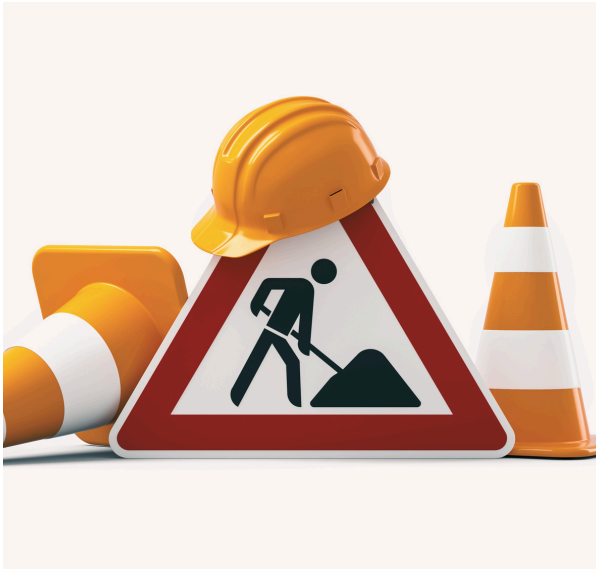
CONSTRUCTION RISK INSIGHTS

By Associates Insurance Agency



ENSURING ROADWAY SAFETY IN WORK ZONES

Building and repairing roadways and maintaining nearby utilities are common projects in the construction sector. Yet, operating in work zones—stretches of highway where construction, maintenance and utility tasks are taking place—can pose a number of safety hazards. These hazards can have significant ramifications, affecting construction workers, motorists and pedestrians.

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According to the Centers for Disease Control and Prevention, 96,000 roadway crashes occur in work zones each year, resulting in nearly 37,000 injuries and 900 fatalities. Considering these findings, it's imperative for construction employers to implement proper safety precautions in work zones, therefore protecting both their staff and the public. This article outlines key work zone hazards and offers related mitigation strategies.

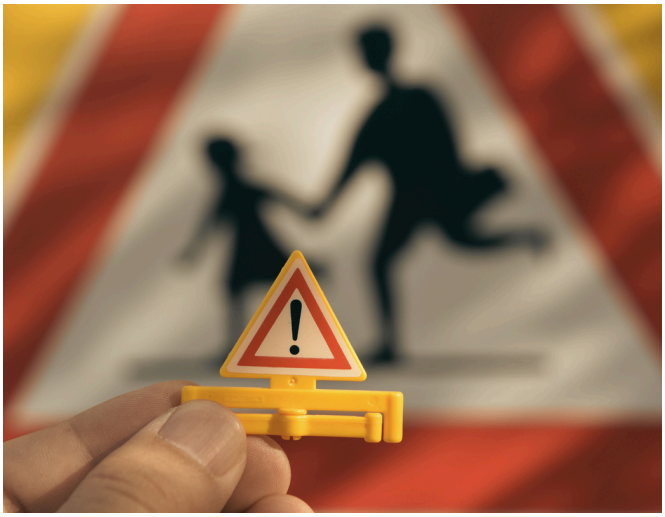
> 96,000 ROADWAY CRASHES OCCUR IN WORK ZONES EACH YEAR

COMMON WORK ZONE HAZARDS

Work zones carry several safety hazards, largely due to construction employees working near busy roadways, dump trucks entering and exiting construction areas, flaggers redirecting traffic and lanes shifting unexpectedly. These conditions can distract unsuspecting pedestrians and motorists and hinder construction workers' visibility, prompting serious crashes and other incidents. The top hazards stemming from work zones include:

- **Caught-in-and-between incidents**—These incidents refer to an individual becoming squeezed, pinched or compressed between multiple objects or parts of an object. Such incidents can occur in work zones if construction employees or pedestrians get crushed or otherwise caught in heavy operating equipment or machinery on the roadway.
- **Struck-by incidents**—These incidents involve an individual getting hit by a moving object or piece of equipment. Such incidents can occur in work zones if motorists and equipment operators collide or strike nearby construction employees or pedestrians while traveling on the roadway.

Growing funding for highway restoration projects has contributed to a surge in roadway construction and associated work zones throughout the country. This trend, combined with high speed limits, extensive traffic congestion and impatient motorists, has only compounded work zone safety hazards and related injuries and fatalities over the past decade, according to the National Highway Traffic Safety Administration.

