TMP History

- The Work Zone Safety and Mobility Rule
- Establishes requirements and provides guidance for:
  - Addressing work zone safety and mobility impacts
  - Developing strategies to manage those impacts
- Better understand, anticipate, and plan for work zone impacts:
  - Assess/understand local as well as corridor and network impacts
  - Examine solutions that minimize these impacts
  - Involve stakeholders in the process
  - Facilitate customer-focused project development
- Consider solutions that go beyond the immediate location of the work zone:
  - Expand work zone management beyond traffic safety and control
  - Managing a transportation system
  - Address safety and mobility

Source: https://ops.fhwa.dot.gov/wz/resources/final_rule.htm
What is a TMP?

• A TMP lays out a set of coordinated strategies and describes how these strategies will be used to manage the work zone impacts of a project. The scope, content, and level of detail of a TMP may vary based on the agency’s work zone policy and the anticipated work zone impacts of the project.

• A TMP Contains three items:
  • Temporary Traffic Control Plan
  • Transportation Operations Plan
  • Public Information Plan

• Two of the keys to a successful TMP are:
  • Developing it as early as possible.
  • Using a multidisciplinary approach.

Source:
https://ops.fhwa.dot.gov/wz/rule_guide/sec6.htm#sec61
TMP Development

- Step 1 – Compile Project Material
- Step 2 – Determine TMP Needs
- Step 3 – Identify Stakeholders
- Step 4 – Develop TMP
- Step 5 – Update/Revise TMP
- Step 6 – Finalize Construction Phasing/Staging and TMP
- Step 7 – Re-Evaluate/Revise TMP
- Step 8 – Implement TMP
- Step 9 – TMP Monitoring
- Step 10 – Update/Revise TMP Based on Monitoring
- Step 11 – Post-Project TMP Evaluation

Source:
https://ops.fhwa.dot.gov/wz/rule_guide/sec6.htm#sec61
Public Information
# Public Information

1. **Develop Foundation/Framework for Campaign**
   1.1 Define goals and objectives for outreach campaign
   1.2 Determine approach, resources, and scope of outreach
   1.3 Define the outreach coordination team and necessary partners and define roles
   1.4 Identify target audience
   1.5 Develop messages
   1.6 Develop brand themes and logo for project
   1.7 Determine general opportunities to distribute the messages (public meetings, peak commute times, direct mail, etc.)
   1.8 Develop draft plan to implement outreach strategies (specific actions/timelines/points of contact)
   1.9 Determine success criteria
   1.10 Validate communications plan/secure buy-in from key leaders and partners

2. **Develop Outreach Strategies**
   2.1 Confirm outreach product types and format requirements (negotiate pricing where possible/appropriate and determine final product types based on budget)
   2.2 Determine communication strategies to convey the messages (news, brochures, website, radio ads, dynamic message signs, etc.)
   2.3 Identify audience for each product
   2.4 Confirm specific message for each product
   2.5 Determine design of product
   2.6 Develop specific content of product
   2.7 Produce outreach products

3. **Implement Outreach Strategies**
   3.1 Confirm outreach opportunities/distribution channels and identify deadlines or special requirements. Document in plan.
   3.2 Match outreach products to specific distribution channels identified in item 1.7.
   3.3 Continue to identify outreach partners and possible outreach opportunities
   3.4 Develop/maintain contact lists
   3.5 Distribute products through channels

4. **Evaluate/Improve Outreach Strategies**
   4.1 Regularly review and update each outreach strategy
   4.2 Conduct regular process reviews as appropriate (will depend on length of project)
   4.3 At completion of outreach, evaluate effectiveness of outreach results based on success criteria, document lessons learned, and implement improvements in the future.

