



# Work Zone Traffic Control Training Program

March 26th, 2018



- What's the Purpose of Today's Webinar?
  - Provide an overview of how the proposed work zone traffic control training program will impact day-to-day business
  - Identify who all will be impacted
  - Explain work zone traffic control training requirements
  - Evoke questions and comments from participants to refine policy

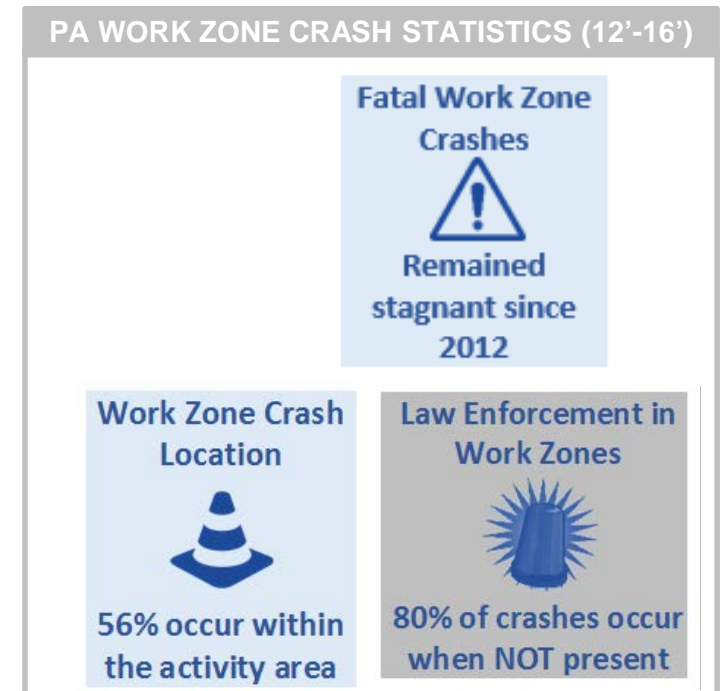
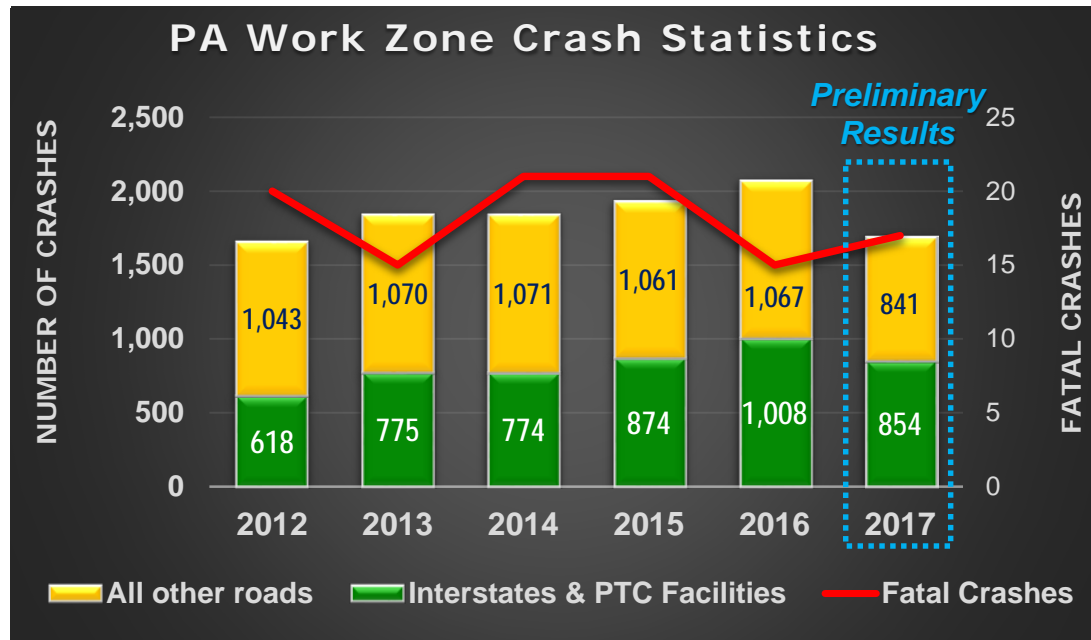


## Introduction

- Why Work Zone Training?
- Authority
- Purpose
- Proposed Training Program
  - 3 Categories of Training
  - Training Requirements and Content
  - External Training Courses & Instructor Qualifications
  - Consequences for Non-compliance
  - Program Management