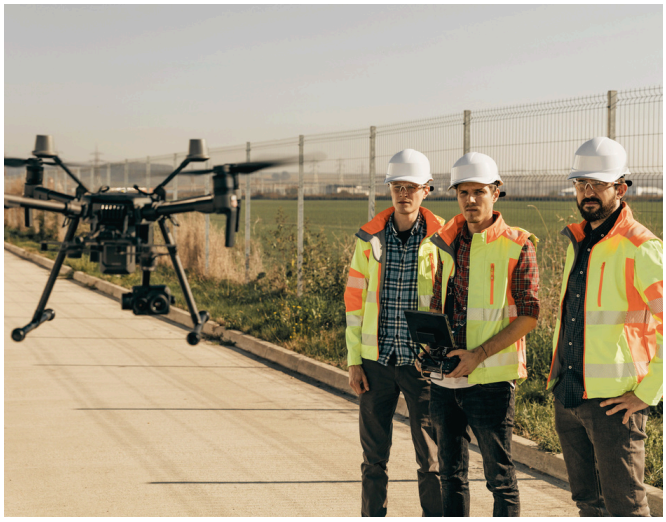


> EMPLOYERS COULD ENCOUNTER COSTLY WORKERS' COMPENSATION CLAIMS FROM INJURED EMPLOYEES

MITIGATION STRATEGIES

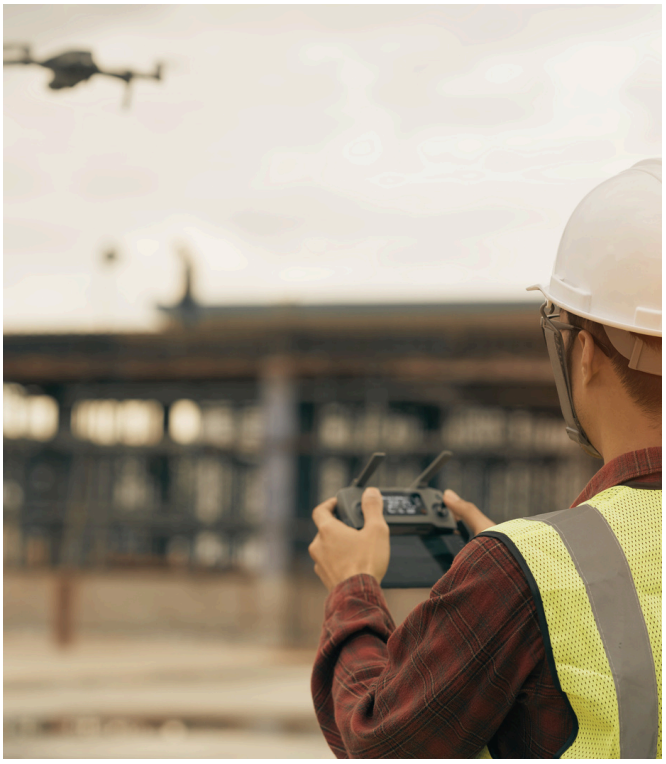
When work zone incidents occur during their assigned projects, construction employers may face various consequences. In addition to the tragic loss of life that these incidents can cause, employers could encounter costly workers' compensation claims from injured employees, diminished staff morale and productivity, large-scale lawsuits from impacted motorists and pedestrians (or their bereaved loved ones), lasting reputational damage and compounded insurance expenses. As such, it's crucial for construction employers to take work zone hazards seriously and utilize adequate mitigation measures.

- **Establish a safety program.** This program should outline safe operating procedures for machinery and equipment, highlight personal protective equipment (PPE) requirements for different tasks, and encourage open communication between employees and supervisors to discuss ongoing occupational hazards. As it pertains to work zones, an effective safety program should include the following protocols:
  - Employees must conduct pre- and post-shift inspections of machinery and equipment, conducting maintenance and repairs as needed. Staff should never operate broken, defective or otherwise damaged equipment.
  - High-visibility PPE (i.e., reflective hats and vests) must be worn at all times in work zones.
  - Employees need to make visual contact and communicate with all nearby workers, especially those on foot, before moving any machinery or equipment. Additionally, staff must keep their seat belts on whenever this equipment is in motion and activate the parking brakes before leaving it unattended.
  - Any unaddressed work zone safety hazards should be promptly reported to a supervisor.
- **Adopt a traffic control plan (TCP).** The purpose of a TCP is to limit traffic disruptions caused by a work zone and keep the area as safe as possible for all parties involved. This plan should create clear walking paths for employees and pedestrians and outline steps to help equipment operators and motorists travel smoothly through a work zone. While exact details in a TCP will vary based on the complexity of the road construction project at hand and applicable traffic laws, it should list temporary controls for each of the four sections surrounding a work zone:
  1. **The advance warning area**—This section refers to the portion of the roadway just before construction begins. Proper signage warning motorists and pedestrians of the upcoming work zone and message boards explaining how traffic patterns will change are critical for this area.
  2. **The transition area**—This section pertains to the portion of the roadway where motorists are redirected from their normal paths to a designated route away from the work zone. It should include detailed arrow paneling and a lower speed limit, thus giving motorists plenty of time to merge or change lanes. This detour should reduce the risk of traffic congestion while still upholding highway safety.
  3. **The activity area**—This section entails the portion of the roadway where construction is taking place. Apart from a safe path for traffic to flow through, it should include a separate area for employees, equipment and machinery, and construction materials. This area should establish plenty of buffer space between moving vehicles and workers and set up a physical barrier as an extra layer of protection (e.g., traffic cones or barricades).
  4. **The termination area**—This section encompasses the portion of the roadway immediately after construction ends. Similar to the transition area, this section should include arrow paneling and other visual cues to safely redirect motorists and allow them to resume their usual traffic patterns.



DRONES AND TELEMATICS SOFTWARE CAN ENHANCE WORK ZONE VISIBILITY

- **Invest in technology solutions.** Certain technology offerings can also help reduce work zone safety hazards. Namely, automated flagger devices, which are typically operated by human flaggers positioned at protected vantage points, utilize robotic gate arms and caution lights to redirect motorists away from road construction. Furthermore, drones and telematics software can enhance work zone visibility by collecting real-time pictures, video footage and data to identify safety issues before they escalate and cause major incidents.
- **Educate employees.** It's essential for staff to receive awareness training on common work zone hazards and how to minimize them. This training should provide an in-depth overview of all work zone protocols outlined in the safety program and the TCP and explain how to report any unaddressed hazards. Employees should get a refresher on this training every time they begin working on a new road construction project. Such training should be supplemented by daily on-site safety talks highlighting examples of near-miss and actual incidents in work zones. These incidents can showcase what could happen if something goes wrong on the job and reinforce the importance of maintaining a safe work environment.



CONCLUSION

Work zones may present substantial safety hazards for construction employees, motorists and pedestrians alike. By better understanding these hazards and upholding effective mitigation strategies, employers can avoid possible incidents and ensure safe and successful road construction projects.

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