Proposed Additions to the MUTCD

Section 1A.13, Section 6I.01, and Traffic Incident Management Applications (TIMA)

Add to Section 1A.13 <u>Definitions of Words and Phrases in This Manual</u>.

Safe-Positioned---the positioning of emergency vehicles at an incident in a manner that attempts to protect both the responders performing their duties and the incident scene.

Add to Section 6I.01 General, modify the second paragraph of the Guidance section (lower third of page 6I-1).

On-scene responders should be trained <u>both</u> in safe practices for accomplishing their tasks in and near traffic <u>and the requirements for traffic incident management contained in this Manual.</u> Responders should always be aware of their visibility to oncoming traffic and take measures to move the traffic incident as far off the traveled roadway as possible or to provide for appropriate warning. <u>Emergency vehicles should be Safe-Positioned in such a manner as to optimize traffic flow through the incident scene.</u> All subsequent arriving emergency vehicles should be positioned as to not interfere with the established temporary traffic flow.

Deleted: as they arrive at the incident scene. The number and placement of emergency vehicles that are Safe-Positioned should be determined

In addition, the following items (after additional editing for compliance with the MUTCD format) should be added to this Chapter, and to the other relevant sections of the MUTCD:

Add discussion of authority of MUTCD and what traffic control devices are:

Standard:

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, or bikeway by authority of a public agency having jurisdiction.

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, or bicycle trail open to public travel in accordance with 23 U.S.C. 109(d) and 402(a).

Add discussion of concept of Typical Applications:

A Typical Application provides guidance for placing traffic control around an incident space. However, it is not a requirement that traffic control be placed at all incident locations. The Typical Application provides the guidance for how the traffic control devices may be placed when the decision to provide traffic control around the Incident Space is made. It may not be practical to implement some or all portions of a particular Typical Application due to the nature of the Incident.

Add definition of Incident Space:

The Incident Space is the area that includes the incident, and the necessary space around the incident required to manage the event, including yehicles and personnel.

Add definition of Public Authority:

Public Authority for traffic incidents includes highway agencies, the appropriate public safety agencies (law enforcement, fire and rescue, emergency communications, emergency medical, and emergency management), and authorized private sector responders (towing and recovery and hazardous materials contractors).

Add definition of Typical Application:

A Typical Application provides guidance for placing traffic control around an incident space. It is based on the location of the incident (i.e., shoulder, closure of a lane, or intersection) to the traveled way, and not the specific type of incident.

Add guidance for Sign Placement:

Signs should be placed on the shoulder of the road when practical. When there is not a sufficient shoulder, signs should be placed either in a median strip or other location outside of the travel lane. Signs should not be placed on sidewalks or other areas that persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA), Title II, Paragraph 35.130) may travel.

Add discussion of conformance with the guidance provided in Typical Applications:

A Typical Application provides guidance for placing traffic control

around an incident space. However, it may not be practical to implement some or
all portions of the Typical Applications due to physical constraints (i.e., high
speed facilities with no shoulders or high barrier walls).

Add to Section 6I.01 General, in the first sentence of the fourth paragraph of the second Support section (lower third of page 6I-1), add

"The primary functions of TTC at a traffic incident management area are to provide an incident area to protect the incident responders and those involved in the incident to move road users reasonably safely and expeditiously past or around the traffic incident, to reduce the likelihood of secondary traffic crashes, and to preclude unnecessary use of the surrounding local road system. Examples include a stalled vehicle blocking a lane, a traffic crash blocking the traveled way, a hazardous material spill along a highway, and natural disasters such as floods and severe storm damage."

Add to Section 6I.03 Intermediate Traffic Incidents, in the second Guidance section (lower third of page 6I-1), 1st sentence, modify, and 2nd sentence, remove:

"When flares are used to initiate TTC at traffic incidents, more permanent traffic channelizing devices should replace them be installed as soon as practical. Both the flare and its supporting device should then be removed from the roadway when the incident is terminated."