# Why Work Zone Training?

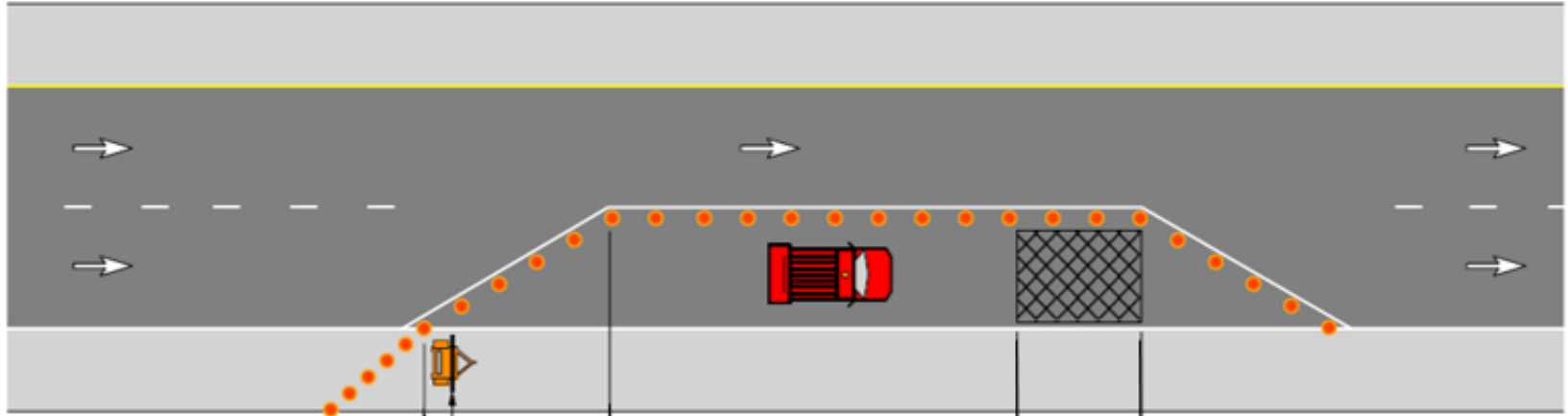
- Reduce work zone crashes and fatalities
  - Workers
  - Motorists



# Why Work Zone Training?

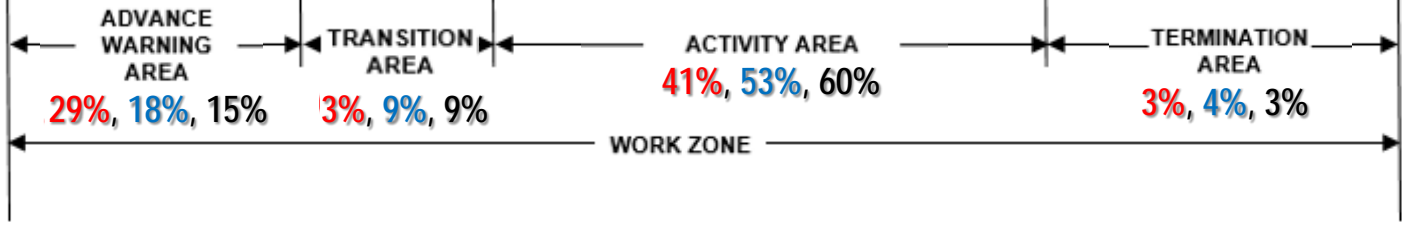
## CRASH SEVERITY WITHIN THE WORK ZONE 2016 - 2017

OTHER AREA  
**18%**, **13%**, **11%**



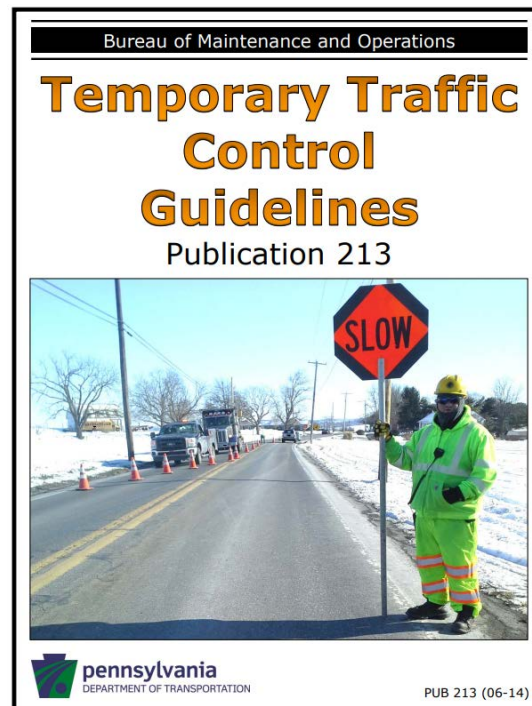
**LEGEND**  
**XX% Fatal**  
**XX% Injury**  
**XX% PDO**