---

# Public Information

- [https://ops.fhwa.dot.gov/wz/publicinfostrategies.htm](https://ops.fhwa.dot.gov/wz/publicinfostrategies.htm)

## Ways to Communicate Work Zone Information

<table>
<thead>
<tr>
<th>Project web site</th>
<th>Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email alerts</td>
<td>CB radio network (for truckers)</td>
</tr>
<tr>
<td>Web-connected traffic cameras</td>
<td>Billboards</td>
</tr>
<tr>
<td>Direct mail (community contact letter, other materials)</td>
<td>Advertising on buses</td>
</tr>
<tr>
<td>Brochures/flyers/factsheets</td>
<td>Information center or kiosk</td>
</tr>
<tr>
<td>Newsletter</td>
<td>Project hotline</td>
</tr>
<tr>
<td>Legislative briefings</td>
<td>511</td>
</tr>
<tr>
<td>Public meetings/workshops/events</td>
<td>Dynamic message signs (DMS)</td>
</tr>
<tr>
<td>Project model display with related traffic information</td>
<td>Highway advisory radio (HAR)</td>
</tr>
<tr>
<td>Newspapers advertising and articles</td>
<td>Personal contacts</td>
</tr>
<tr>
<td>TV advertising, articles, traffic spots</td>
<td>Press kit</td>
</tr>
<tr>
<td>Radio advertising, articles, and traffic spots</td>
<td>Business survival kit</td>
</tr>
<tr>
<td>Maps</td>
<td>Rest-stop restaurant tray liners</td>
</tr>
<tr>
<td>Employee newsletters</td>
<td>Give-aways (key-chains, pens, etc.)</td>
</tr>
</tbody>
</table>

Transportation Operations
### Transportation Operations

#### Demand Management Strategies
- Transit service improvements
- Transit incentives
- Shuttle services
- Ride-sharing/carpooling incentives
- Park-and-ride promotion
- High-occupancy vehicle (HOV) lanes
- Toll/congestion pricing
- Ramp metering
- Parking supply management
- Variable work hours
- Telecommuting

#### Corridor/Network Management Strategies
- Signal timing/coordinated improvements
- Temporary traffic signals
- Street/intersection improvements
- Bus turnouts
- Turn restrictions
- Parking restrictions
- Truck/heavy vehicle restrictions
- Separate truck lanes
- Reversible lanes
- Dynamic lane closure system
- Ramp metering
- Temporary suspension of ramp metering
- Ramp closures
- Railroad crossings controls
- Coordination with adjacent construction site(s)

#### Work Zone Safety Management Strategies
- Speed limit reduction/variable speed limits
- Temporary traffic signals
- Temporary traffic barrier
- Movable traffic barrier systems
- Crash cushions
- Temporary rumble strips
- Intrusion alarms
- Warning lights
- Automated Flagger Assistance Devices (AFADs)
- Project task force/committee
- Construction safety supervisors/inspectors
- Road safety audits
- TMP monitor/inspection team
- Team meetings
- Project on-site safety training
- Safety awareness/education
- Windshield surveys

#### Traffic/Incident Management and Enforcement Strategies
- ITS for traffic monitoring/management
- Transportation Management Center (TMC)
- Surveillance (Closed-Circuit Television (CCTV), loop detectors, lasers, probe vehicles)
- Helicopter for aerial surveillance
- Traffic screens
- Cell boxes
- Mile-post markets
- Tow/transport service patrols
- Photogrammetry
- Coordination with media
- Local detour routes
- Contract support for incident management
- Incident/emergency management coordinator
- Incident/emergency response plan
- Dedicated (paid) police enforcement
- Cooperative police enforcement
- Automated enforcement
- Increased penalties for work zone violations

Source: [https://ops.fhwa.dot.gov/wz/rule_guide/](https://ops.fhwa.dot.gov/wz/rule_guide/)
Temporary Traffic Control
Temporary Traffic Control Plans

Temporary traffic control plans and devices SHALL be the responsibility of the authority of a public body or official having jurisdiction for guiding road users.

