

Q8. What are five categories that describe “location of work”?

A8. The choice of TTC needed for a TTC zone depends upon where the work is located. The OMUTCD describes five categories:

- Outside the shoulder;
- On the shoulder with no encroachment;
- On the shoulder with minor encroachment;
- Within the median; and
- Within the traveled way.

As a general rule, the closer the work is to road users, the greater the number of TTC devices that are needed.

Q9. What are some examples of traffic control devices?

A9. The OMUTCD discusses various types of traffic control devices used in TTC zones, which include:

- Signs used for temporary traffic control
- Portable Changeable Message Signs
- Arrow Panels
- Channelizing Devices, including Cones, Tubular Markers, Vertical Panels, Drums, and Barricades

It is important to comply with the applicable OMUTCD standards for colors, sizes, dimensions, retroreflectivity, minimum heights, positioning, crashworthiness, and proper use of traffic control devices in work zones.

Q10. Where can we find information about how to make TTC zones safer for workers?

A10. Refer to OMUTCD Section 6D.03, Worker Safety Considerations. This section addresses key elements of worker safety and TTC management, including employee training, use of high-visibility safety apparel, and the role of a competent person in worker safety planning and assessment.

Q11. Where can we find information about proper flagging procedures?

A11. Refer to OMUTCD Chapter 6E, Flagger Control.

Q12. What steps can we take to help prevent work zone crashes/incidents and reduce potential liability?

A12. The following are recommended:

- Get to know **Part 6 of the Ohio MUTCD** (current version). Copies of the Temporary Traffic Control Manual (TTCM), which includes Part 6, can be purchased for \$8 each by calling the ODOT Office of Contracts at 1-800-459-3778. Local government agencies in Ohio can receive one free copy of the OMUTCD by calling 614-466-4700.
- Use Part 6 to develop **temporary traffic control plans** to provide safety for motorists, workers, bicyclists, pedestrians, and other road users (see Chapters 6A and 6B).
- Provide **training** for workers, supervisors, and others involved in work zone activities.
- Designate one or more **competent persons** to be responsible for worker safety planning and assessment. Per OSHA, a “competent person” means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- Consider **public relations activities** to let road users know about scheduled road work. These may include announcements issued by newspaper, television, radio, website, or other media.

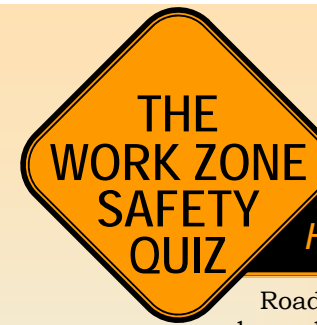
Resources for Additional Information ...



Ohio LTAP — 614-387-7358;
877-800-0031.



ODOT Office of Traffic Engineering —
614-466-0139 (Work Zone section);
614-644-8143 (Standards section).



Knowledge Can Help Save Lives

Roadway work zones can be hazardous for workers, motorists, and other road users. But all of us can take positive steps to improve work zone safety. Knowing how to properly plan, set up, manage, and drive through or around work zones can help to avoid potential problems ... *and save lives.*

This brochure provides a series of questions and answers that can be used as a good starting point for learning more about this important topic. Please feel free to share and discuss this information with others.

Q1. How many work zone fatalities occur nationwide each year?

Q2. What publication contains the standards and guidelines for roadway work zones in Ohio?

Q3. What are four types of roadway activities that commonly impact the flow of traffic?

Q4. What is “TTC”?

Q5. What are four components of a typical work zone?

Q6. Where can we find examples of typical work zone set-ups?

Q7. What are five categories of “work duration”?

Q8. What are five categories that describe “location of work”?

Q9. What are some examples of traffic control devices?

Q10. Where can we find information about how to make TTC zones safer for workers?

Q11. Where can we find information about proper flagging procedures?

Q12. What steps can we take to help prevent work zone crashes/incidents and reduce potential liability?



Q1. How many work zone fatalities occur nationwide each year?

- A1.** Between 700 and 1,000 work zone fatalities occur nationwide in a typical year.
- On average, a work zone fatality occurs every 10 hours; and a work zone injury occurs every 13 minutes.
 - Four out of five work zone fatalities are motorists.
 - One in three work zone crashes is a rear-end collision.
 - Speeding and inattention are the most common causes of work zone crashes.
 - One in three work zone fatalities is drug- or alcohol-related.

In a typical year in Ohio, there are between 10 and 25 work zone fatalities, and more than 5,000 work zone-related crashes.

Q2. What publication contains the standards and guidelines for roadway work zones in Ohio?

- A2.** Per sections 4511.09 and 4511.11 of the Ohio Revised Code (ORC), the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) establishes statewide standards for the design and use of traffic control devices on all public roads, streets and highways in our state. **Part 6 (Temporary Traffic Control) of the OMUTCD** contains the standards and guidelines for roadway work zones in Ohio.

The OMUTCD is published by the Ohio Department of Transportation's Office of Traffic Engineering, and is typically revised or updated every few years. It is important to use the current version of the manual. The Ohio MUTCD is required to be in substantial conformance to the national MUTCD, which is published by the Federal Highway Administration (FHWA).

Q3. What are four types of roadway activities that commonly impact the flow of traffic?

- A3.** The movement of motor vehicle, bicycle, and pedestrian traffic is commonly impacted by the following types of activities:
- Construction
 - Maintenance
 - Utility
 - Incident (such as a crash, emergency, natural disaster, or other unplanned event)

Q4. What is "TTC"?

- A4.** Per the OMUTCD, "TTC" refers to "temporary traffic control". The primary purpose of TTC is to provide for the reasonably safe and efficient movement of road users through or around TTC zones while reasonably protecting workers, responders to traffic incidents, and equipment. The term "work zone" is often used as an informal way to refer to a temporary traffic control zone.

Experience has shown that following the fundamental principles of OMUTCD Part 6 will assist road users and help protect workers in TTC zones.

Q5. What are four components of a typical work zone?

- A5.** The OMUTCD describes the following four areas of a typical TTC zone.
- *Advance Warning Area* – tells traffic what to expect ahead.
 - *Transition Area* – moves traffic out of its normal path.
 - *Activity Area* – where the work takes place.
 - *Termination Area* – lets traffic resume normal operations.

Q6. Where can we find examples of typical work zone set-ups?

- A6.** OMUTCD Chapter 6H provides 46 typical applications for TTC zones, which show examples for the use of advance warning signs, channelizing devices, flaggers, shadow vehicles, and other devices and treatments. While not every possible situation is addressed, the information provided can generally be adapted to a broad range of conditions.

Many variables affect the needs of each work zone, including roadway characteristics and the volume, speed and mix of traffic (cars, trucks and buses). Four factors used to characterize the typical applications are work duration, work location, work type, and highway type.

Q7. What are five categories of "work duration"?

- A7.** Work duration is a major factor in determining the number and types of devices used in TTC zones. The OMUTCD defines five categories:
- *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.

