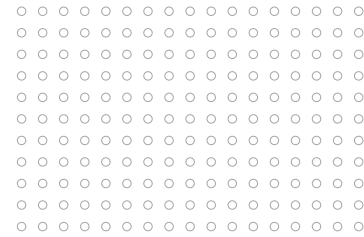


Work Zone Safety

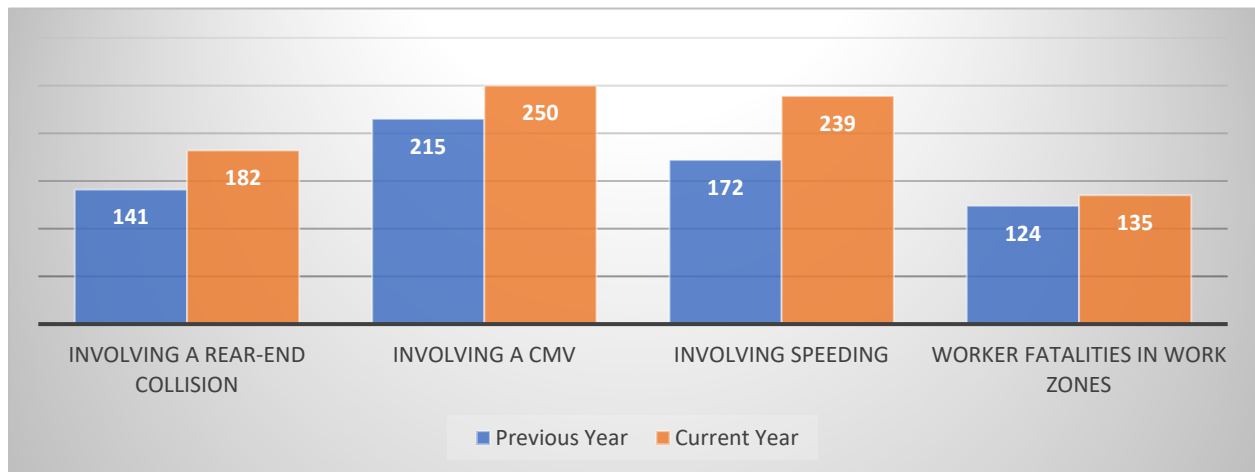
National Work Zone Awareness Week (NWZAW)



National Work Zone Awareness Week (NWZAW) is an annual spring campaign led by the Federal Highway Administration (FHWA). This year, NWZAW is April 11th – 15th and non-coincidentally occurs during Distracted Driving Awareness month. NWZAW aims to raise awareness and encourage safe driving in and around highway work zone areas to prevent injuries and fatalities. NWZAW has been successful in spreading awareness for work zone safety across the country because of participation from organizations and individuals just like you.

An Alarming Trend

Historical data from the National Highway Traffic Safety Administration (NHTSA) shows that work zones can be very dangerous areas. The most recent data reflects an 11% increase in work zone fatalities from the previous year bringing the total up to 842 deaths. Over the past 10 years work zone fatalities have gone up 44% and approximately 38% of pedestrian fatalities in work zones each year are roadway workers who are struck and killed by vehicles.¹



The following types of fatal work zone crashes increased over the last year.²

Everyone working in or passing through work zones is exposed to certain hazards. Some include:

Worker Hazards

- Struck by motorist vehicle
- Struck by construction vehicle
- Caught in/between vehicles and stationary objects
- Falls from vehicles and rollovers
- Angry motorists

Motorist Hazards

- Entering buffer or work zone as traffic controls are setup or removed
- Merging as lane closes from road taper
- Traffic congestion and delays leading to distracted driving
- Collisions with other vehicles or workers

¹ Data from the Bureau of Labor Statistics (BLS)

² Data from the National Highway Transportation Safety Administration (NHTSA)

Employer Precautions

Employers should take the time to talk about NWZAW with their employees to raise awareness and educate as to how they can work as safely as possible in these work zones. Coupling this increased knowledge and awareness with appropriate safeguards and tools necessary to stay safe is the best way to prevent your employees from being injured or worse while in work zones.

- Policies, procedures, and training – Incorporating the requirements and best practices put in place by OSHA, DOT, and other agencies is a great place to start. Once you understand the requirements and have a strong foundation, establish a training frequency that is appropriate for your company.
- Traffic control plans – Supplemental to your general policies and procedures which outline the requirements for work zones, employers should develop internal and external traffic control plans (TCPs). The external plan focuses on providing a reasonably safe environment for drivers to navigate through the work zone, and the internal plan focuses on coordinating the flow of construction vehicles, equipment, and workers within the work zone.
- Signs, signals, and barricades – OSHA has adopted and requires that employers conform to the Federal Highway Administration’s Manual on Uniform Traffic Control Devices (MUTCD). Work zones must have appropriate barricades, signage, and tapers when lanes are being reduced in accordance with these requirements.
- Additional controls – Using the correct high-visibility vests, barricades, signage, and being aware of your surroundings are all critical, but it is important not to overlook other hazards that exist within the work zone. For example, road work often involves potential exposure to silica dust, trenching/excavations, and other safety topics such as heat/cold stress, ergonomics, etc. Take time to review the project scope and plan to ensure that all safety-related matters are addressed and eliminated or appropriately controlled.