BEFORE FIRST SIGN  
**6%**, **3%**, **2%**



## Why Work Zone Training?

- Improve work zone consistency amongst all organizations within State & Turnpike right-of-way
- Improve work zone compliance with Publication 213 and MUTCD





## Program Goals and Objectives

- Goal: Provide the appropriate degree of training for all work zone personnel involved with traffic control activities to properly and effectively conduct their job responsibilities.
- Objectives:
  - Train all individuals who oversee traffic control, flagging, planning, design, installation, inspection, operation, management, maintenance, and removal of work zones.
  - Reduce the number of fatal work zone crashes to zero.
  - Reduce the number of overall work zone crashes each year.
  - Reduce the number of unsatisfactory work zone QA/QC evaluations to zero.
  - Improve work zone consistency amongst all organizations



## Authority

- Federal Regulations, 23 CFR Part 630J requires states to train all personnel involved with work zone activities to improve decision making for each individual's job responsibilities.





## Purpose

- Provide training for **all** work zone personnel who are involved in the following traffic control activities:
  - Planning/Design of work zone traffic control
  - Installation/Removal of work zone traffic control devices
  - Maintenance/Inspection of work zone traffic control
  - Operations/Management of work zone traffic control

## Purpose

- Impacted public agencies and organizations include:
  - PennDOT
  - PA Turnpike
  - FHWA
  - PA Municipal Organizations
  - PA Public Utility Commission (PUC)
  - PA State Police (PSP)

- Impacted private agencies and organizations include:
  - Association of PA Constructors (APC)
  - American Council of Engineering Companies (ACEC)
  - Pennsylvania Asphalt Pavement Association (PAPA)
  - American Traffic Safety Services Association (ATSSA)
  - Highway Occupancy Permittees
  - Any organization that conducts business within PennDOT or PA Turnpike right-of-way



## Proposed Training Program

- Provide 3 categories of work zone training
  - Field Personnel Work Zone Safety Training
  - Deployment & Oversight Work Zone Safety Training
  - Design & Review Work Zone Safety Training
- Training required is dependent upon work zone job duties
  - No pre-requisites for any category of training



## Proposed Training Program

- All individuals involved with work zone traffic control must maintain the appropriate work zone training certification in order to perform work within State or PA Turnpike right-of-way
- Law Enforcement and Emergency/1<sup>st</sup> responders are encouraged to receive work zone training but not required



## Proposed Training Program

- Training techniques to be offered:
  - Web-based training (*free to trainees*)
    - Field Personnel Work Zone Safety Training
  - Instructor facilitated mixed methods training (*cost to trainees*)
    - Field Personnel Work Zone Safety Training
    - Deployment & Oversight Work Zone Safety Training
    - Design & Review Work Zone Safety Training

**IMPORTANT: All training courses utilize pre-recorded slides to ensure content consistency**





## Proposed Training Program

- Field Personnel Training Requirements
  - Who is required:
    - All personnel controlling traffic in a work zone and personnel responsible for installing, maintaining, and removing temporary traffic control devices
    - Examples: Laborers involved with setting up and tearing down temporary traffic control devices and Flaggers
  - Course objectives include:
    - Understanding of required safety attire
    - Understanding of work zone components
    - Understanding of high level work zone concepts and overall safety awareness
    - Understanding of proper way to install/remove traffic control devices

# Proposed Training Program

Module Content: Field Personnel Training		Time (mins)
Day 1 (2.5 hours)		
1	Introduction	10
2	Required Safety Attire	5
3	Traffic Control Devices	15
4	Work Zone Components	10
5	Worker Safety Awareness	20
6	Building Work Zone Skills	30
Course Exam		60

# Proposed Training Program

- Field Personnel Training Course Requirements

Work Zone Safety Training	Instruction				Testing			
	Training Technique	Instructor Required	Minimum Hours		Testing Technique	Number of Questions	Time Allowed (mins)	Passing Score (%)
			Classroom	Practical				
Field Personnel Training	Web-based individual	N	1.5	N/A	Electronic	20	60	80 or above
	Mixed Methods	Y	1.5	N/A	Electronic or Written	20	60	80 or above

**IMPORTANT:** Personnel must complete training every 3 years in order to maintain field personnel work zone training certification





