Work Zone Safety
Nation wide Work Zone Fatalities

According to the Work Zone safety website, 143 highway construction workers were killed in 2016.
Work Zone Safety

Compliance with all the laws and regulations alone will not provide the safest work environment for you.
Assess the Risks

Always start the job/task (and as conditions change) with a safety huddle to either mitigate or eliminate hazards.
High-visibility safety apparel should be replaced when it becomes faded, torn, dirty, soiled, worn, or defaced, or if it is not visible at 1,000 feet day or night. The typical useful service life of high-visibility safety apparel depends on the type of work an individual performs while wearing the apparel. OMG has moved to a standard of Class III vests/T-shirts at all times.
Audible Communications

- Ensure back-up alarms are in good working condition
- Radios are in working order
Spotters/Hand Signals

- Spotters/Signal Persons should not have any other work duties when directing operators.
- Spotters should not use cell phones, radios, headphones or any other distracting devices not related to their task.
- Only one person should give signals at a time.
- Hand signals require clear understanding of the meaning of each signal.
Paver Lights
Using a cell phone while driving makes it four times as likely that you’ll crash - while using either handheld or hands-free devices.

Mobile Phone/Electronic Device Usage Policy
For
Oldcastle Materials, Inc.

The use of mobile phones or certain electronic devices are important tools, but there are certain restrictions we have to implement in order to keep ourselves and those around us safe when it comes to the use of these type devices.

This policy addresses the use of all mobile electronic devices at work, including but not limited to hand-held mobile/cordless telephones, laptop computers, mobile phones, mp3 players, iPods, tablets, etc.
Increase Equipment Visibility

- Use strobe lights
- Reflective tape
- Ensure all lights are working properly
Examples of Work Zone Protection Devices
Examples of Work Zone Protection Devices
Walk Around Vehicle Before Backing

G. O. A. L.
GET OUT AND LOOK
Provide Additional Law Enforcement
Always Wear Your Seatbelt
Enhanced Lighting for Night Work

- Consider using glare-free balloon lights and glare screens
- Lower the height of lighting equipment
- Drive through the work zone during night time hours after setting up lighting
Ensure that Signage is Effective
Utilize a Traffic Control Checklist

WORK ZONE CHECKLIST

1. PAVEMENT DROP-OFFS & LOW SHOULDERS
   • All pavement drop-offs and curb lines comply with the project specifications or as otherwise directed in writing by the engineer.
   • No shoulder drop-offs or curb line exceed the limits set forth in the project specifications or pose a safety concern.
   • Notify the owner in writing of all excessive pavement drop-offs that will not be promptly eliminated by the project work or be protected by barriers.

2. TAPERS, CLEAR ZONES & TRANSITIONS
   • All clear zones, buffer zones, and tapers are the proper length and have the specified number of required devices.
   • All traffic control devices are properly installed and spaced.
   • All vehicles, equipment, or materials are stored in a clear zone or buffer zone. If possible, place vehicles, equipment, and materials behind a barrier.

3. CHANNELIZING DEVICES
   • All channelizing devices comply with the applicable specifications, including any specifications regarding reflectivity and prestressedness.
   • All channelizing devices are properly located and spaced.
   • No barriers are placed or anchored in the way of any channelizing device.

4. SIGNS
   • All signs comply with the project specifications and are in good condition.
   • All signs are properly installed and spaced.
   • All signs are the proper size and length.
   • All signs are clear, legible, clearly visible, and prestressed. (For example, no sign is hidden by vegetation, materials, or equipment)

5. PAVEMENT MARKINGS
   • All pavement markings comply with the project specifications and are in good condition.
   • All pavement markings are placed and maintained in accordance with the specifications or as directed in writing by the engineer.

6. FLAGGERS
   • All flaggers are trained, certified, using proper signaling procedures, and wearing personal protective equipment.
   • All flaggers are using proper equipment and are positioned properly.