Formatted: Font: Italic

Add some type of language that will add the following definitions from the MUTCD Introduction into Chapter 6I for stand-alone purposes:

When used in this Manual, the text headings shall be defined as follows:

- Standard—a statement of required, mandatory, or specifically prohibitive practice
 regarding a traffic control device. All Standard statements are labeled, and the text
 appears in bold type. The verb "shall" is typically used. The verb "should" is not
 used in Standard statements. Standard statements are sometimes modified by
 Options.
- 2. Guidance—a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate. All Guidance statements are labeled, and the text appears in unbold type. The verb "should" is typically used. The verb "shall" is not used in Guidance statements. Guidance statements are sometimes modified by Options.
- 3. Option—a statement of practice that is a permissive condition and carries no requirement or recommendation. Option statements may sometime contain allowable modifications to a Standard or Guidance statement. All Option statements are labeled, and the text appears in unbold type. The verb "may" is typically used. The verbs "shall" and "should" are not used in Option statements.
- 4. <u>Support—an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support statements are labeled, and the text appears in unbold type. The verbs "shall," "should," and "may" are not used in Support statements.</u>

It is proposed that the National Committee work with the NTMIC to produce a guide for public safety that incorporates Chapter 6I and other relevant sections of the MUTCD in one document to provide this information in a complete and concise manner that can be distributed to public safety and other first responders to incidents.

Notes for Figure 6I-2 Typical Traffic Incident Management Application 1 Shoulder Incident

Support:

- 1. This information applies to an incident on the shoulder of a two-lane highway.
- 2. Additional traffic control by the highway agency is not included in this Typical Application.

Option:

3. Emergency responders may use this information when they are the only source of traffic control, and when an incident is on the shoulder of a highway, and the duration of the incident is estimated to be less than 30 minutes (minor).

Guidance:

- 4. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 5. The initial emergency response vehicle should be Safe-Positioned.
- 6. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned downstream of the incident vehicle or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.

Support

7. A minimum of <u>five</u> channelizing devices such as traffic cones (6F-7) and one sign <u>may be used</u> to implement this Typical Application.

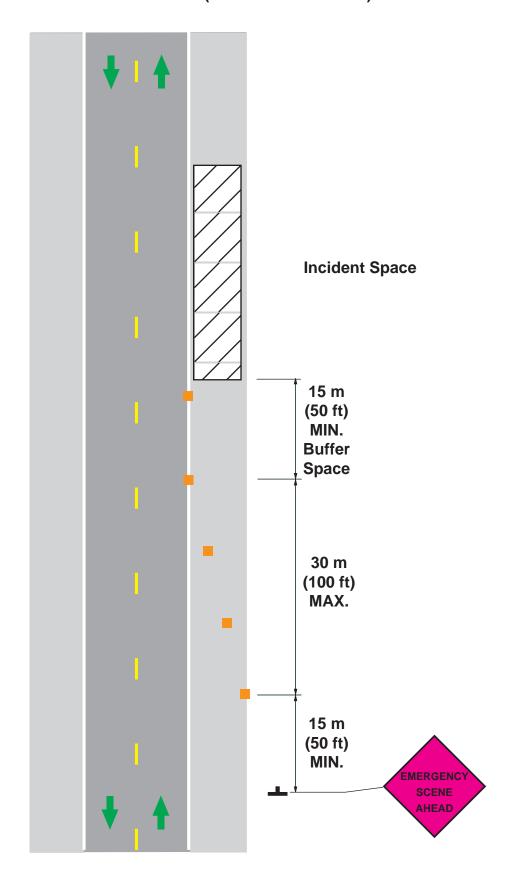
Deleted: Emergency responders should carry a

Deleted: six

Deleted: <#>The first emergency responder should minimize the distance between the incident vehicle and the end of the buffer space. ¶

Figure 6I-2. Shoulder Incident (TIMA 1)

Minor Incident Duration (less than 30 minutes).



Notes for Figure 6I-3 Typical Traffic Incident Management Application 2 Incident Requiring Lane Closure on Two-Lane, Low-Speed Road

(Posted Speed 40 MPH and Lower)

Support:

- 1. This information applies to an incident in a lane on a two-lane highway.
- 2. The number of devices shown assumes multiple incident response vehicles.
- 3. Additional traffic control by the highway agency is not included in this Typical Application.

Option:

4. Emergency responders may use this information when they are the only source of traffic control, and when an incident encroaches upon a lane of a two-lane, low-speed highway and the duration of the incident is estimated to be less than 30 minutes (minor).

Guidance:

- 5. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 6. The initial emergency response vehicle should be Safe-Positioned.
- 7. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned downstream of the incident vehicle or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.
- 8. When only one law enforcement officer is available to control traffic, that officer should be positioned to be seen by both directions of traffic.

Support

9. A minimum of five channelizing devices such as traffic cones (6F-7) and one sign may be used to implement this Typical Application. As additional emergency responders arrive, supplementary channelizing devices and signs may be added.

