

WORK ZONE SAFETY

STATISTICS

Work zones are dangerous for workers and for motorists who drive through them. Employers, workers, and drivers can keep highway work zones safe. In 2004, in Virginia, there were

- 3,746 work zone crashes
- 1,536 injuries
- 15 fatalities



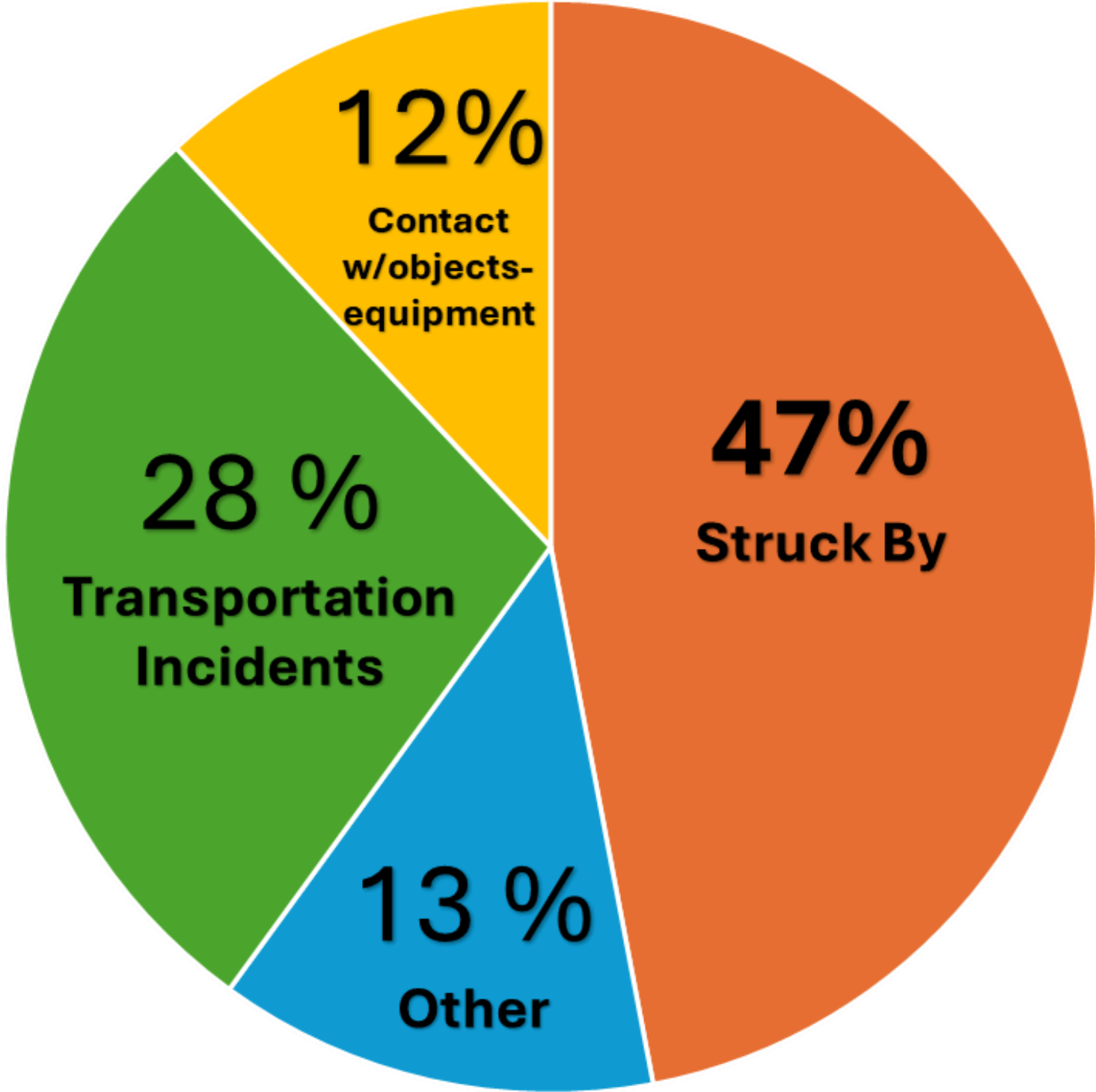
DEFINITION

A designated area of a road or highway where construction, maintenance, or utility work is being performed, marked by signs, cones, barrels, barriers, and work vehicles

There are over 400 work zones in VA



Causes of Roadway Worker Fatalities



■ Struck By ■ Other ■ Transportation incident ■ Contact with objects/equipment

STATISTICS



The leading cause of highway construction worker injuries and fatalities is contact with construction vehicles, objects, and equipment.

