWAY TRAFFIC SIGNALS AT TOLL PLAZAS

Section 4K.01  Traffic Signals at Toll Plazas .......................................................................................... 4K-1
Section 4K.02  Lane-Use Control Signals at or Near Toll Plazas ............................................................ 4K-1
Section 4K.03  Warning Beacons at Toll Plazas .................................................................................... 4K-1

CHAPTER 4L.  FLASHING BEACONS

Section 4L.01  General Design and Operation of Flashing Beacons ...................................................... 4L-1
Section 4L.02  Intersection Control Beacon .......................................................................................... 4L-1
Section 4L.03  Warning Beacon ............................................................................................................ 4L-2
Section 4L.04  Speed Limit Sign Beacon ................................................................................................. 4L-2
Section 4L.05  Stop Beacon ..................................................................................................................... 4L-3

CHAPTER 4M.  LANE-USE CONTROL SIGNALS

Section 4M.01  Application of Lane-Use Control Signals .................................................................... 4M-1
Section 4M.02  Meaning of Lane-Use Control Signal Indications ....................................................... 4M-1
Section 4M.03  Design of Lane-Use Control Signals ............................................................................. 4M-2
Section 4M.04  Operation of Lane-Use Control Signals ....................................................................... 4M-3
CHAPTER 4N.  IN-ROADWAY LIGHTS
Section 4N.01  Application of In-Roadway Lights ................................................................. 4N-1
Section 4N.02  In-Roadway Warning Lights at Crosswalks ...................................................... 4N-1

PART 5.  TRAFFIC CONTROL DEVICES FOR LOW-VOLUME ROADS

CHAPTER 5A.  GENERAL
Section 5A.01  Function ........................................................................................................... 5A-1
Section 5A.02  Application ...................................................................................................... 5A-1
Section 5A.03  Design ............................................................................................................. 5A-1
Section 5A.04  Placement ......................................................................................................... 5A-3

CHAPTER 5B.  REGULATORY SIGNS
Section 5B.01  Introduction .................................................................................................... 5B-1
Section 5B.02  STOP and YIELD Signs (R1-1 and R1-2) ......................................................... 5B-1
Section 5B.03  Speed Limit Signs (R2 Series) ......................................................................... 5B-1
Section 5B.04  Traffic Movement and Prohibition Signs (R3, R4, R5, R6, R9, R10, R11, R12, R13 and R14 Series) ................................................................. 5B-2
Section 5B.05  Parking Signs (R8 Series) ................................................................................ 5B-2
Section 5B.06  Other Regulatory Signs .................................................................................... 5B-2

CHAPTER 5C.  WARNING SIGNS
Section 5C.01  Introduction .................................................................................................... 5C-1
Section 5C.02  Horizontal Alignment Signs (W1-1 through W1-8) ........................................... 5C-1
Section 5C.03  Intersection Warning Signs (W2-1 through W2-6) .......................................... 5C-1
Section 5C.04  Stop Ahead and Yield Ahead Signs (W3-1, W3-2) ............................................ 5C-1
Section 5C.05  NARROW BRIDGE Sign (W5-2) ....................................................................... 5C-1
Section 5C.06  ONE LANE BRIDGE Sign (W5-3) ..................................................................... 5C-1
Section 5C.07  Hill Sign (W7-1) ............................................................................................. 5C-4
Section 5C.08  PAVEMENT ENDS Sign (W8-3) ........................................................................ 5C-4
Section 5C.09  Vehicular Traffic Warning and Non-Vehicular Warning Signs (W11 Series and W8-6) .................................................................................. 5C-4
Section 5C.10  Advisory Speed Plaque (W13-1P) ..................................................................... 5C-4
Section 5C.11  DEAD END or NO OUTLET Signs (W14-1, W14-1a, W14-2, W14-2a) ......... 5C-4
Section 5C.12  NO TRAFFIC SIGNS Sign (W18-1) ................................................................. 5C-4
Section 5C.13  Other Warning Signs ...................................................................................... 5C-5
Section 5C.14  Object Markers and Barricades ...................................................................... 5C-5

CHAPTER 5D.  GUIDE SIGNS
Section 5D.01  Introduction .................................................................................................... 5D-1

CHAPTER 5E.  MARKINGS
Section 5E.01  Introduction .................................................................................................... 5E-1
Section 5E.02  Center Line Markings ...................................................................................... 5E-1
Section 5E.03  Edge Line Markings ......................................................................................... 5E-1
Section 5E.04  Delineators ...................................................................................................... 5E-1
Section 5E.05  Other Markings .............................................................................................. 5E-1

CHAPTER 5F.  TRAFFIC CONTROL FOR HIGHWAY-RAIL GRADE CROSSINGS
Section 5F.01  Introduction .................................................................................................... 5F-1
Section 5F.02  Grade Crossing (Crossbuck) Sign and Number of Tracks Plaque (R15-1, R15-2P) 5F-1
Section 5F.03  Grade Crossing Advance Warning Signs (W10 Series) .................................. 5F-2
Section 5F.04  STOP and YIELD Signs (R1-1, R1-2) ............................................................. 5F-2
Section 5F.05  Pavement Markings ......................................................................................... 5F-2

June 2011
CHAPTER 5G. TEMPORARY TRAFFIC CONTROL ZONES

Section 5G.01 Introduction ........................................................................................................................ 5G-1
Section 5G.02 Applications........................................................................................................................ 5G-1
Section 5G.03 Channelization Devices ...................................................................................................... 5G-2
Section 5G.04 Markings............................................................................................................................. 5G-2
Section 5G.05 Other Traffic Control Devices ............................................................................................ 5G-2

