May 2015

ANSI/ASSE A10.47-2015 – BACKGROUND MATERIALS
WORKZONE SAFETY


Previous Versions: This is a revision of the existing standard, which was originally published for the first time in 2009 with an effective date of 2010.

Standard Approval Date of Final Action: 4/23/2015 Standards Action Publication Date: 5/1/2015


Why do ASSE Members and OSH Professionals Need This Standard?

Increased road congestion, more and more vehicle miles traveled, an aging highway infrastructure—these have all led to widespread work zone activity on U.S. highways, and in turn, to injury risks and exposures for workers. Although fatalities from motor vehicle crashes work zones continue to decrease overall during the last decade, workers engaged in construction, utility work, maintenance or repair activities on highways are exposed to risk of injury from:

- Movement of construction vehicles and equipment within work zones
- Passing motor vehicle traffic with high traffic volume and speeds
- Vehicle struck-by incidents
- Overturn, collision or being caught in running equipment
- Low lighting or low visibility
- Night work
- Inclement weather

We know from member response that the issue of workzone safety is of paramount importance for those companies with these types of hazards and exposures. Heightened public awareness and compliance with the Federal Highway Administration’s Manual on Uniform Traffic Control
Devices (MUTCD), as well as with OSHA and state regulations, can help create safer highway work zones, but as employers nationwide prepare for the construction season, OSH professionals want to know how they can also incorporate national voluntary consensus standards into work zone safety programs.

**Scope and Background Materials**

1. GENERAL

1.1 Scope. This standard covers employees engaged in construction, utility work, maintenance or repair activities on any area of a highway.

1.2 Purpose. Establishes the minimum requirements for the construction and maintenance of public and private highways and roads to achieve the following objectives:

1. Prevent employee injuries and illnesses resulting from working in work zones.

2. Establish safe work practices in highway work zones.

3. Prevent vehicular crashes in highway work zones.

2. RELATED AMERICAN NATIONAL STANDARDS AND OTHER REFERENCES

2.1 Related American National Standards. The American National Standards found in the ANSI/ASSE A10 Construction and Demolition Operation series contain materials and instructions related to other aspects of roadway construction and are beneficial to use, see the foreword of this standard for this listing. The following American National Standards are referred to, supplement or are related to this document. Provisions of other federal, state, local, ANSI or other standards creating organization standards that are applicable to roadway construction are to be considered. When American National Standards are superseded by a revision approved by the American National Standards Institute, the revision shall apply.

ANSI/ASSE A10.1, *Pre-Planning for Construction Safety and Health*

ANSI/ASSE A10.2 *Safety, Health, and Environmental Training*

ANSI/ASSE A10.12, *Safety Requirements for Excavation*


ANSI/ASSE A10.32, *Fall Protection Systems for Construction and Demolitions*

ANSI/ASSE A10.33, *Safety and Health Program Requirements for Multi-Employer Projects*
ANSI/ASSE A10.34, *Public Protection*

ANSI/ASSE A10.38, *Basic Elements of an Employer's Program to Provide a Safe and Healthful Work Environment*

ANSI/ASSE A10.40, *Reduction of Musculo-skeletal Problems in Construction*

ANSI/ASSE A10.44, *Control of Energy Sources (Lockout/Tagout) for Construction and Demolitions Operations*

ANSI/ASSE A10.46, *Hearing Loss Prevention in Construction and Demolition Workers*

ANSI/ISEA 107, *High Visibility Safety Apparel and Headwear*

ANSI/ISEA 207, *High-Visibility Safety Apparel and Headwear*

ANSI S2.73, *Mechanical Vibration and Shock - Hand-arm Vibration - Measurement and Evaluation of the Vibration Transmissibility of Gloves at the Palm of the Hand*

ANSI/ISEA Z87.1, *Occupational and Educational Personal Eye and Face Protection Devices*

ANSI/AIHA Z88.6, *Respiratory Protection - Respirator Use - Physical Qualifications for Personnel*

ANSI/ISEA Z89.1, *Industrial Head Protection*

AASHTO, *Manual for Assessing Safety Hardware (MASH)*

ASTM F2413, *Standard Specification for Performance Requirements for Foot Protection*

Department of Transportation (DOT) 49 CFR, *Transportation*

Federal Highway Administration, Department of Transportation (FHWA/DOT) 23 CFR, *Highways*

FHWA/DOT 23 CFR 630, Subpart J - *Work Zone Safety and Mobility*

FHWA/DOT 23 CFR 630, Subpart K - *Temporary Traffic Control Devices*

FHWA/DOT 23 CFR 634, Subpart J, *Worker Visibility*

FHWA/DOT 23 CFR Part 655, Subpart F, *Transportation Infrastructure Management*

Occupational Safety and Health Administration (OSHA), 29 CFR 1926, *Safety and Health Regulations for Construction*

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6.3 Backing Construction Vehicles and Equipment

### Internal Traffic Control Plans (ITCP)

6.4 Internal Traffic Control Plans (ITCP)

### Access and Egress to Work

6.5 Access and Egress to Work

### Distracted Driving and Semi-Autonomous Vehicle Operation

6.5 Distracted Driving and Semi-Autonomous Vehicle Operation

### Equipment Operator Safety

7. Equipment Operator Safety

#### Inspection and Maintenance of Equipment

7.1 Inspection and Maintenance of Equipment

#### Lockout/Tagout

7.2 Lockout/Tagout

#### Roll-Over Protection Structures (ROPS) and Seatbelts

7.3 Roll-Over Protection Structures (ROPS) and Seatbelts

#### Operator Qualifications

7.4 Operator Qualifications

#### Multiple Person Occupancy

7.5 Multiple Person Occupancy

### Excavation Safety

8. Excavation Safety

### Electrical Safety (Underground Utilities and Overhead Power Lines)

9. Electrical Safety (Underground Utilities and Overhead Power Lines)

#### Underground Installations

9.1 Underground Installations

#### Overhead High Voltage Lines, Installations and Equipment

9.2 Overhead High Voltage Lines, Installations and Equipment

### Power and Powder Actuated Tool Safety

10. Power and Powder Actuated Tool Safety

#### General

10.1 General

#### Guarding

10.2 Guarding

### Links and information related to ANSI/ASSE American National Standards

- [Office of Management & Budget Circular OMB-A119](https://www.osha.gov/dte/grant_materials/fy12/sh-23551-12/Mod3-WorkersonFoot.pptx)
- [Standards History Article](https://www.osha.gov/dte/grant_materials/fy11/sh-22285-11/Module2-WorkersonFoot.ppt)
- [Position Statement on Consensus Standards](https://www.osha.gov/dte/grant_materials/fy12/sh-23551-12/Mod3-WorkersonFoot.ppt)
- [What’s the Difference Between an OSHA Rule and an ANSI Standard?](https://www.osha.gov/dte/grant_materials/fy12/sh-23551-12/Mod3-WorkersonFoot.ppt)

### Examples of Recognition

#### U.S. DOL/OSHA:

- [https://www.osha.gov/dte/grant_materials/fy12/sh-23551-12/Mod3-WorkersonFoot.pptx](https://www.osha.gov/dte/grant_materials/fy12/sh-23551-12/Mod3-WorkersonFoot.pptx)
General Duty Clause Examples (5A1)

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CDC/NIOSH

http://www.cdc.gov/niosh/nas/construction/pdfs/06-CONAGoal1-3WorkZone%20Fosbroke_Final_wotxt.pdf

http://www.cdc.gov/niosh/nioshtic-2/20036510.html


http://www.cdc.gov/niosh/programs/const/noragoals/projects/927Z8UT.html

Other Examples of Recognition