<table>
<thead>
<tr>
<th>Temporary Traffic Control Plans</th>
<th>Traffic Control Devices</th>
<th>Project Coordination, Contracting and Innovative Construction Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction phasing/staging</td>
<td>Temporary signs</td>
<td>Project coordination</td>
</tr>
<tr>
<td>Full roadway closures</td>
<td>- Warning</td>
<td>- Coordination with other projects</td>
</tr>
<tr>
<td>Lane shifts or closures</td>
<td>- Regulatory</td>
<td>- Utilities coordination</td>
</tr>
<tr>
<td>- Reduced lane widths to maintain number of lanes (construction)</td>
<td>- Guide/information</td>
<td>- Right-of-way coordination</td>
</tr>
<tr>
<td>- Lane closures to provide worker safety</td>
<td>- Changeable Message Signs (CMS)</td>
<td>- Coordination with other transportation infrastructure</td>
</tr>
<tr>
<td>- Reduced shoulder width to maintain number of lanes</td>
<td>- Arrow panels</td>
<td>- Contracting strategies</td>
</tr>
<tr>
<td>- Shoulder closures to provide worker safety</td>
<td>- Channelizing devices</td>
<td>- Design-build</td>
</tr>
<tr>
<td>- Lane shift to shoulder/median to maintain number of lanes</td>
<td>- Temporary pavement markings</td>
<td>- A-B bidding</td>
</tr>
<tr>
<td>One-lane, two-way operation</td>
<td>- Temporary traffic signals</td>
<td>- Incentive/disincentive clauses</td>
</tr>
<tr>
<td>Two-way traffic on one side of divided facility (crossover)</td>
<td>- Lighting devices</td>
<td>- Lane rental</td>
</tr>
<tr>
<td>Reversible lanes</td>
<td></td>
<td>Innovative construction techniques (precast members, rapid cure materials)</td>
</tr>
<tr>
<td>Ramp closures/relocation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freeway-to-freeway interchange closures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekend work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work hour restrictions for peak travel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestrian/bicycle access improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business access improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-site detours/use of alternate routes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: https://ops.fhwa.dot.gov/wz/rule_guide/
Temporary Traffic Control Plans

- A TTC plan describes TTC measures to be used for facilitating road users through a work zone or an incident area.

- TTC plans range in scope from being very detailed to simply referencing typical drawings contained in the MUTCD, standard approved highway agency drawings and manuals, or specific drawings contained in the contract documents.

- The degree of detail in the TTC plan depends entirely on the nature and complexity of the situation.

- TTC plans should be prepared by persons knowledgeable (for example, trained and/or certified) about the fundamental principles of TTC and work activities to be performed. The design, selection, and placement of TTC devices for a TTC plan should be based on engineering judgment.

- Traffic control planning should be completed for all highway construction, utility work, maintenance operations, and incident management including minor maintenance and utility projects prior to occupying the TTC zone.

Traffic Control

• Primary Function of Traffic Control
  • “Provide for the reasonably safe and efficient movement of road users through or around temporary traffic control in work zones while reasonably protecting workers, responders to traffic incidents, and equipment”

• What is Temporary Traffic Control (TTC)?
  • System to communicate with road users to safely guide them through a roadway affected by:
    • Construction and reconstruction
    • Maintenance activities
    • Utility operations
    • Disasters, special events and incidents

Temporary Traffic Control Basics

- Primary Function of Traffic Control
  - For Road Users
    - Provide Reasonably Safe Movement
    - Provide Efficient Movement
  - In Work Areas
    - Provide Reasonable Protection for Workers and/or Responders Equipment

Road Closure Example

GENERAL NOTES

1. IF NECESSARY USE THIS RSD, FOR 2-LANE, 2-WAY, AND MULTILANE DIVIDED AND UNDIVIDED ROADWAYS.

2. INSTALLATION OF DETOUR ROUTING PANELS, TEMPORARY ROUTE MARKERS, DESTINATION SIGNS, AND ANY NECESSARY MODIFICATIONS TO EXISTING OR PROPOSED REGULATORY OR WARNING SIGNS WILL BE MADE BY OTHERS (STATE OR CITY FORCES) UNLESS OTHERWISE DESIGNATED IN THE PLANS. PROVIDE A MINIMUM 30 CALENDAR DAY NOTICE TO STATE FORCES BEFORE A ROADWAY IS CLOSED TO TRAFFIC SUCH THAT THE NECESSARY PROVISIONS CAN BE MADE TO INSTALL DETOUR ROUTE SIGNS, INFORM LOCAL, EMERGENCY AND LAW ENFORCEMENT PERSONNEL, SCHOOLS, OR ANY OTHER PARTIES AFFECTED BY THE ROAD CLOSURE.