CHAPTER 5H. TRAFFIC CONTROL FOR SCHOOL AREAS

Section 5H.01 Introduction ........................................................................................................................ 5H-1

PART 6. TEMPORARY TRAFFIC CONTROL

CHAPTER 6A. GENERAL

Section 6A.01 General ............................................................................................................................... 6A-1

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 Activity Area ....................................................................................................................... 6C-5
Section 6C.07 Termination Area ............................................................................................................... 6C-7
Section 6C.08 Tapers ................................................................................................................................. 6C-7
Section 6C.09 Detours and Diversions ..................................................................................................... 6C-10
Section 6C.10 One-Lane, Two-Way Traffic Control ................................................................................. 6C-10
Section 6C.11 Flagger Method of One-Lane, Two-Way Traffic Control.................................................... 6C-10
Section 6C.12 Flag Transfer Method of One-Lane, Two-Way Traffic Control ........................................ 6C-11
Section 6C.13 Pilot Car Method of One-Lane, Two-Way Traffic Control ................................................ 6C-11
Section 6C.14 Temporary Traffic Control Signal Method of One-Lane, Two-Way Traffic Control .......... 6C-11
Section 6C.15 Stop or Yield Control Method of One-Lane, Two-Way Traffic Control ......................... 6C-11

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-1
Section 6E.04 Automated Flagger Assistance Devices ............................................................................ 6E-3
Section 6E.05 STOP/SLOW Automated Flagger Assistance Devices ....................................................... 6E-4
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-11

CHAPTER 6F. TEMPORARY TRAFFIC CONTROL ZONE DEVICES

Section 6F.01 Types of Devices .............................................................................................................. 6F-1

June 2011
Section 6F.02 General Characteristics of Signs .................................................................................. 6F-1
Section 6F.03 Sign Placement ........................................................................................................ 6F-2
Section 6F.04 Sign Maintenance ....................................................................................................... 6F-11
Section 6F.05 Regulatory Sign Authority ....................................................................................... 6F-11
Section 6F.06 Regulatory Sign Design ............................................................................................. 6F-11
Section 6F.07 Regulatory Sign Applications .................................................................................. 6F-11
Section 6F.08 ROAD (STREET) CLOSED Sign (R11-2) ................................................................. 6F-11
Section 6F.09 Local Traffic Only Signs (R11-3a, R11-4) ................................................................. 6F-12
Section 6F.10 Weight Limit Signs (R12-1, R12-2, R12-5) ............................................................ 6F-12
Section 6F.11 STAY IN LANE Sign (R4-9) .................................................................................... 6F-12
Section 6F.12 Work Zone and Higher Fines Signs and Plaques ...................................................... 6F-12
Section 6F.13 PEDESTRIAN CROSSWALK Sign (R9-8) ................................................................ 6F-13
Section 6F.14 SIDEWALK CLOSED Signs (R9-9, R9-10, R9-11, R9-11a) .................................... 6F-13
Section 6F.15 Special Regulatory Signs ......................................................................................... 6F-13
Section 6F.16 Warning Sign Function, Design, and Application ..................................................... 6F-14
Section 6F.17 Position of Advance Warning Signs ......................................................................... 6F-14
Section 6F.18 ROAD (STREET) WORK Sign (W20-1) ................................................................. 6F-18
Section 6F.19 DETOUR Sign (W20-2) ......................................................................................... 6F-18
Section 6F.20 ROAD (STREET) CLOSED Sign (W20-3) ................................................................. 6F-18
Section 6F.21 ONE LANE ROAD Sign (W20-4) .............................................................................. 6F-18
Section 6F.22 Lane(s) Closed Signs (W20-5, W20-5a) ................................................................ 6F-18
Section 6F.23 CENTER LANE CLOSED AHEAD Sign (W9-3) .......................................................... 6F-19
Section 6F.24 Lane Ends Sign (W4-2) and MERGE (LEFT or RIGHT) Sign (W4-2-DE) .............. 6F-19
Section 6F.25 ON RAMP Plaque (W13-4P) .................................................................................. 6F-19
Section 6F.26 RAMP NARROWS Sign (W5-4) ................................................................................ 6F-19
Section 6F.27 SLOW TRAFFIC AHEAD Sign (W23-1) ................................................................. 6F-19
Section 6F.28 EXIT OPEN and EXIT CLOSED Signs (E5-2, E5-2a) ............................................. 6F-19
Section 6F.29 EXIT ONLY Sign (E5-3) ............................................................................................ 6F-19
Section 6F.30 NEW TRAFFIC PATTERN AHEAD Sign (W23-2P-DE) ........................................... 6F-19
Section 6F.31 Flagger Signs (W20-7, W20-7-DE, W20-7a) ............................................................ 6F-20
Section 6F.32 Two-Way Traffic Sign (W6-3) ................................................................................ 6F-20
Section 6F.33 Workers Signs (W21-1, W21-1a) ............................................................................ 6F-21
Section 6F.34 FRESH OIL (TAR) Sign (W21-2) ............................................................................. 6F-21
Section 6F.35 ROAD MACHINERY AHEAD Sign (W21-3) ............................................................. 6F-21
Section 6F.36 Motorized Traffic Signs (W8-6, W11-10) ............................................................... 6F-21
Section 6F.37 Shoulder Work Signs (W21-5, W21-5a, W21-5b) .................................................... 6F-21
Section 6F.38 SURVEY CREW Sign (W21-6) ............................................................................... 6F-22
Section 6F.39 UTILITY WORK Sign (W21-7) ................................................................................ 6F-22
Section 6F.40 Signs for Blasting Areas ......................................................................................... 6F-22
Section 6F.41 BLASTING ZONE AHEAD Sign (W22-1) ................................................................. 6F-22
Section 6F.42 TURN OFF 2-WAY RADIO AND CELL PHONE Sign (W22-2) ............................ 6F-22
Section 6F.43 END BLASTING ZONE Sign (W22-3) ................................................................. 6F-22
Section 6F.44 Shoulder Signs and Plaque (W8-4, W8-9, W8-17, and W8-17P) .......................... 6F-22
Section 6F.45 UNEVEN LANES Sign (W8-11) .............................................................................. 6F-23
Section 6F.46 STEEL PLATE AHEAD Sign (W8-24) ................................................................. 6F-23
Section 6F.47 NO CENTER LINE Sign (W8-12) .......................................................................... 6F-23
Section 6F.48 Reverse Curve Signs (W1-4 Series) ................................................................. 6F-23
Section 6F.49 Double Reverse Curve Signs (W24-1 Series) .......................................................... 6F-23
Section 6F.50 Other Warning Signs ............................................................................................. 6F-24
Section 6F.51 Special Warning Signs .......................................................................................... 6F-24
Section 6F.52 Advisory Speed Plaque (W13-1P) ........................................................................... 6F-24
Section 6F.53 Supplementary Distance Plaque (W7-3aP) ............................................................. 6F-24
Section 6F.54 Motorcycle Plaque (W8-15P) ................................................................................... 6F-25
Section 6F.55 Guide Signs ............................................................................................................ 6F-25
Section 6F.56 ROAD WORK NEXT XX MILES Sign (G20-1) ........................................................ 6F-25