- 47 % Struck By Vehicle
 - 2 in 10 workers killed by a dump truck
 - 2 in 10 workers killed by backing vehicle
- Motorist behaviors
 - Distraction
 - Speeding
 - Impairment
 - Fatigue



STATISTICS

28 % Other Transportation Incident

- Incidents occurring on public roadways, including driving to and from the jobsite.

13 % Other

- Falls cause 6% of fatalities at road construction sites
- Trench and Excavation collapses led to 4% of deaths
- Electrocutions caused 3% of deaths.
- 12 % Contact With Others or Equipment

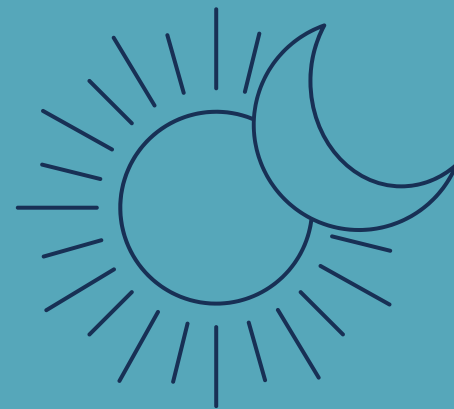


CAUSAL FACTORS

Work zone crashes can be caused by many main causes, as well as specific timing (day vs. night, seasonal patterns) and situational conditions such as lane closures and high-speed roadways.



Primary Causes



Timing



Situational

PRIMARY CAUSES

- **Distracted driving:** Inattentive drivers using phones, eating, or multitasking are a leading cause.
- **Speeding:** Exceeding the speed limit or driving too fast for conditions reduces reaction time.
- **Poor visibility:** Insufficient lighting, unclear signage, or bad weather can make it difficult for drivers to see workers, equipment, and lane changes.
- **Rear-end collisions:** These are the most common type of work zone crash, often caused by drivers who are not paying attention or who are following too closely.

TIMING



- **Day vs. Night:** More work zone crashes occur during the daytime, but fatal accidents have been found to be more hazardous at night.
- **Season:** Fatal work zone crashes often occur more frequently in the summer and fall months (May through September).
- **Day of the week:** While the question is about work zone accidents, one source notes that statistically, the most workplace accidents in general occur on Mondays.