Deleted: <#>Emergency responders should carry a minimum of six channelizing devices such as traffic cones (6F-7) and one sign to implement this Typical Application.¶ <#>The first emergency responder should

minimize the distance between the incident vehicle and the end of the buffer space.

Formatted: Bullets and Numbering

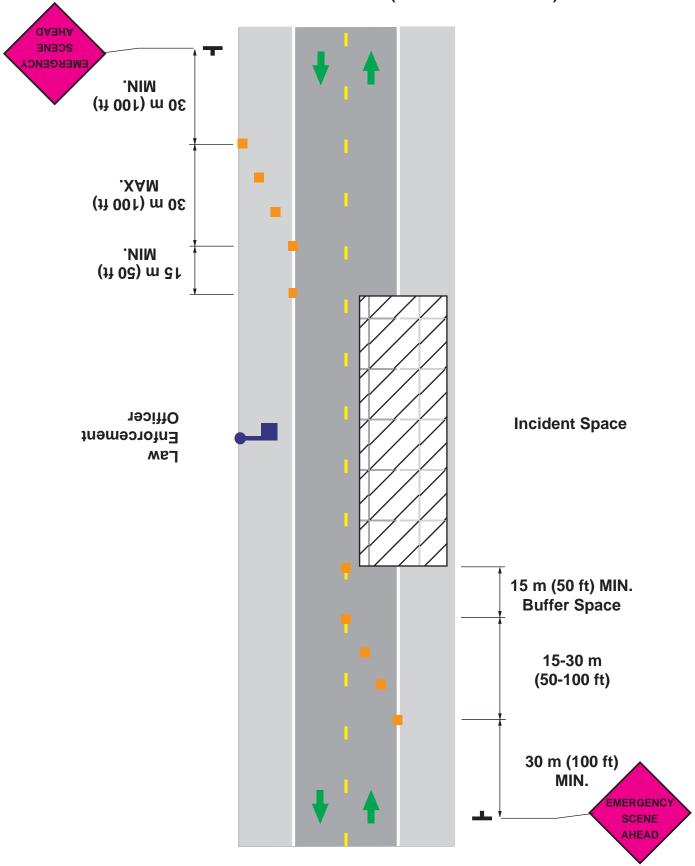
Deleted: ¶

Option:

10. A flagger may be used in place of the law enforcement officer to control traffic.

Figure 6I-3. Incident Requiring Lane Closure on Two-Lane, Low-Speed Road (TIMA 2)

Posted Speed 40 MPH and lower Minor Incident Duration (less than 30 minutes)



Notes for Figure 6I-4 Typical Traffic Incident Management Application 3 Incident Requiring Lane Closure on Two-Lane, High-Speed Road

(Posted Speed 45 MPH and Higher)

Support:

- 1. This information applies to an incident in a lane on a two-lane highway.
- 2. The number of devices shown assumes multiple incident response vehicles.
- 3. Additional traffic control by the highway agency is not included in this Typical Application.

Option:

4. Emergency responders may use this information when they are the only source of traffic control, and when an incident is on the shoulder of a two-lane, high-speed highway, the adjacent lane is required to be closed, and the duration of the incident is estimated to be 30 minutes to less than 2 hours (intermediate).

Guidance:

- 5. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 6. The initial emergency response vehicle should be Safe-Positioned.
- 7. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned downstream of the incident vehicle or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.
- 8. When only one law enforcement officer is available to control traffic, that officer should be positioned to be seen by both directions of traffic.

Support

9. A minimum of five channelizing devices such as traffic cones (6F-7) and one sign may be used to implement this Typical Application. As additional emergency responders arrive, supplementary channelizing devices and signs may be added.