7. CRASH CUSHIONS, ATTENUATORS, & TEMPORARY TRAFFIC BARRIERS
   • All crash cushions and attenuators are in good condition and are properly located on the project.
   • All crash cushions and attenuators are assembled in accordance with the manufacturer’s instructions.
   • All temporary traffic barriers have a safe distance ahead and are properly positioned on the project.

8. ARROW PANELS
   • All arrow panels comply with the project specifications and are in good condition.
   • All arrow panels are finished in nonreflective black and mounted in a proper location.
   • All arrow panels are capable of displaying the proper mode selections and dimming.
   • To the extent arrow panels are used to close multiple lanes, separate arrow panels have been used to close each lane.
   • All variable displaying arrow panels are equipped with high-intensity flashing light or street signs.

9. CHANGABLE MESSAGE SIGNS (CMS)
   • All CMS comply with the project specifications and are in good condition.
   • All CMS consist of either 1 or 2 phases, with each phase being no more than 6 lines and no more than 6 characters per line.
   • All CMS are legible in varying light conditions and have a control system that allows a message to be reviewed before it is displayed on the sign.
   • All CMS are equipped with a power source and backup battery to provide for continuous operation.
   • All CMS have messages that extend across horizontally or vertically across the face of the sign.

10. DRUMS
    • If there is standing water or a noticeable flat spot on a project, check the cross-eclipses and the associated drainage structures.
    • If there is a risk of standing water or drainage issues and the scope of work did not include drain the cross-eclips or drainage structures, notify the owner of the condition in writing.

11. MISCellanEOUS
    • Review the Internal Traffic Control Plan (ITCP) with all project participants.
    • All traffic control devices that are no longer required have been removed or covered in accordance with the project specifications.
    • Safe ingress and egress has been established at the work site.
    • Law enforcement is enforcing a speed limit within the work zone.
    • Adequate lighting is being provided for night operations.
    • Advanced notification of detours, bicycle path, and bus stop closures has been provided or alternate route accommodations have been identified in accordance with the project specifications as directed in writing by the engineer.
    • Document any changes to the Traffic Control Plan regulated by the owner engineer and law enforcement in writing.
    • Contact your supervisor if you need to obtain a form letter to provide written notice of any problematic condition.
Keep Your Distance

Stay within 10 feet of moving equipment. Wait for a clear signal from the operator before approaching equipment.
Technology Can Help

There are a variety of technologies—old and new—that have been developed to warn drivers and operators when workers on foot are near, including:

- Alarms
- Cameras
- Radar
- Sonar
An effective internal traffic control plan (ITCP) informs all parties operating within the work space about the location of others. It creates zones designed to minimize interaction between workers on foot and construction vehicles/equipment.

The ITCP should include things such as:

- Reduce the need to back up equipment
- Limit access points to work zones
- Establish pedestrian-free areas where possible
- Provide signs within the work zone to give guidance to pedestrians, equipment and trucks
Provide Additional Training

Specialized Training for:
– Maintenance of Traffic (MOT) personnel
– Flaggers
– Operators
Work Zone Safety Training

Utilize the NAPA/ARTBA Roadway Safety Program for additional training.
AWARE
SENTRY

⚠️ Lighten the Weight (>50lbs)
⚠️ Increase light height and visibility
⚠️ Smaller more portable case
⚠️ Quick easy Set Up
⚠️ 15 Hours Battery Life

Proof of Concept
Prototype
New SENTRY
AWARE SENTRY (Flagger Cart)

Muscle Shoals, Alabama
Next Steps

- Final Testing
- Broader Oldcastle Deployment
- MnDOT Lane Intrusion Pilot
- Colorado DOT Specifications

Brigham City, UT I-15
Our Pledge

AT WORK and AT HOME
MAKE SAFETY OUR
FAMILY BUSINESS

When I SEE
something, I will STOP
and DO
something.