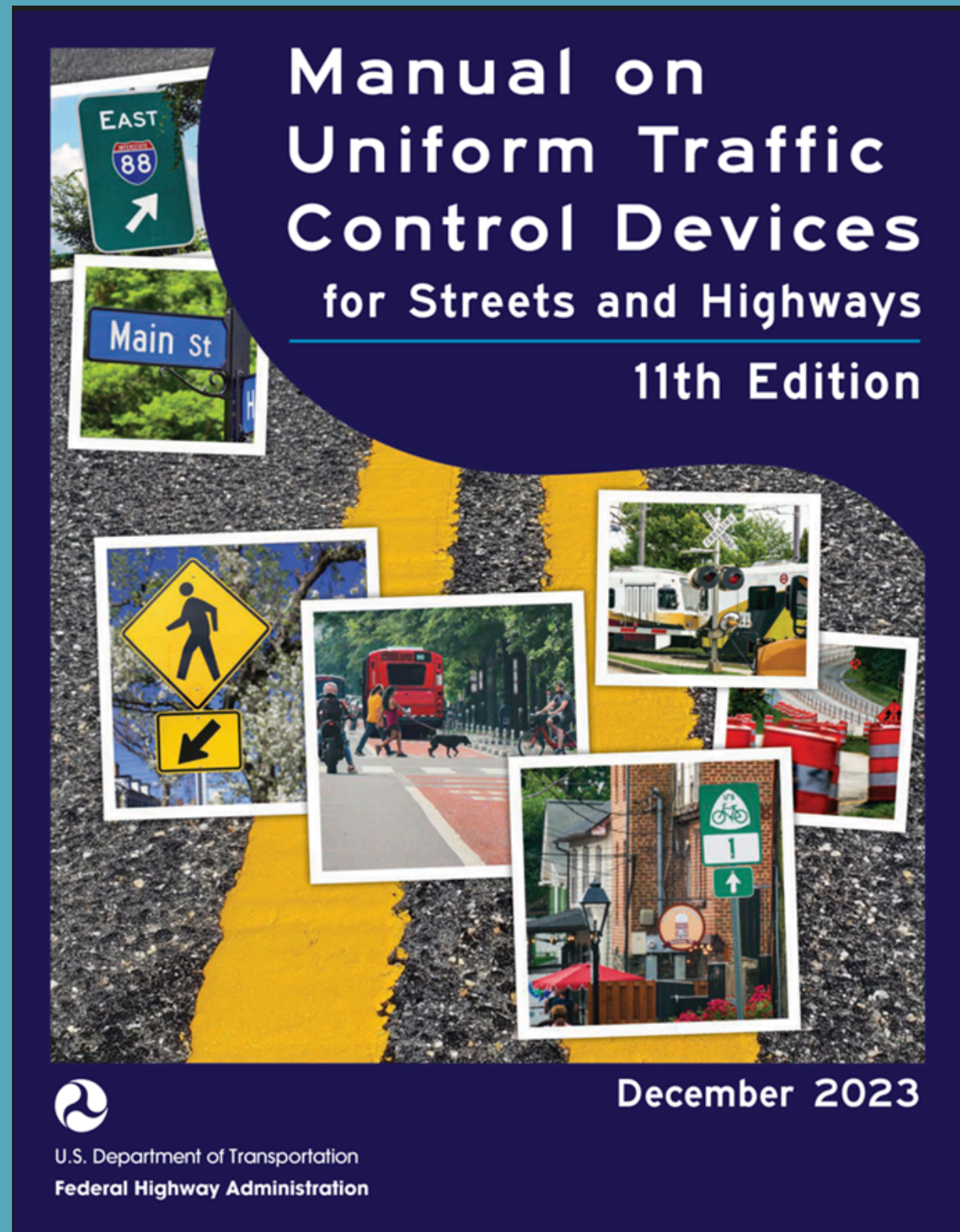
SITUATIONAL



- **Lane closures:** The highest number of crashes happen when lanes are closed.
- **High-speed roads:** Fatal crashes are more common on roads with speed limits of 55 mph or higher.
- **New roadway construction:** A significant portion of fatal crashes happen in areas of new roadway construction, compared to maintenance zones