Option

10. Flagger(s) may be used in place of the law enforcement officer(s) to control traffic.

Formatted: Bullets and Numbering

Deleted: ¶

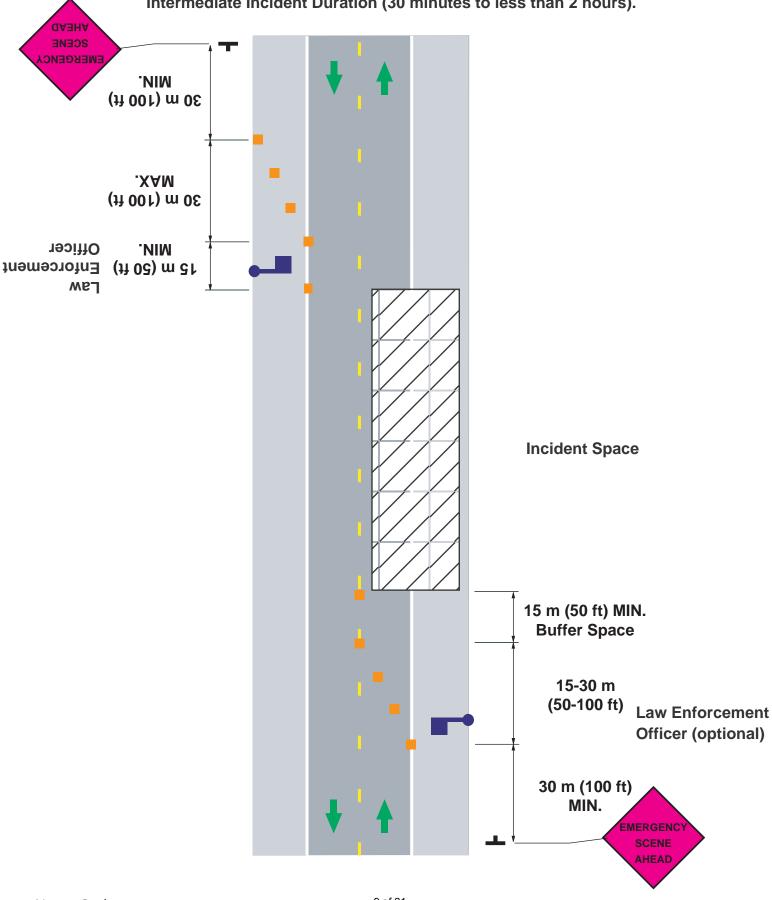
<#>Emergency responders should carry a minimum of six channelizing devices such as traffic cones (6F-7) and one sign to implement this Typical Application.¶ The first emergency responder should minimize the distance between the incident vehicle and the end of the buffer space.

Formatted: Indent: Left: 0.25"

Formatted: Bullets and Numbering

Figure 6I-4. Incident Requiring Lane Closure or Two-Lane, High-Speed Road (TIMA 3)

Posted Speed 45 mph and higher Intermediate Incident Duration (30 minutes to less than 2 hours).



Not to Scale 9 of 21

Notes for Figure 6I-5 Typical Traffic Incident Management Application 4 Incident Requiring Lane Closure on Multi-lane, Low-Speed Highway

(Posted Speed 40 MPH and Lower)

Support:

- This information applies to an incident in an exterior lane on a multi-lane highway. The diagram shows the incident in the right outside lane. The same procedure, in mirror image, applies to an incident in the left lane adjacent to the left edgeline, center median, or left shoulder.
- 2. Additional traffic control by the highway agency is not included in this Typical Application.

Option:

3. Emergency responders may use this information when they are the only source of traffic control, and when an incident is on the shoulder of a multi-lane, low-speed highway, the adjacent lane is required to be closed, and the duration of the incident is estimated to be less than 30 minutes (minor).

Guidance:

- 4. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 5. The initial emergency response vehicle should be Safe-Positioned.
- 6. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned downstream of the incident vehicle or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.

Support

7. A minimum of five channelizing devices such as traffic cones (6F-7) and one sign may be used to implement this Typical Application. As additional emergency responders arrive, supplementary channelizing devices and signs may be added.