June 2011
Section 6F.57  END ROAD WORK Sign (G20-2) ................................................................. 6F-26
Section 6F.58  PILOT CAR FOLLOW ME Sign (G20-4) ......................................................... 6F-26
Section 6F.59  Detour Signs (M4-8, M4-8a, M4-8b, M4-9, M4-9-DE, M4-9a, M4-9b, M4-9c, and M4-10) ................................................................. 6F-26
Section 6F.60  Portable Changeable Message Signs .............................................................. 6F-27
Section 6F.61  Arrow Boards ................................................................................................ 6F-30
Section 6F.62  High-Level Warning Devices (Flag Trees) .................................................... 6F-32
Section 6F.63  Channelizing Devices .................................................................................... 6F-33
Section 6F.64  Cones ............................................................................................................. 6F-35
Section 6F.65  Tubular Markers ............................................................................................ 6F-36
Section 6F.66  Vertical Panels ............................................................................................... 6F-36
Section 6F.67  Drums ............................................................................................................. 6F-37
Section 6F.68  Type 1, 2, or 3 Barricades ............................................................................... 6F-37
Section 6F.69  Direction Indicator Barricades ....................................................................... 6F-39
Section 6F.70  Temporary Traffic Barriers as Channelizing Devices ..................................... 6F-39
Section 6F.71  Longitudinal Channelizing Devices ............................................................... 6F-40
Section 6F.72  Temporary Lane Separators ........................................................................... 6F-40
Section 6F.73  Other Channelizing Devices .......................................................................... 6F-41
Section 6F.74  Detectable Edging for Pedestrians ................................................................. 6F-41
Section 6F.75  Temporary Raised Islands ............................................................................. 6F-42
Section 6F.76  Opposing Traffic Lane Divider and Sign (W6-4) ........................................... 6F-42
Section 6F.77  Pavement Markings ....................................................................................... 6F-42
Section 6F.78  Temporary Markings ..................................................................................... 6F-43
Section 6F.79  Temporary Raised Pavement Markers ............................................................ 6F-44
Section 6F.80  Delineators .................................................................................................... 6F-44
Section 6F.81  Lighting Devices ............................................................................................ 6F-45
Section 6F.82  Floodlights .................................................................................................... 6F-45
Section 6F.83  Warning Lights ............................................................................................. 6F-46
Section 6F.84  Temporary Traffic Control Signals ................................................................. 6F-47
Section 6F.85  Temporary Traffic Barriers ............................................................................ 6F-49
Section 6F.86  Crash Cushions ............................................................................................. 6F-51
Section 6F.87  Rumble Strips ............................................................................................... 6F-53
Section 6F.88  Screens ........................................................................................................... 6F-53

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-3
Section 6G.04  Modifications To Fulfill Special Needs .......................................................... 6G-3
Section 6G.05  Work Affecting Pedestrian and Bicycle Facilities ........................................ 6G-4
Section 6G.06  Work Outside of the Shoulder ...................................................................... 6G-5
Section 6G.07  Work on the Shoulder with No Encroachment ............................................ 6G-6
Section 6G.08  Work on the Shoulder with Minor Encroachment ......................................... 6G-6
Section 6G.09  Work Within the Median ............................................................................. 6G-7
Section 6G.10  Work Within the Traveled Way of a Two-Lane Highway ................................ 6G-7
Section 6G.11  Work Within the Traveled Way of an Urban Street ..................................... 6G-8
Section 6G.12  Work Within the Traveled Way of a Multi-Lane, Non-Access Controlled Highway ................................................................. 6G-8
Section 6G.13  Work Within the Traveled Way at an Intersection ....................................... 6G-10
Section 6G.14  Work Within the Traveled Way of an Interstate, Freeway, or Expressway .... 6G-11
Section 6G.15  Two-Lane, Two-Way Traffic on One Roadway of a Normally Divided Highway ............................................................... 6G-12
Section 6G.16  Crossovers ................................................................................................... 6G-12
Section 6G.17  Interchanges ................................................................................................. 6G-12
Section 6G.18  Work in the Vicinity of a Grade Crossing ................................................... 6G-12
Section 6G.19  Temporary Traffic Control During Nighttime Hours .................................. 6G-13
Section 6G.20  Vertical Difference ....................................................................................... 6G-14
PART 8. TRAFFIC CONTROL FOR RAILROAD AND LIGHT RAIL TRANSIT GRADE CROSSINGS