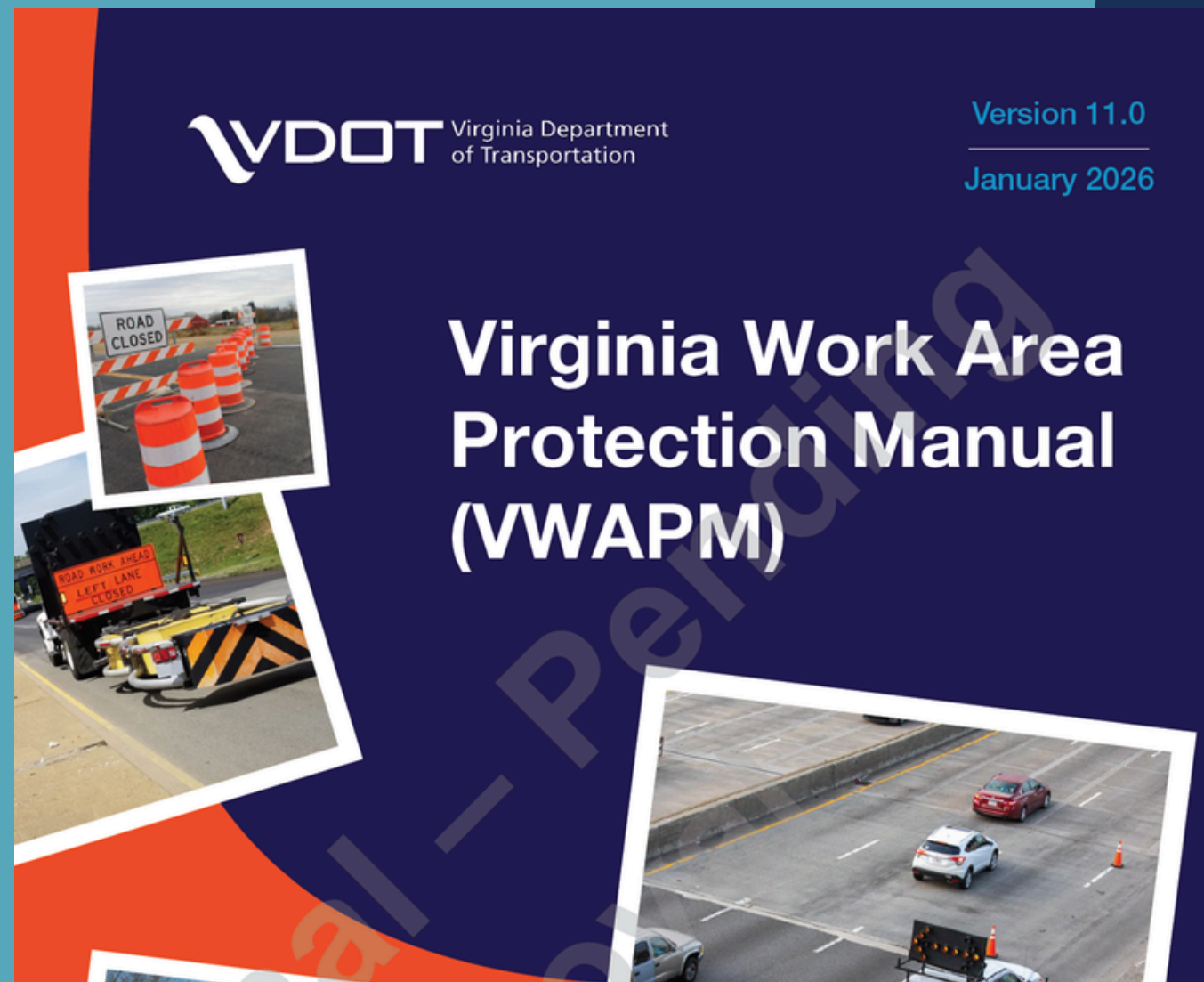


MANUAL (MUTCD)



- Compilation of national standards for all traffic control devices
- Defines the standards used by road managers nationwide to install and maintain traffic control devices
- The Virginia MUTCD is applicable to all traffic control devices under the jurisdiction of the Commonwealth of Virginia Department of Transportation (VDOT)

IN VIRGINIA



- Standards for creating temporary traffic control zones to protect workers, motorists, pedestrians, and bicyclists during road construction, maintenance, and other work.
- Part 6 of the state's version of the national Manual on Uniform Traffic Control Devices (MUTCD)
- Topics include lane closures, flagging, PPE and mobile operations.