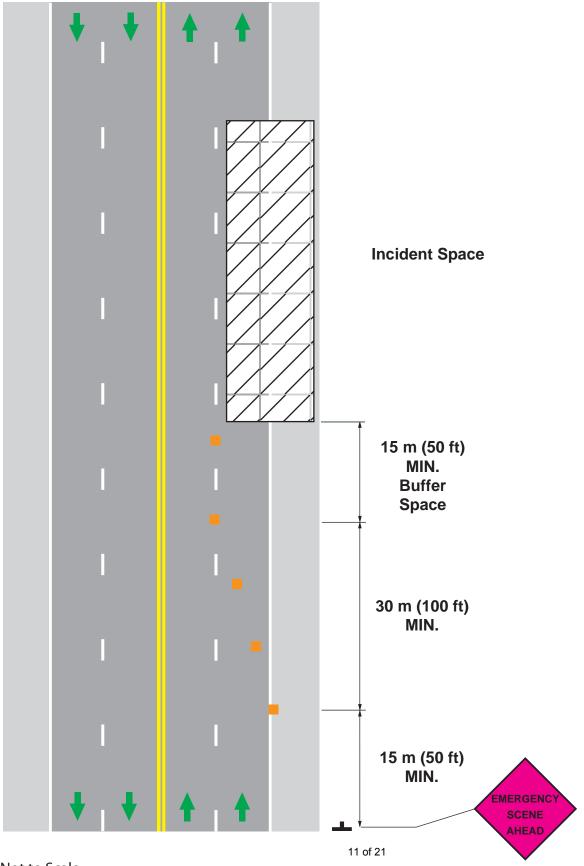
Formatted: Bullets and Numbering

Deleted: ¶

<#>Emergency responders should carry a minimum of six channelizing devices such as traffic cones (6F-7) and one sign to implement this Typical Application. ¶ The first emergency responder should minimize the distance between the incident vehicle and the end of the buffer space.

Figure 6I-5. Incident Requiring Lane Closure on Multi-lane, Low-Speed Highway (TIMA 4)

Posted Speed 40 MPH and Lower Minor Incident Duration (less than 30 minutes).



Notes for Figure 6I-6 Typical Traffic Incident Management Application 5 Incident Requiring Lane Closure on Multi-lane, High-Speed Highway

(Posted Speed 45 MPH and Higher)

Support:

- This information applies to an incident in an exterior lane on a multi-lane highway. The diagram shows the incident in the right outside lane. The same procedure, in mirror image, applies to an incident in the left lane adjacent to the left edgeline, center median, or left shoulder.
- 2. Additional traffic control by the highway agency is not included in this Typical Application.

Option:

3. Emergency responders may use this information when they are the only source of traffic control, and when an incident is on the shoulder of a multi-lane, high-speed highway, the adjacent lane is required to be closed, and the duration of the incident is estimated to be less than 30 minutes (minor).

Guidance:

- 4. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 5. The initial emergency response vehicle should be Safe-Positioned.
- 6. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned downstream of the incident vehicle or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.

Support

7. A minimum of five channelizing devices such as traffic cones (6F-7) and one sign may be used to implement this Typical Application. As additional emergency responders arrive, supplementary channelizing devices and signs may be added.

Formatted: Bullets and Numbering

Deleted: ¶

<#>Emergency responders should carry a minimum of six channelizing devices such as traffic cones (6F-7) and one sign to implement this Typical Application. ¶ The first emergency responder should minimize the distance between the incident vehicle and the end of the buffer space.

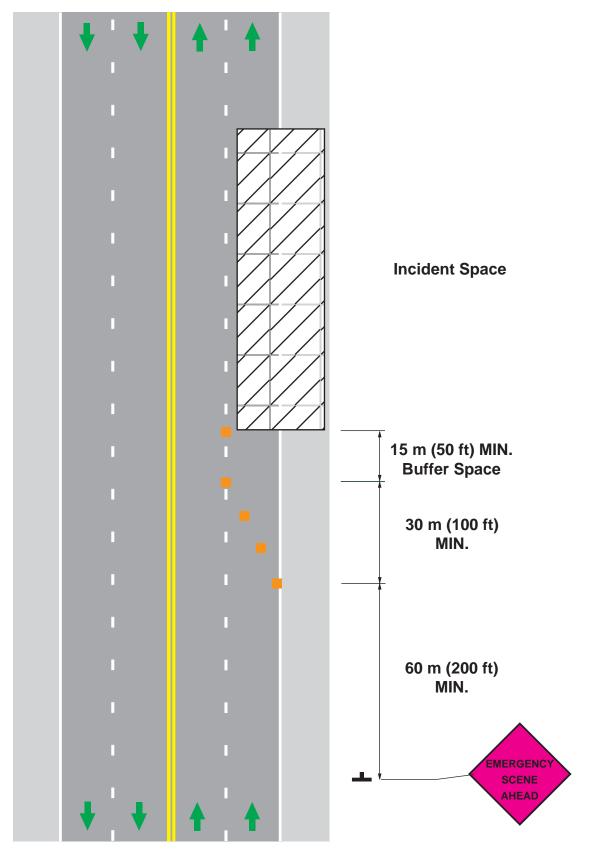
Formatted: Bullets and Numbering

Formatted: Indent: Left: 0.25'

June 9, 2008

Figure 6I-6. Incident Requiring Lane Closure on Multi-lane, High-Speed Highway (TIMA 5)