3. INSTALL SIGNS BEFORE THE BARRIACADES WHEN CLOSING THE ROADWAY TO TRAFFIC. REMOVE BARRIACADES BEFORE SIGNS WHEN OPENING THE ROADWAY TO TRAFFIC. INSTALL/REMOVE SIGNS AND BARRIACADES WITHIN THE SAME CALENDAR DAY.

4. USE ADDITIONAL TYPE III BARRIACADES IN STAGGERED LOCATIONS SUPPLEMENTED WITH SIGN R11-4 "ROAD CLOSED TO THRU TRAFFIC" IN THE EVENT THAT TRAFFIC MUST BE MAINTAINED BEYOND THE DETOUR POINT.

5. DO NOT DISPLAY FRACTIONS OR DECIMALS ON SIGN R11-3 "ROAD CLOSED XX MILES AHEAD".

6. POSITION WING BARRIACADES ON THE SHOULDERS AND SLOPE THE STRIPES DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING.

7. USE PORTABLE SIGNS IF ROAD CLOSURE IS TO BE IMPLEMENTED FOR LESS THAN THREE DAYS, OR FOR EMERGENCIES.

Source: https://connect.ncdot.gov/resources/Specifications/2018StandardRdwyDrawings/
Temporary Road Closure

Table 6H-2. Meaning of Symbols on Typical Application Diagrams

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrow board</td>
<td>Support or trailer (shown towing down)</td>
</tr>
<tr>
<td>Changeable message sign or support trailer</td>
<td>Channeling device</td>
</tr>
<tr>
<td>Crash cushion</td>
<td>Direction of temporary traffic control</td>
</tr>
<tr>
<td>Direction of traffic</td>
<td>Flag</td>
</tr>
<tr>
<td>High-level warning device (Flag tree)</td>
<td>Longitudinal channelizing device</td>
</tr>
<tr>
<td>Luminaires</td>
<td>Permanent markings that should be removed for a long-term project</td>
</tr>
<tr>
<td>Shadow vehicle</td>
<td>Sign (shown facing left)</td>
</tr>
<tr>
<td>Surveyor</td>
<td>Temporary barrier</td>
</tr>
<tr>
<td>Temporary barrier with warning light</td>
<td>Traffic or pedestrian signal</td>
</tr>
<tr>
<td>Truck-mounted attenuator</td>
<td>Type 3 barricade</td>
</tr>
<tr>
<td>Warning light</td>
<td>Work space</td>
</tr>
<tr>
<td>Work vehicle</td>
<td></td>
</tr>
</tbody>
</table>

Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Distance Between Signs**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban (low speed)*</td>
<td>A: 100 feet, B: 100 feet, C: 100 feet</td>
</tr>
<tr>
<td>Urban (high speed)*</td>
<td>A: 350 feet, B: 350 feet, C: 350 feet</td>
</tr>
<tr>
<td>Rural</td>
<td>A: 500 feet, B: 500 feet, C: 500 feet</td>
</tr>
<tr>
<td>Expressway/Freeway</td>
<td>A: 1,000 feet, B: 1,500 feet, C: 2,640 feet</td>
</tr>
</tbody>
</table>

* Speed category to be determined by the highway agency
** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition point to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. The first sign is the sign in a three-sign series that is closest to the TTC zone. The third sign is the sign that is furthest upstream from the TTC zone.
Basic Elements of the Work Zone

• Temporary Traffic Control Plans
• Advance Warning Area
• Transition Area
• Activity Area (buffer space and work space)
• Termination Area
• Tapers

Advance Warning Area

Traffic Space allows traffic to pass through the activity area.

Buffer Space (longitudinal) provides protection for traffic and workers.

Work Space is set aside for workers, equipment, and material storage.

Activity Area is where work takes place.

Transition Area moves traffic out of its normal path.

Shoulder Taper

Advance Warning Area tells traffic what to expect ahead.

Legend
- Direction of travel
- Channelizing device
- Work space
- Sign

Advance Warning Signs

- First Sign- Advises of work ahead
- Second Sign- What to expect
- Third Sign- Action to take
- The overall effect of signs:
  - to make the driver aware of what they are approaching and what action is required.

Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

<table>
<thead>
<tr>
<th>Road Type</th>
<th>Distance Between Signs **</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Urban (low speed)*</td>
<td>100</td>
</tr>
<tr>
<td>Urban (high speed)*</td>
<td>360</td>
</tr>
<tr>
<td>Rural</td>
<td>500</td>
</tr>
<tr>
<td>Expressway / Freeway</td>
<td>1,000</td>
</tr>
</tbody>
</table>

* Speed category to be determined by the highway agency
** The column headings A, B, and C are the dimensions shown in Figures 6I-1 through 6I-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

Transition Area

Activity Area

Traffic Space allows traffic to pass through the activity area.

Buffer Space (lateral) provides protection for traffic and workers.

Work Space is set aside for workers, equipment, and material storage.

Buffer Space (longitudinal) provides protection for traffic and workers.

Transition Area moves traffic out of its normal path.

Shoulder Taper

Advance Warning Area tells traffic what to expect ahead.

Table 6C-2. Stopping Sight Distance as a Function of Speed

<table>
<thead>
<tr>
<th>Speed (mph)</th>
<th>Distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>110</td>
</tr>
<tr>
<td>25</td>
<td>125</td>
</tr>
<tr>
<td>30</td>
<td>140</td>
</tr>
<tr>
<td>35</td>
<td>155</td>
</tr>
<tr>
<td>40</td>
<td>175</td>
</tr>
<tr>
<td>45</td>
<td>190</td>
</tr>
<tr>
<td>50</td>
<td>205</td>
</tr>
<tr>
<td>55</td>
<td>220</td>
</tr>
<tr>
<td>60</td>
<td>235</td>
</tr>
<tr>
<td>65</td>
<td>250</td>
</tr>
<tr>
<td>70</td>
<td>265</td>
</tr>
<tr>
<td>75</td>
<td>280</td>
</tr>
</tbody>
</table>

*Worked speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed.
Termination Area

Tapers

- Merging Tapers
  - Length = L
- Shifting Tapers
  - Length = 1/2 L
- Shoulder Tapers
  - Length = 1/3 L
- Two-way Tapers
  - 100 feet max
- Flaggers

Downstream
- Tapers (optional)
- 100’ minimum

MERGING TAPERS

Work Zone Traffic Control Devices

A traffic control device is a sign, signal, marking or other device placed on or adjacent to a street or highway to regulate, warn, or guide traffic.

Work Duration

- Long-term stationary is work that occupies a location more than 3 days.
- Intermediate-term stationary is work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than 1 hour.
- Short-term stationary is daytime work that occupies a location for more than 1 hour within a single daylight period.
- Short duration is work that occupies a location up to 1 hour.
- Mobile is work that moves intermittently or continuously.

Channelizing Devices

Channelizing Devices

* Warning lights (optional)
** Rail stripe widths shall be 6 inches, except that 4-inch wide stripes may be used if rail lengths are less than 36 inches. The sides of barricades facing traffic shall have retroreflective rail faces.

Channelizing Devices

- Stripes Slope Downward In the Direction Traffic Is To Pass
  - Alternate orange and white retroreflective stripes
  - Slope downward in the direction traffic is to pass

Spacing of Devices

• Tangent section- twice the speed limit
  – Spacing of devices = \(2 \times \text{mph}\)

• Taper Section- one times the speed limit
  – Spacing of devices = \((1 \times \text{mph})\)

Warning Lights

• Warning lights placed on channelizing devices used alone or in a cluster to warn of a condition must be in flash mode. [Standard Section 6F.63, Paragraph 11].

• Warning lights placed on these channelizing devices used in a series to channelize road users shall be steady-burn. [Standard Section 6F.63, Paragraph 11].

Warning Signs

- Diamond shaped panels
- 48” X 48” Minimum for Freeway or Expressway
- 36” X 36” Minimum for Conventional Road
- Minimum 7’ above pavement – Urban

Warning Signs - Rural

- Minimum 5’ above pavement – Rural
- Repeat last sign in series 500’ past major intersections or interchanges outside urban areas

Warning Signs

- Minimum 12” above pavement (temporary)
- Sand bags should be used to stabilize stand
- Flashers should be on the side traffic is to pass

Flagger Control

- Shall wear ANSI Class 2 garments at all time during daylight hours
- Should wear ANSI Class 3 garments at night
- The flagger should stand alone, away from other workers, work vehicles, or equipment.