OSHA/VOSH STANDARDS



1926.200-Accident prevention signs and tags

1926.201-Signaling

16VAC25-97-Reverse Signal Operation



16VAC25-60-130- Construction Industry Standards



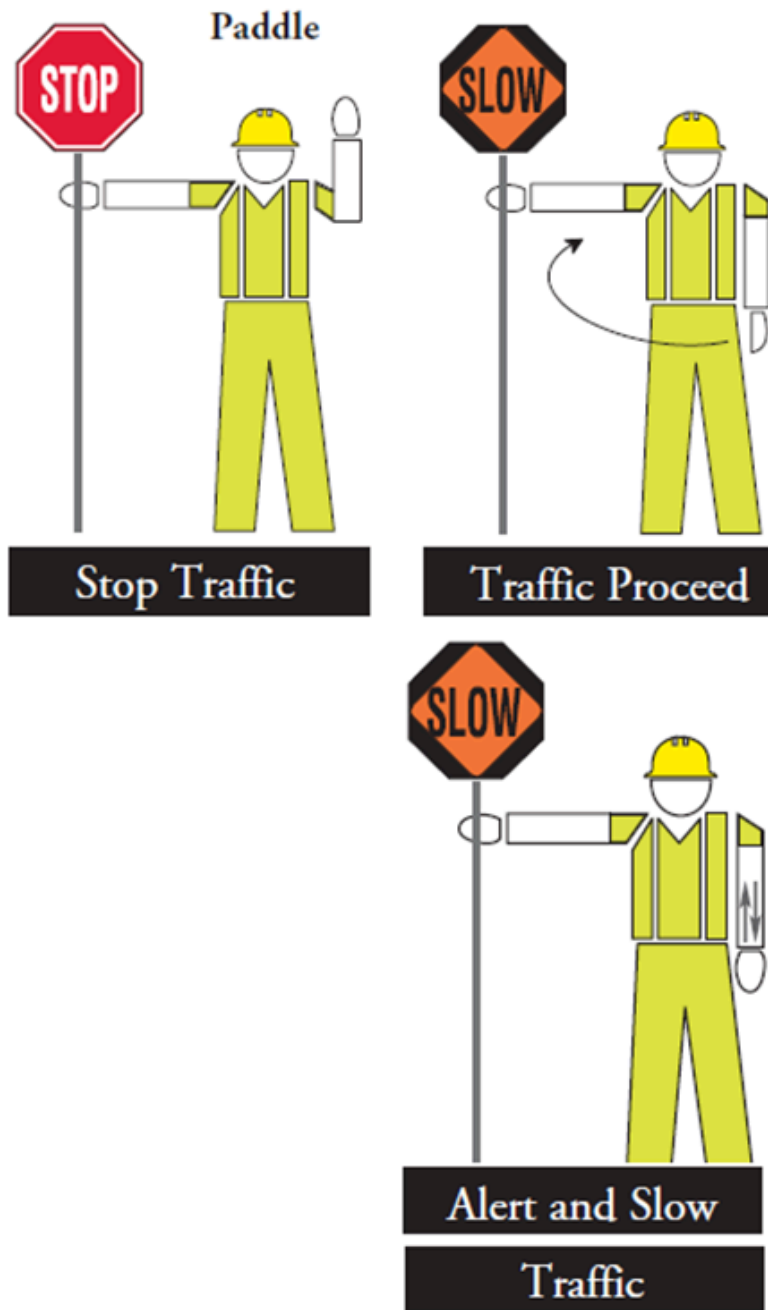
PPE REQUIREMENTS

Part 6 Section 6D.03 MUTCD – Requires high-visibility safety apparel by workers who are working within the rights-of-way of Federal-aid highways.

- High visibility garments—clothing designed to make the wearer more visible to vehicular traffic