Posted Speed 45 MPH and Higher
Minor Incident Duration (less than 30 minutes)



Notes for Figure 6I-7 Typical Traffic Incident Management Application 6 Incident Requiring Lane Closure on Multi-lane, High-Speed Highway

(Posted Speed 45 MPH and Higher)

Support:

- 1. This information applies to an incident in an exterior lane on a multi-lane highway. The diagram shows the incident in the right outside lane. The same procedure, in mirror image, applies to an incident in the left lane adjacent to the left edgeline, center median, or left shoulder; the only difference being the substitution of the MERGE RIGHT sign in place of the MERGE LEFT sign.
- 2. The number of devices shown assumes multiple incident response vehicles.
- 3. Additional traffic control by the highway agency is not included in this Typical Application.

Option:

4. Emergency responders may use this information when they are the only source of traffic control, and when an incident is in the outer lane or on the shoulder of a multi-lane, high-speed highway, the outer lane is required to be closed, and the duration of the incident is estimated to be from 30 minutes to less than 2 hours (intermediate).

Guidance:

- 5. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 6. The initial emergency response vehicle should be Safe-Positioned.
- 7. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned downstream of the incident vehicle or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.

Support

8. A minimum of five channelizing devices such as traffic cones (6F-7) and one sign may be used to implement this Typical Application. As additional emergency responders arrive, supplementary channelizing devices and signs may be added.

Formatted: Bullets and Numbering

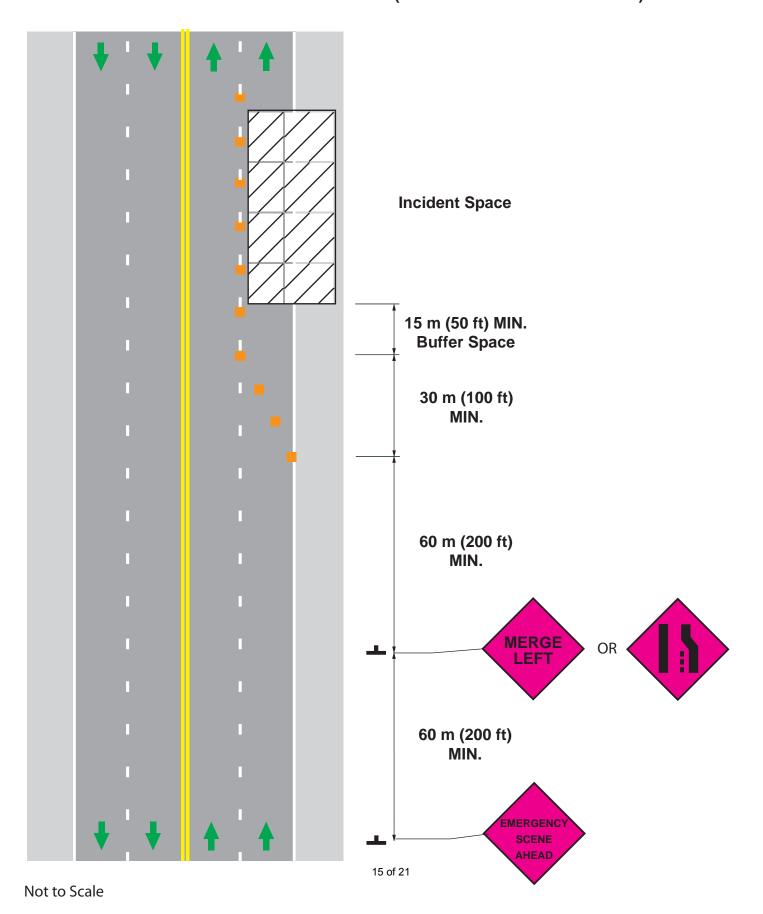
Deleted: ¶

<#>Emergency responders should carry a minimum of six channelizing devices such as traffic cones (6F-7) and one sign to implement this Typical Application.¶ The first emergency responder should minimize the distance between the incident vehicle and the end of the buffer space.