CHAPTER 8A. GENERAL

Section 8A.01 Introduction ................................................................. 8A-1
Section 8A.02 Use of Standard Devices, Systems, and Practices at Highway-Rail Grade Crossings ...... 8A-2
Section 8A.03 Use of Standard Devices, Systems, and Practices at Highway-LRT Grade Crossings ...... 8A-2
Section 8A.04 Uniform Provisions ................................................................. 8A-3
Section 8A.05 Grade Crossing Elimination .................................................. 8A-4
Section 8A.06 Illumination at Grade Crossings ........................................ 8A-4
Section 8A.07 Quiet Zone Treatments at Highway-Rail Grade Crossings ........................................ 8A-4
Section 8A.08 Temporary Traffic Control Zones ........................................... 8A-4

CHAPTER 8B. SIGNS AND MARKINGS

Section 8B.01 Purpose ........................................................................ 8B-1
Section 8B.02 Sizes of Grade Crossing Signs ............................................ 8B-1
Section 8B.03 Grade Crossing (Crossbuck) Sign (R15-1) and Number of Tracks Plaque (R15-2P) at Active and Passive Grade Crossings ......................................................... 8B-1
Section 8B.04 Crossbuck Assemblies with YIELD or STOP Signs at Passive Grade Crossings ........ 8B-4
Section 8B.05 Use of STOP (R1-1) or YIELD (R1-2) Signs without Crossbuck Signs at Highway-LRT Grade Crossings ................................................................. 8B-8
Section 8B.06 Grade Crossing Advance Warning Signs (W10 Series) .................. 8B-9
Section 8B.07 EXEMPT Grade Crossing Plaques (R15-3P, W10-1aP) ......................... 8B-10
Section 8B.08 Turn Restrictions During Preemption ................................... 8B-10
Section 8B.09 DO NOT STOP ON TRACKS Sign (R8-8) ....................................... 8B-11
Section 8B.10 TRACKS OUT OF SERVICE Sign (R8-9) ........................................ 8B-11
Section 8B.11 STOP HERE WHEN FLASHING Signs (R8-10, R8-10a) ...................... 8B-12
Section 8B.12 STOP HERE ON RED Signs (R10-6, R10-6a) ...................................... 8B-12
Section 8B.13 Light Rail Transit Only Lane Signs (R15-4 Series) ........................................ 8B-12
Section 8B.14 Do Not Pass Light Rail Transit Signs (R15-5, R15-5a) ......................... 8B-12
Section 8B.15 No Motor Vehicles On Tracks Signs (R15-6, R15-6a) ......................... 8B-13
Section 8B.16 Divided Highway with Light Rail Transit Crossing Signs (R15-7 Series) ................... 8B-13
Section 8B.17 LOOK Sign (R15-8) ............................................................ 8B-13
Section 8B.18 Emergency Notification Sign (I-13) ............................................. 8B-13
Section 8B.19 Light Rail Transit Approaching-Activated Blank-Out Warning Sign (W10-7) ................. 8B-14
Section 8B.20 TRAINS MAY EXCEED 80 MPH Sign (W10-8) ......................... 8B-14
Section 8B.21 NO TRAIN HORN Sign or Plaque (W10-9, W10-9P) ......................... 8B-14
Section 8B.22 NO GATES OR LIGHTS Plaque (W10-13P) ........................................ 8B-15
Section 8B.23 Low Ground Clearance Grade Crossing Sign (W10-5) ......................... 8B-15
Section 8B.24 Storage Space Signs (W10-11, W10-11a, W10-11b) ......................... 8B-15
Section 8B.25 Skewed Crossing Sign (W10-12) ............................................... 8B-16
Section 8B.26 Light Rail Transit Station Sign (I-12) ............................................. 8B-16
Section 8B.27 Pavement Markings .............................................................. 8B-16
Section 8B.28 Stop and Yield Lines ............................................................ 8B-16
Section 8B.29 Dynamic Envelope Markings .................................................. 8B-17

CHAPTER 8C. FLASHING-LIGHT SIGNALS, GATES, AND TRAFFIC CONTROL SIGNALS

Section 8C.01 Introduction .................................................................. 8C-1
Section 8C.02 Flashing-Light Signals ....................................................... 8C-3
Section 8C.03 Flashing-Light Signals at Highway-LRT Grade Crossings ......... 8C-4
Section 8C.04 Automatic Gates ............................................................... 8C-4

June 2011
Section 8C.05 Use of Automatic Gates at LRT Grade Crossings ................................................................. 8C-5
Section 8C.06 Four-Quadrant Gate Systems .............................................................................................. 8C-5
Section 8C.07 Wayside Horn Systems ......................................................................................................... 8C-8
Section 8C.08 Rail Traffic Detection .......................................................................................................... 8C-8
Section 8C.09 Traffic Control Signals at or Near Highway-Rail Grade Crossings ........................................ 8C-8
Section 8C.10 Traffic Control Signals at or Near Highway-LRT Grade Crossings ...................................... 8C-10
Section 8C.11 Use of Traffic Control Signals for Control of LRT Vehicles at Grade Crossings ................. 8C-11
Section 8C.12 Grade Crossings Within or In Close Proximity to Circular Intersections ............................ 8C-13
Section 8C.13 Pedestrian and Bicycle Signals and Crossings at LRT Grade Crossings .............................. 8C-13