Temporary Traffic Control Zones (TTC)

Temporary Traffic Control Zones may sometimes not have all the proper components, creating motorist and worker hazards. A Temporary Traffic Control (TTC) plan describes 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, standard approved highway agency drawings and manuals or specific drawings contained in contract documents. The degree of detail in the TTC plan depends entirely on the nature and complexity of the situation.

There are four main components to TTC:

1. **Advanced Warning Area** – *section where road users are informed of upcoming work zone*
 - a. Use additional signage (more than the minimum, 3 signs called out in the MUTCD)
 - b. Use optional methods spelled out in the MUTCD & consider other methods to get drivers attention:
 - i. Rumble strips
 - ii. Noise attenuators
 - iii. Additional flashing & blinking attenuators
 - iv. Use of advance warning vehicles
2. **Transition Area** – *moves traffic out of its normal path*
 - a. Internal company policies can dictate that tapers will be longer than MUTCD/state guidelines
 - b. Increase buffer space in TTC and consider installing truck mounted attenuators (TMAs) on company vehicles parked in the buffer zone
 - c. Internal policy can require that barrier vehicles or shadow vehicles be parked in the buffer zone
3. **Activity Area** – *where work takes place, including a buffer space*
 - a. Use the heaviest shadow vehicles available to minimize post collision “roll- ahead”

- b. Consider the use of portable positive protection devices (Balsi Beam, Steel Barrier, etc.)
 4. Termination Area – *lets traffic resume to normal travel*
 - a. Consider including law enforcement in your TTC plan if appropriate

*Refer to Manual on Uniform Traffic Control Devices (MUTCD) [Fig. 6C-1](#) for a diagram depicting a TTC area.

Traffic Control Plans

When forming your TTC plan it is important to identify key players & ensure they have received the proper training. Training requirements also vary by state so it's important to become familiar with the conditions applicable to where you'll be working.

Traffic Control Supervisor – The Traffic Control Supervisor is actively involved in designing or setting up and maintaining temporary traffic control in a work zone.

At minimum, Traffic Control Supervisors must complete the American Traffic Safety Services Association (ATSSA) or equivalent Traffic Control Technician and Traffic Control Supervisor courses

Traffic Control Technicians – Traffic control technicians may set up and maintain work zones at the direction of the Traffic Control Supervisor.

At minimum, Traffic Control Technicians must complete the ATSSA or equivalent Traffic Control Technician course

Flaggers – The flagger's role is to protect project personnel and provide safe, courteous, and authoritative directions to traffic seeking passage through the work area.

At minimum, all flaggers must complete the ATSSA or equivalent Flagger Certification Course. Flaggers must use the correct PPE and proper signaling devices

Forming the Plan

- Obtain an overhead view of the roadway that you will be working on
- List the types of processes, locations within the roadway and the locations of access and egress needed for construction-related traffic
- Identify the significant intersections and access points that may intersect within the traffic control zone
- Identify and contact businesses and/or residents whose access points fall within the traffic control zone or would otherwise be affected by the worksite
- Assign locations for traffic control devices (cones and barricades) and advanced warning signs for use to direct traffic through the work zone. Take environmental conditions such as illumination, weather, and traffic speed into consideration
- Assure that the plan incorporates all applicable Federal and State regulations
- Maintain a Qualified Products List (QPL) – A list of devices your firm utilizes that are approved for use on projects. These devices would meet crashworthiness requirements and state/agency specifications

Employee Safety

- Train all workers on how to work near traffic in a way that minimizes their vulnerability
- Work during off-peak hours and park off the travel way as much as possible
- High visibility apparel must be worn and it must be maintained and regularly cleaned to preserve visibility
- Ensure that employees not actively engaged in activities near active roadways are not allowed in the area
- Keep all tools and equipment well away from active roadways when not in use
- Inform drivers that on how to safely enter and exit the work areas
- Equip flaggers with two-way radios to communicate with other employees

- Rotate flaggers to different locations on the job site to eliminate monotony
- Provide regular breaks to flaggers

Maintenance & Inspections

- Continuously perform inspections of all barricades, cones, lights, flagging and other traffic and pedestrian warning devices.
 - Correct fallen, misplaced and damaged items as needed
 - It is recommended to document TTC with photos twice a day
 - Utilizing drones can be an efficient option
 - Some states/DOT contracts require 24/7 monitoring and immediate repositioning if out of place
- Remove or cover all signs or devices when not in use to avoid confusing motorists

Working at Night and Staging Equipment

- Place lighting for nighttime work to give drivers a better understanding of the work area
 - Exercise care to prevent blinding
 - Make sure devices used for nighttime are reflective or illuminated
 - Use steady burning lights for channelization and flashing lights for warnings
- The parking and storage of equipment must be done in a manner which:
 - It does not pose a threat to oncoming traffic or the active thoroughfare without adequate warning devices in place
 - It does not block the view of motorist at intersections and other public access to roadways
 - Deters unauthorized use or operation of the equipment by removing keys, locking cabs and controls or barricading equipment

Additional Resources

- [National Work Zone Awareness Week Landing Page](#)
- [National Work Zone Awareness Week Toolkit](#)
- [MUTCD Part 6 – Temporary Traffic Control](#)
- [US DOT Work Zone Best Practices Guidebook](#)
- [Roadway Safety Toolbox Talks](#)
- [OSHA Work Zone Safety](#)

Should you have any questions or need any assistance, please contact HUB Risk Services Division.

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