June 9, 2008

Figure 6I-7. Incident Requiring Lane Closure on Multi-lane, High-Speed Highway (TIMA 6)

Posted Speed 45 MPH and higher Intermediate Incident Duration (30 minutes to less than 2 hours)



Notes for Figure 6I-8 Typical Traffic Incident Management Application 7 Incident Requiring Multi-lane Closure on High-Speed Highway

(Posted Speed 45 MPH and Higher)

Support:

- 1. This information applies to an incident in an exterior lane on a multi-lane highway. The diagram shows the incident in the right outside lane(s). The same procedure, in mirror image, applies to an incident in the left lane(s) adjacent to the left edgeline, center median, or left shoulder; the only difference being the substitution of the MERGE RIGHT signs in place of the MERGE LEFT signs.
- 2. The number of devices shown assumes multiple incident response vehicles.
- 3. Additional traffic control by the highway agency is not included in this Typical Application.

Option:

4. Emergency responders may use this information when they are the only source of traffic control, and when an incident on a multi-lane, high-speed highway requires a multiple lane closure, and the duration of the incident is estimated to be from 30 minutes to less than 2 hours (intermediate).

Guidance:

- 5. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 6. The initial emergency response vehicle should be Safe-Positioned.
- 7. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned downstream of the incident vehicle or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.

Support

8. A minimum of five channelizing devices such as traffic cones (6F-7) and one sign may be used to implement this Typical Application. As additional emergency responders arrive, supplementary channelizing devices and signs may be added.

Option:

9. Emergency responders may use a buffer space downstream of the merging taper when additional lane closures are used.

Formatted: Bullets and Numbering

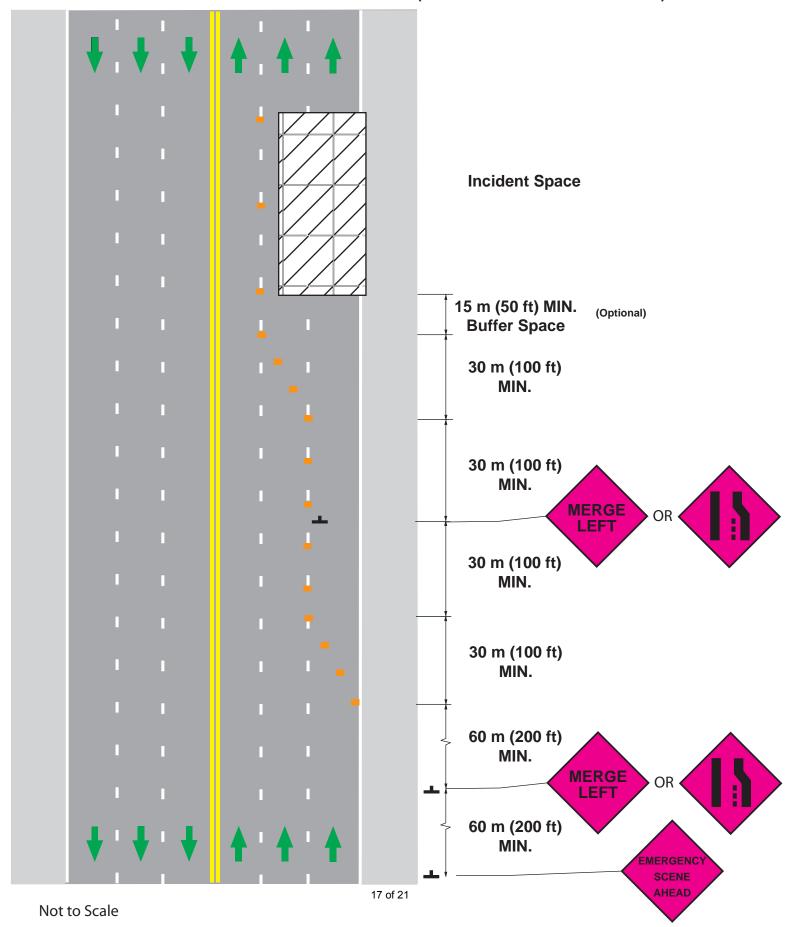
Deleted: ¶

<#>Emergency responders should carry a minimum of six channelizing devices such as traffic cones (6F-7) and one sign to implement this Typical Application. The first emergency responder should minimize the distance between the incident vehicle and the end of the buffer space.

Formatted: Bullets and Numbering

Figure 6I-8. Incident Requiring Multi-lane Closure, 2008 on High-Speed Highway (TIMA 7)

Posted Speed 45 MPH and higher Intermediate Incident Duration (30 minutes to less than 2 hours).