CHAPTER 8D. PATHWAY GRADE CROSSINGS

Section 8D.01 Purpose .................................................................................................................................. 8D-1
Section 8D.02 Use of Standard Devices, Systems, and Practices ................................................................. 8D-1
Section 8D.03 Pathway Grade Crossing Signs and Markings ...................................................................... 8D-1
Section 8D.04 Stop Lines, Edge Lines, and Detectable Warnings ................................................................. 8D-1
Section 8D.05 Passive Devices for Pathway Grade Crossings .................................................................... 8D-3
Section 8D.06 Active Traffic Control Systems for Pathway Grade Crossings .......................................... 8D-3

PART 9. TRAFFIC CONTROL FOR BICYCLE FACILITIES

CHAPTER 9A. GENERAL

Section 9A.01 Requirements for Bicyclist Traffic Control Devices ............................................................ 9A-1
Section 9A.02 Scope .................................................................................................................................. 9A-1
Section 9A.03 Definitions Relating to Bicycles ............................................................................................ 9A-1
Section 9A.04 Maintenance ....................................................................................................................... 9A-1
Section 9A.05 Relation to Other Documents ............................................................................................. 9A-1
Section 9A.06 Placement Authority ........................................................................................................... 9A-1
Section 9A.07 Meaning of Standard, Guidance, Option, and Support ........................................................ 9A-1
Section 9A.08 Colors .................................................................................................................................. 9A-2

CHAPTER 9B. SIGNS

Section 9B.01 Application and Placement of Signs .................................................................................... 9B-1
Section 9B.02 Design of Bicycle Signs ....................................................................................................... 9B-1
Section 9B.03 STOP and YIELD Signs (R1-1, R1-2) ................................................................................ 9B-4
Section 9B.04 Bike Lane Signs and Plaques (R3-17, R3-17aP, R3-17bP) .................................................... 9B-4
Section 9B.05 BEGIN RIGHT TURN LANE (RIGHT TURNS) YIELD TO BIKES Signs (R4-4, R4-4-DE) .......................................................... 9B-6
Section 9B.06 Bicycles May Use Full Lane Sign (R4-11) ........................................................................... 9B-7
Section 9B.07 Bicycle WRONG WAY Sign and RIDE WITH TRAFFIC Plaque (R5-1b, R9-3cP) ....... 9B-7
Section 9B.08 NO MOTOR VEHICLES Sign (R5-3) .................................................................................. 9B-7
Section 9B.09 Selective Exclusion Signs .................................................................................................... 9B-7
Section 9B.10 No Parking Bike Lane Signs (R7-9, R7-9a) .......................................................................... 9B-8
Section 9B.11 Bicycle Regulatory Signs (R9-5, R9-6, R10-4, R10-24, R10-25, and R10-26) ................. 9B-8
Section 9B.12 Shared-Use Path Restriction Sign (R9-7) ............................................................................ 9B-8
Section 9B.13 Bicycle Signal Actuation Sign (R10-22) ............................................................................... 9B-8
Section 9B.14 Other Regulatory Signs ..................................................................................................... 9B-9
Section 9B.15 Turn or Curve Warning Signs (W1 Series) .......................................................................... 9B-9
Section 9B.16 Intersection Warning Signs (W2 Series) ............................................................................. 9B-10
Section 9B.17 Bicycle Surface Condition Warning Sign (W8-10) ............................................................... 9B-10
Section 9B.18 Bicycle Warning and Combined Bicycle/Pedestrian Signs (W11-1 and W11-15) .......... 9B-11
Section 9B.19 Other Bicycle Warning Signs ............................................................................................. 9B-11
Section 9B.20 Bicycle Guide Signs (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c, D11-1, D11-1c) ... 9B-11
Section 9B.21 Bicycle Route Signs (M1-8, M1-8a, M1-9) ........................................................................ 9B-15
Section 9B.22 Bicycle Route Sign Auxiliary Plaques ............................................................................... 9B-17
Section 9B.23 Bicycle Parking Area Sign (D4-3) ....................................................................................... 9B-18

June 2011
Section 9B.24  Reference Location Signs (D10-1 through D10-3) and Intermediate Reference Location Signs (D10-1a through D10-3a) ................................................................. 9B-18
Section 9B.25  Mode-Specific Guide Signs for Shared-Use Paths (D11-1a, D11-2, D11-3, D11-4)...... 9B-18
Section 9B.26  Object Markers ................................................................................................................. 9B-19

CHAPTER 9C.  MARKINGS

Section 9C.01  Functions of Markings ...................................................................................................... 9C-1
Section 9C.02  General Principles .............................................................................................................. 9C-1
Section 9C.03  Marking Patterns and Colors on Shared-Use Paths .......................................................... 9C-1
Section 9C.04  Markings For Bicycle Lanes ............................................................................................ 9C-9
Section 9C.05  Bicycle Detector Symbol .................................................................................................. 9C-11
Section 9C.06  Pavement Markings for Obstructions .............................................................................. 9C-11
Section 9C.07  Shared Lane Marking ....................................................................................................... 9C-11

CHAPTER 9D.  SIGNALS

Section 9D.01  Application ......................................................................................................................... 9D-1
Section 9D.02  Signal Operations for Bicycles ........................................................................................ 9D-1

APPENDIX A1. CONGRESSIONAL LEGISLATION ..............................................................................

APPENDIX A2. METRIC CONVERSIONS .............................................................................................

INDEX ....................................................................................................................................................
MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

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) 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 The 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) 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.

03 In accordance with 23 CFR 655.603(a), for the purposes of applicability of the 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; 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 MUTCD applicability.