Flagger Control

- Figure 6E-1
  - Red Flag should be limited to emergency use only
  - Use the standard STOP/SLOW Paddle as shown in Figure 6E-1 and Flagger procedure in Section 6E.04

Flagger Control

The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. STOP/SLOW paddles shall be at least 18 inches wide with letters at least 6 inches high. The STOP (R1-1) face shall have white letters and a white border on a red background. The SLOW (W20-8) face shall have black letters and a black border on an orange background.

When used at night, the STOP/SLOW paddle shall be retroreflectorized.

Flagger Control

- The flagger should stand either on the shoulder adjacent to the road user being controlled or in the closed lane prior to stopping road users. A flagger should only stand in the lane being used by moving road users after road users have stopped.

- The flagger should be clearly visible to the first approaching road user at all times.

- The flagger also should be visible to other road users. The flagger should be stationed sufficiently in advance of the workers to warn them (for example, with audible warning devices such as horns or whistles) of approaching danger by out-of-control vehicles.

Road Closure Example

1. IF NECESSARY USE THIS RDS, FOR 2-LANE, 2-WAY, AND MULTILANE DIVIDED AND UNDIVIDED ROADWAYS.

2. INSTALLATION OF DETOUR ROUTING PANELS, TEMPORARY ROUTE MARKERS, DESTINATION SIGNS, AND ANY NECESSARY MODIFICATIONS TO EXISTING OR PROPOSED REGULATORY OR WARNING SIGNS WILL BE MADE BY OTHERS (STATE OR CITY FORCES) UNLESS OTHERWISE DESIGNATED IN THE PLANS. PROVIDE A MINIMUM 30 CALENDAR DAY NOTICE TO STATE FORCES BEFORE A ROADWAY IS CLOSED TO TRAFFIC SUCH THAT THE NECESSARY PROVISIONS CAN BE MADE TO INSTALL DETOUR ROUTE SIGNS, INFORM LOCAL EMERGENCY AND LAW ENFORCEMENT PERSONNEL, SCHOOLS, OR ANY OTHER PARTIES AFFECTED BY THE ROAD CLOSURE.

3. INSTALL SIGNS BEFORE THE BARRIACDES WHEN CLOSING THE ROADWAY TO TRAFFIC. REMOVE BARRIACDES BEFORE SIGNS WHEN OPENING THE ROADWAY TO TRAFFIC. INSTALL/REMOVE SIGNS AND BARRIACDES WITHIN THE SAME CALENDAR DAY.

4. USE ADDITIONAL TYPE III BARRIACDES IN STAGGERED LOCATIONS SUPPLEMENTED WITH SIGN R11-4 "ROAD CLOSED TO TRAFFIC" IN THE EVENT THAT TRAFFIC MUST BE MAINTAINED BEYOND THE DETOUR POINT.

5. DO NOT DISPLAY FRACTIONS OR DECIMALS ON SIGN R11-3 "ROAD CLOSED XX MILES BEYOND".

6. POSITION WING BARRIACDES ON THE SHOULDER AND SLIDE THE STRIPES DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING.

7. USE PORTABLE SIGNS IF ROAD CLOSURE IS TO BE IMPLEMENTED FOR LESS THAN THREE DAYS, OR FOR EMERGENCIES.

Source:
MUTCD Road Closure

Notes for Figure 6H-8—Typical Application 8
Road Closure with an Off-Site Detour

Guidance:
1. Regulatory traffic control devices should be modified as needed for the duration of the detour.

Option:
2. If the road is opened for some distance beyond the intersection and/or there are significant origin/destination points beyond the intersection, the ROAD CLOSED and DETOUR signs on Type 3 Barricades may be located at the edge of the traveled way.
3. A Route Sign Directional assembly may be placed on the far left corner of the intersection to augment or replace the one shown on the near right corner.
4. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
5. Cardinal direction plaques may be used with route signs.

Temporary Road Closure

Flagger Operations with Lane Closure

TMP Resources

  - Contains sample TMPs, presentations, and TMP development resources

  - Contains a TMP Checklist and matrix of TMP strategies

Questions?