Notes for Figure 6I-9

Typical Traffic Incident Management Application 8 Incident Near Intersection

Support:

- This information applies to an incident in an interior lane on a multi-lane highway. The diagram shows the incident in the left interior lane. The same procedure, in mirror image, applies to an incident in the exterior lane adjacent to the right edgeline or shoulder; the only difference being the substitution of the MERGE LEFT sign in place of the MERGE RIGHT sign.
- 2. The number of devices shown assumes multiple incident response vehicles.
- 3. Additional traffic control by the highway agency is not included in this Typical Application.

Option:

4. Emergency responders may use this information when they are the only source of traffic control, when an incident is near an intersection, and the duration of the incident is estimated to be from 30 minutes to less than 2 hours (intermediate).

Guidance:

- 5. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 6. The initial emergency response vehicle should be Safe-Positioned.
- 7. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned in areas away from the incident or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.
- 8. When the incident area is on a high-speed highway, the distance between the merging taper and the first sign, and the distance between additional signs, should be increased to 60 m (200 ft) minimum.
- 9. Traffic control should be provided for the cross street as additional devices become available.

Formatted: Bullets and Numbering

Deleted: ¶

<#>Emergency responders should carry a minimum of six channelizing devices such as traffic cones (6F-7) and one sign to implement this Typical Application. The first emergency responder should minimize the distance between the incident vehicle and the end of the buffer space.

Support

10. A minimum of five channelizing devices such as traffic cones (6F-7) and one sign
may be used to implement this Typical Application. As additional emergency
responders arrive, supplementary channelizing devices and signs may be added.

Formatted: Bullets and Numbering

Option:

Figure 6I-9. Incident Near Intersection (TIMA 8) 9, 2008 Intermediate Incident Duration (30 minutes to less than 2 hours). **QA3HA SCENE** EMERGENCY MIN. 30 m (100 ft) MIN. 30 m (100 ft) MIN. 30 m (100 ft) OK Buffer Space .NIM (11 0Շ) m Շ հ 🕆 **RIGHT** WEBGE **Incident Space** 30 m (100 ft) MIN. **MERGE RIGHT** 30 m (100 ft) OR MIN. 30 m (100 ft) MIN. **EMERGENCY SCENE** 19 of 21 **AHEAD** Not to Scale

Notes for Figure 6I-10 Typical Traffic Incident Management Application 9 Incident In Intersection

Support:

- This information applies to an incident in an interior lane on a multi-lane highway. The
 diagram shows the incident in the left interior lane. The same procedure, in mirror
 image, applies to an incident in the exterior lane adjacent to the right edgeline or right
 shoulder; the only difference being the substitution of the MERGE LEFT sign in place of
 the MERGE RIGHT sign.
- 2. The number of devices shown assumes multiple incident response vehicles.
- Additional traffic control by the highway agency is not included in this Typical Application.

Option:

4. Emergency responders may use this information when they are the only source of traffic control, when an incident is in an intersection, and the duration of the incident is estimated to be from 30 minutes to less than 2 hours (intermediate).

Guidance:

- 5. When additional highway agency resources are available, applicable procedures and devices set forth in other Chapters of Part 6 should be used.
- 6. The initial emergency response vehicle should be Safe-Positioned.
- 7. Additional vehicles, including tow, media, maintenance, utility, and other emergency responders should be positioned in areas away from the incident or staged outside the traveled way to minimize exposure and disruption to both traffic and emergency responders at the incident scene.
- 8. Emergency responders should provide traffic control for the major cross street of the intersection.
- 9. When the incident area is on a high-speed highway, the distance between the merging taper and the first sign, and the distance between additional signs, should be increased to 60 m (200 ft) minimum.
- 10. Signs should be provided for the minor street as they become available.

channelizing devices such as traffic cones (6F-7) and one sign to implement this Typical Application.¶

Deleted: <#>Emergency responders should carry a minimum of six

Formatted: Bullets and Numbering

Support

11. A minimum of five channelizing devices such as traffic cones (6F-7) and one sign may be used to implement this Typical Application. As additional emergency responders arrive, supplementary channelizing devices and signs may be added.

Formatted: Bullets and Numbering

Option:

- 12. Emergency responders may use a buffer space downstream of the merging taper when additional lane closures are used.
- 13. If the through lanes are blocked, all approaching traffic may be directed to turn right,

Formatted: Bullets and Numbering

Deleted: ¶

Support

14. If through traffic cannot be maintained, establishment of detours may be required.

Figure 6I-10. Incident In Intersection (TIMA 9)

Intermediate Incident Duration (30 minutes to less than 2 hours).