04 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:
05 Pictographs, as defined in Section 1A.13, are embedded in traffic control devices but the pictographs themselves are not considered traffic control devices for the purposes of Paragraph 4.

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 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 MUTCD. The UVC contains a model set of motor vehicle codes and traffic laws for use throughout the United States.
Table I-1. Evolution of the MUTCD

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Month / Year Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>1927</td>
<td>Manual and Specifications for the Manufacture, Display, and Erection of U.S. Standard Road Markers and Signs (for rural roads)</td>
<td>4/29, 12/31</td>
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<tr>
<td>1930</td>
<td>Manual on Street Traffic Signs, Signals, and Markings (for urban streets)</td>
<td>No revisions</td>
</tr>
<tr>
<td>1935</td>
<td>Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)</td>
<td>2/39</td>
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<td>1948</td>
<td>Manual on Uniform Traffic Control Devices for Streets and Highways</td>
<td>9/54</td>
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<tr>
<td>2009</td>
<td>Manual on Uniform Traffic Control Devices for Streets and Highways</td>
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</table>

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 Standard, Guidance, Option, and Support material described in this edition of the 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).

11 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:

12 When used in this Manual, the text headings of Standard, Guidance, Option, and Support shall be as defined in Paragraph I of Section 1A.13.

Support:

13 Throughout this Manual all dimensions and distances are provided in English units. Appendix A2 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:

14 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.

15 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:

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

17 There are nine Parts in this Manual and each Part is comprised of one or more Chapters. Each Chapter is comprised of one or more Sections. Parts are given a numerical identification, such as Part 2 – Signs. Chapters are identified by the Part number and a letter, such as Chapter 2B – Regulatory Signs, Barricades, and Gates. Sections are identified by the Chapter number and letter followed by a decimal point and a number, such as Section 2B.03 – Size of Regulatory Signs.

18 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 “Not less than 40 feet beyond the stop line” that appears in Section 4D.14 of this Manual would be referenced in writing as “Section 4D.14, P1, A.1,” and would be verbally referenced as “Item A.1 of Paragraph 1 of Section 4D.14.”

Standard:

19 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).

20 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.

21 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)].

22 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 MUTCD [23 CFR 655.603(d)(1)]. These target compliance dates established by the FHWA shall be as shown in Table I-2.

23 Except as provided in Paragraph 24, 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:

24 (DE Revision) 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 the MUTCD.