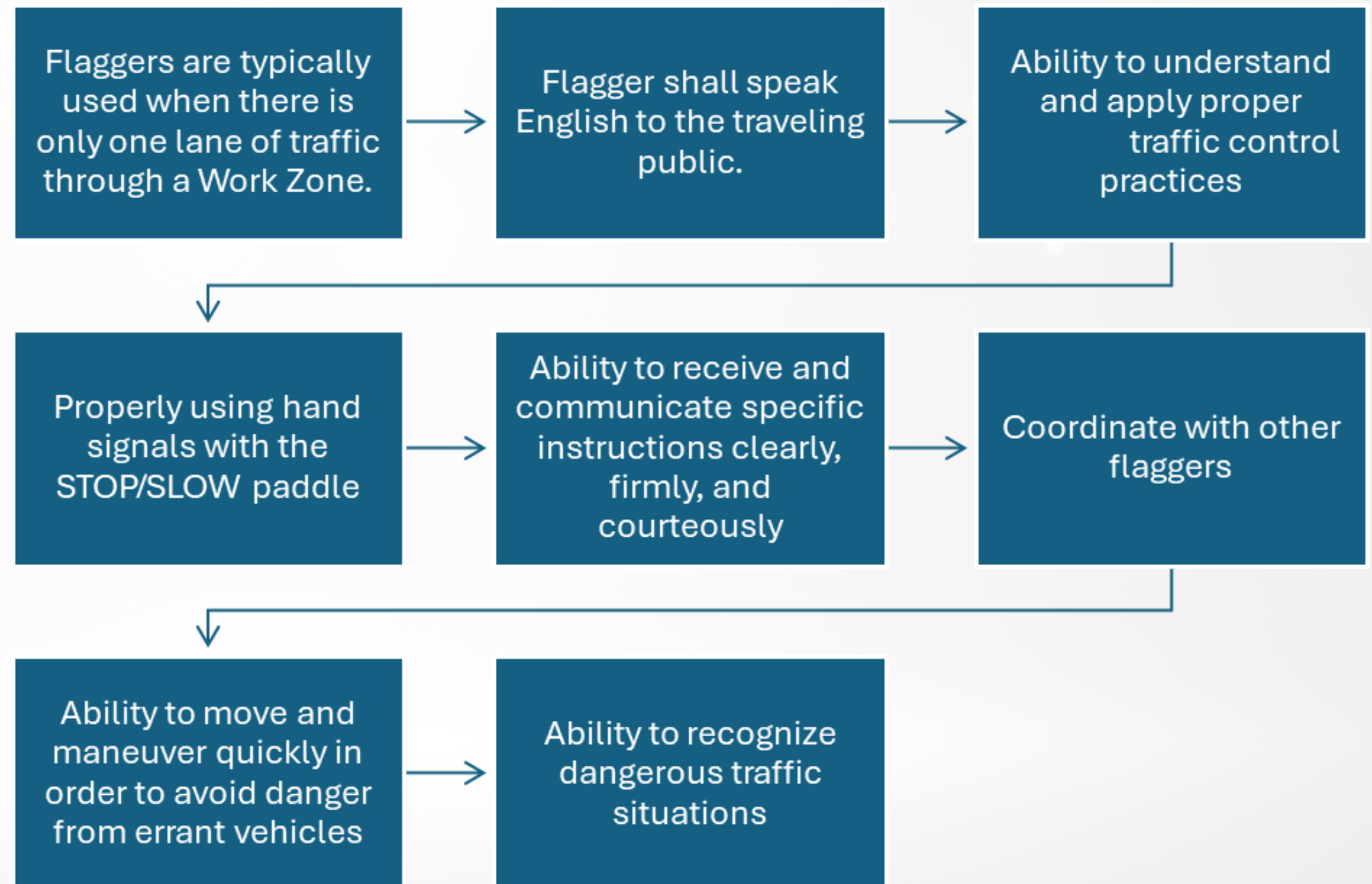
Flagging Procedures



Notes:

1. To maintain alertness, flaggers should be relieved every two hours for a minimum period of fifteen minutes.

FLAGGERS



WORK ZONE TOP 10



Improper placement of transitions.



Improper spacing of cones and drums.



Signs left up with no work activities.



Improper sign stands used.



Short transitions in lane closures.



WORK ZONE TOP 10



Improper placement of the TMA(Truck-Mounted Attenuator).



Use of non-reflective devices at night.



Lack of a buffer space in lane closures.



Improper flagging.



Lack of termination signing.



Recognize

As a motorist, slow down, follow signs, stay alert, avoid distractions, and keep a safe distance

An injury-free mindset will help make a safer work environment.

Hazard recognition is the first step in having a safe workplace.

Once you recognize the hazard, you must do something about it.

By controlling or eliminating the hazard, you have made the workplace safer.



Injury Free Culture

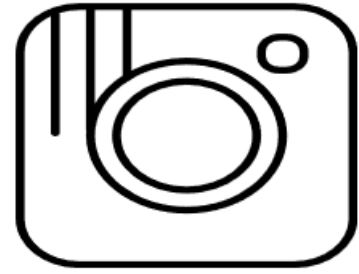


Ask yourself the question “What IF I could go my entire career injury free?”

Injury Free is a cultural attitude. It is a way of thinking that prevents injuries, making safety a high priority at both the personal and organizational levels.



<https://doli.virginia.gov/what-if/>



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