C. The conversion to a compliant device would result in a significant delay in the installation of a safety-critical traffic control device (for instance, due to cost, engineering, environmental approval, etc.).
<table>
<thead>
<tr>
<th>2009 MUTCD Section Number(s)</th>
<th>2009 MUTCD Section Title</th>
<th>Specific Provision</th>
<th>Compliance Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2A.08</td>
<td>Minimum Retroreflectivity Levels</td>
<td>Implementation and continued use of an assessment or management method that is designed to maintain traffic sign retroreflectivity at or above the established minimum levels</td>
<td>January 22, 2012 (c)</td>
</tr>
<tr>
<td>2A.08</td>
<td>Minimum Retroreflectivity Levels</td>
<td>Replacement of regulatory, warning, and post-mounted guide (except street name) signs that are identified using the assessment or management method as failing to meet the established minimum levels.</td>
<td>January 22, 2015 (c)</td>
</tr>
<tr>
<td>2A.08</td>
<td>Minimum Retroreflectivity Levels</td>
<td>Replacement of street name signs and overhead guide signs that are identified using the assessment or management method as failing to meet the established minimum levels.</td>
<td>January 22, 2018 (c)</td>
</tr>
<tr>
<td>2A.19</td>
<td>Lateral Offset</td>
<td>Crashworthiness of sign supports on roads with posted speed limit of 50 mph or higher</td>
<td>January 17, 2013 (a)</td>
</tr>
<tr>
<td>2B.03</td>
<td>Size of Regulatory Signs</td>
<td>Increased sign sizes and other 2003 MUTCD revisions to Table 2B-1 (*)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2B.09</td>
<td>YIELD Sign Applications</td>
<td>Changes in YIELD sign application criteria from the 1988 MUTCD to the 2003 MUTCD (*)</td>
<td>January 17, 2011 (a)</td>
</tr>
<tr>
<td>2B.10</td>
<td>STOP Sign or YIELD Sign Placement</td>
<td>Signs mounted on the back of STOP or YIELD signs should not obscure shape of STOP sign, with exception for DO NOT ENTER signs (2003 MUTCD Sections 2B.06 and 2B.10) (*)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2B.11</td>
<td>Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)</td>
<td>New Section 2B.11 in the 2003 MUTCD (*)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2B.13</td>
<td>Speed Limit Sign (R2-1)</td>
<td>Color of changeable message legend of YOUR SPEED legend</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2B.26</td>
<td>Reversible Lane Control Signs (R3-9e through R3-9i)</td>
<td>Removal of the R3-9c and R3-9e signs that had been included in the 2000 MUTCD (2003 MUTCD Section 2B.25)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2B.40</td>
<td>ONE WAY Signs (R6-1, R6-2)</td>
<td>New requirement in the 2009 MUTCD for the number and locations of ONE WAY signs</td>
<td>December 31, 2019</td>
</tr>
<tr>
<td>2C.04</td>
<td>Size of Warning Signs</td>
<td>New sizes in the 2003 MUTCD for the W1 Series arrow signs, the W12-2a low clearance signs, the W7 Series runaway truck signs, and the W10-1 advance grade crossing sign (*)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2C.06 through 2C.14</td>
<td>Horizontal Alignment Warning Signs</td>
<td>Revised requirements in the 2009 MUTCD regarding the use of various horizontal alignment signs</td>
<td>December 31, 2019</td>
</tr>
<tr>
<td>2C.20</td>
<td>NARROW BRIDGE Sign (W5-2)</td>
<td>Elimination of symbol sign (2003 MUTCD Section 2C.16)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2C.38</td>
<td>Reduced Speed Limit Ahead Signs (W3-5, W3-5a)</td>
<td>Removal of R2-5 Series Reduced Speed Ahead signs and use of W3-5 or W3-5a warning signs instead (2003 MUTCD Section 2C.30)</td>
<td>December 22, 2018 (b)</td>
</tr>
<tr>
<td>2C.41</td>
<td>Added Lane Signs (W4-3, W4-6)</td>
<td>New Entering Roadway Added Lane sign (W4-6) (2003 MUTCD Section 2C.32)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2C.42</td>
<td>Lane Ends Signs (W4-2, W9-1, W9-2)</td>
<td>New design of W4-2 sign (2003 MUTCD Section 2C.33)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2009 MUTCD Section Number(s)</td>
<td>2009 MUTCD Section Title</td>
<td>Specific Provision</td>
<td>Compliance Date</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>-------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>2C.46</td>
<td>Intersection Warning Signs (W2-1 through W2-8)</td>
<td>New design of Circular Intersection (W2-6) sign (2003 MUTCD Section 2C.37)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2C.50</td>
<td>Non-Vehicular Warning Signs</td>
<td>Elimination of crosswalk lines from crossing signs and use of diagonal downward pointing arrow (W16-7P) supplemental plaque if at the crossing (2003 MUTCD Section 2C.41)</td>
<td>January 17, 2011 (a)(b)</td>
</tr>
<tr>
<td>2C.61</td>
<td>PHOTO ENFORCED Plaque (W16-10P)</td>
<td>New plaque (2003 MUTCD Section 2C.53) (*)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2C.63</td>
<td>Object Marker Design and Placement Height</td>
<td>Width of stripes on Type 3 striped marker (2003 MUTCD Section 3C.01)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2D.43</td>
<td>Street Name Signs (D3-1 or D3-1a)</td>
<td>6-inch letter height for lettering on post-mounted Street Name signs (except on multi-lane streets with speed limits greater than 40 mph) (2000 MUTCD Section 2D.38)</td>
<td>January 9, 2012 (a)</td>
</tr>
<tr>
<td>2D.43</td>
<td>Street Name Signs (D3-1 or D3-1a)</td>
<td>8-inch letter height on post-mounted signs on multi-lane streets with speed limits greater than 40 mph and 12-inch letter height on overhead signs (2003 MUTCD Section 2D.38)</td>
<td>December 22, 2018 (b)</td>
</tr>
<tr>
<td>2D.44</td>
<td>Advance Street Name Signs (D3-2)</td>
<td>Requirements of new Section 2D.39 in the 2003 MUTCD</td>
<td>December 22, 2018 (b)</td>
</tr>
<tr>
<td>2D.45</td>
<td>Signing on Conventional Roads on Approaches to Interchanges</td>
<td>New requirement in the 2009 MUTCD for multi-lane approaches to interchanges to have guide signs to identify which direction of turn is to be made for access to each direction of the freeway or expressway</td>
<td>December 31, 2019</td>
</tr>
<tr>
<td>2E.31, 2E.33, and 2E.36</td>
<td>Plaques for Left-Hand Exits</td>
<td>New requirement in the 2009 MUTCD to use E1-5aP and E1-5bP plaques for left-hand exits</td>
<td>December 31, 2014</td>
</tr>
<tr>
<td>2G.01 through 2G.07</td>
<td>Regulatory Signs for Preferential Lanes</td>
<td>Requirements for regulatory signs for preferential lanes (2003 MUTCD Sections 2B.26 through 2B.28) (*)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2G.11 through 2G.15</td>
<td>Preferential Lane Guide Signs</td>
<td>New Section 2E.59 in the 2003 MUTCD (*)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2H.02, 2H.03</td>
<td>Reference Location Signs, Intermediate Reference Location Signs, and Enhanced Reference Location Signs</td>
<td>Location and spacing of Reference Location signs and design of Intermediate Reference Location signs (2003 MUTCD Sections 2D.46 and 2E.54)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2I.07</td>
<td>Radio Information Signing</td>
<td>New Channel 9 Monitored (D12-3) sign (2003 MUTCD Section 2D.45)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2I.08</td>
<td>TRAVEL INFO CALL 511 Signs (D12-5 and D12-5a)</td>
<td>New TRAVEL INFO CALL 511 Sign (D12-5) (2003 MUTCD Section 2D.45)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>2J.05</td>
<td>Size of Lettering</td>
<td>Minimum height of letters and numerals on Specific Service signs (2000 MUTCD Section 2F.05)</td>
<td>January 17, 2011 (a)</td>
</tr>
<tr>
<td>2N.03</td>
<td>Evacuation Route Signs (EM-1 and EM-1a)</td>
<td>New design and size of EM-1 sign (2003 MUTCD Section 2I.03)</td>
<td>December 22, 2018 (b)</td>
</tr>
<tr>
<td>3B.04, 3B.05</td>
<td>White Longitudinal Pavement Markings</td>
<td>New requirement in the 2009 MUTCD for dotted lane lines for dropped lanes and for acceleration, deceleration, and auxiliary lanes</td>
<td>December 31, 2016 or resurfacing, whichever occurs first</td>
</tr>
<tr>
<td>3B.18</td>
<td>Crosswalk Markings</td>
<td>Gap between transverse lines of a crosswalk (2003 MUTCD Section 3B.17)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>4D.01</td>
<td>General</td>
<td>Location of signalized midblock crosswalks</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>4D.26</td>
<td>Yellow Change and Red Clearance Intervals</td>
<td>New requirement in the 2009 MUTCD that durations of yellow change and red clearance intervals shall be determined using engineering practices</td>
<td>December 31, 2014, or when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first</td>
</tr>
</tbody>
</table>
Table I-2. Target Compliance Dates Established by the FHWA (Sheet 3 of 3)

<table>
<thead>
<tr>
<th>2009 MUTCD Section Number(s)</th>
<th>2009 MUTCD Section Title</th>
<th>Specific Provision</th>
<th>Compliance Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>4D.31</td>
<td>Flashing Operation—Transition Out of Flashing Mode</td>
<td>Duration of steady red clearance interval in change from red-red flashing mode to steady (stop-and-go) mode (2003 MUTCD Section 4D.12)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>4E.06</td>
<td>Pedestrian Intervals and Signal Phases</td>
<td>New requirement in the 2009 MUTCD that the pedestrian change interval shall not extend into the red clearance interval and shall be followed by a buffer interval of at least 3 seconds</td>
<td>December 31, 2014, or when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first</td>
</tr>
<tr>
<td>4E.07</td>
<td>Countdown Pedestrian Signals</td>
<td>Pedestrian countdown hardware requirements</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>5C.05</td>
<td>NARROW BRIDGE Sign (W5-2)</td>
<td>Elimination of symbol sign</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>6D.03</td>
<td>Worker Safety Considerations</td>
<td>New requirement in the 2009 MUTCD that all workers within the right-of-way shall wear high-visibility apparel</td>
<td>December 31, 2011</td>
</tr>
<tr>
<td>6E.02</td>
<td>High-Visibility Safety Apparel</td>
<td>New requirement in the 2009 MUTCD that all flaggers within the right-of-way shall wear high-visibility apparel</td>
<td>December 31, 2011</td>
</tr>
<tr>
<td>7B.11</td>
<td>School Advance Crossing Assembly</td>
<td>Use of AHEAD (W16-9P) plaque or distance plaque (W16-2P or W16-2aP) (2000 MUTCD Section 7B.08)</td>
<td>January 17, 2011 (a)</td>
</tr>
<tr>
<td>7B.12</td>
<td>School Crossing Assembly</td>
<td>Elimination of crosswalk lines from crossing signs and use of diagonal downward pointing arrow (W16-7P) supplemental plaque (2000 MUTCD Sections 7B.08 and 7B.09)</td>
<td>January 17, 2011 (a)</td>
</tr>
<tr>
<td>7B.16</td>
<td>Reduced School Speed Limit Ahead Sign (S4-5, S4-5a)</td>
<td>Removal of R2-5 Series Reduced Speed Ahead signs and use of S4-5 or S4-5a warning signs instead (2003 MUTCD Section 7B.12)</td>
<td>December 22, 2018 (b)</td>
</tr>
<tr>
<td>7D.04</td>
<td>Uniform of Adult Crossing Guards</td>
<td>New requirement in the 2009 MUTCD for high-visibility apparel for adult crossing guards</td>
<td>December 31, 2011</td>
</tr>
<tr>
<td>8B.03</td>
<td>Grade Crossing (Crossbuck) Sign (R15-1) and Number of Tracks Plaque (R15-2P) at Active and Passive Grade Crossings</td>
<td>Retroreflective strip on crossbuck support (2000 MUTCD Section 8B.02) (*)</td>
<td>January 17, 2011 (a)</td>
</tr>
<tr>
<td>8B.04</td>
<td>Crossbuck Assemblies with YIELD or STOP Signs at Passive Grade Crossings</td>
<td>New requirement in the 2009 MUTCD for the use of STOP or YIELD signs with Crossbuck signs at passive grade crossings</td>
<td>December 31, 2019</td>
</tr>
<tr>
<td>8B.19 and 8C.02 through 8C.05</td>
<td>LRT Approaching-Activated Blank-Out Warning Sign, Flashing Light Signals, and Automatic Gates</td>
<td>Automatic gates, flashing-light signals, and blank-out signs at highway-LRT crossings per Part 10 of the 2000 MUTCD (*)</td>
<td>January 17, 2011 (a)</td>
</tr>
<tr>
<td>8C.09</td>
<td>Traffic Control Signals at or Near Highway-Rail Grade Crossings</td>
<td>Pre-signals (2003 MUTCD Section 8D.07)</td>
<td>December 22, 2013 (b)</td>
</tr>
<tr>
<td>8C.12</td>
<td>Grade Crossings Within or In Close Proximity to Circular Intersections</td>
<td>New requirement in the 2009 MUTCD for study of grade crossings near roundabouts</td>
<td>December 31, 2014</td>
</tr>
<tr>
<td>9B.18</td>
<td>Bicycle Warning and Combined Bicycle/Pedestrian Signs (W11-1 and W11-15)</td>
<td>Elimination of crosswalk lines from crossing signs and use of diagonal downward pointing arrow (W16-7P) supplemental plaque if at the crossing (2000 MUTCD Section 9B.15)</td>
<td>January 17, 2011 (a)</td>
</tr>
</tbody>
</table>

Notes: Unless otherwise noted, dates are as established in the Final Rule for the 2009 MUTCD.
(a) Date established in the Final Rule for the 2000 MUTCD
(b) Date established in the Final Rule for the 2003 MUTCD
(c) Date established in the Final Rule for Revision 2 of the 2003 MUTCD
(*) Provisions may have been revised in the 2009 MUTCD