## Proposed Training Program

- Field Personnel Training Implementation
  - Online and assembly trainings available early Fall 2018
  - Supplements current flagger training
  - Flagger training to be updated to incorporate field personnel content
  - All new PennDOT employees involved with temporary traffic control must complete
  - PennDOT maintenance divisions to conduct assembly trainings in Fall 2018/Winter 2019
- **Field Personnel Training must be completed by March 1<sup>st</sup>, 2020**

## Proposed Training Program

- Deployment & Oversight Training Requirements
  - Who is required:
    - All supervisory, decision-making, inspection, work zone QA/QC personnel, and individuals in charge of determining and laying out work zone traffic control set-ups in the field
    - Examples: Project managers, Foreman, Superintendents, Engineer-in-charge, Inspectors, Work zone QA/QC personnel
  - Course objectives include:
    - Understanding of human factors that contribute to crashes
    - Understanding of relevant manuals, guidebooks, and publications
    - Appropriate understanding and selection of Pub 213 PATAs
    - Understanding project specific traffic control plans
    - Modifying PATAs and traffic control plans for field conditions
    - Installing/removing traffic control devices
    - Understanding of inspection and documentation requirements

## Proposed Training Program

Module Content: Deployment & Oversight Training		Time (mins)
<b>Day 1 (6 hours)</b>		
1	Introduction	30
2	Liability and Risk	30
3	Human Factors	30
4A*	PennDOT: Manuals and References	30
4B*	Turnpike: Manuals and References	30
5	Traffic Control Devices	60
6	Work Zones	60
7	Worker Safety and Flagging Operations	90
<b>Day 2 (6 hours)</b>		
8A*	PennDOT: Building Work Zone Skills ( <i>Tabletop/Field Demo</i> )	75
8B*	Turnpike: Building Work Zone Skills ( <i>Tabletop/Field Demo</i> )	45
9	Adjusting TTC ( <i>Tabletop/Field Demo</i> )	60
10	Types of TTC Activities	30
11	Work Zone Inspection	30
12	Review of TTC Typical Applications	60
Course Exam		60

**\*Agency specific modules may be removed based on course attendee applicability**





# Proposed Training Program

- Deployment & Oversight Training Course Requirements

Work Zone Safety Training	Instruction				Testing			
	Training Technique	Instructor Required	Minimum Hours		Testing Technique	Number of Questions	Time Allowed (mins)	Passing Score (%)
			Virtual/ Classroom	Practical				
Deployment & Oversight Training	Mixed Methods	Y	8	3	Electronic or Written	40	60	80 or above

\*Training to occur over consecutive days

**IMPORTANT:** Personnel must complete training every 3 years in order to maintain deployment & oversight work zone training certification



## Proposed Training Program

- A Deployment & Oversight Certified Individual **must be on-site** during installation, removal, or modifications of traffic control devices
- Program intends to provide at least one individual with Deployment & Oversight Training in a work zone at all times
- Where foreman/supervisors are responsible for multiple work zones, Deployment & Oversight Training is encouraged for field personnel

## Proposed Training Program

- Deployment & Oversight Training Implementation
  - Assembly trainings available early 2019
  - Training to be incorporated into PennDOT's Foreman Academy Training
- **Deployment & Oversight Training must be completed by March 1<sup>st</sup>, 2020**

## Proposed Training Program

- Design & Review Training Requirements
  - Who is required:
    - All personnel with responsibility for design (includes PATA modifications) and/or review of work zone traffic control
    - Examples: Design engineers (i.e. Consultants, Contractors, Utilities, & Permittees) and District/PTC Work Zone Review Staff
  - Course objectives include:
    - Understanding of relevant design manuals, guidebooks, and publications
    - Review of work zone components and devices
    - Work zone mobility analysis and Transportation Management Plans
    - Design considerations and detours
    - Preferred Traffic Control Plan presentation and specifications
    - Understanding of night-time, urban, and pedestrian/bicycle considerations

## Proposed Training Program

Module Content: Design & Review Training		Time (mins)
<b>Day 1 (6 hours)</b>		
1	Introduction	30
2A*	PennDOT: Manuals and References	30
2B*	Turnpike: Manuals and References	30
3	Fundamental Principles of Work Zones	30
4	Human Factors	30
5	Component Parts of TTC	30
6	TTC Devices	60
7	Types of TTC Activities	30
8A*	PennDOT: Transportation Management Plan ( <i>Group Exercises</i> )	30
8B*	Turnpike: Transportation Management Plan ( <i>Group Exercises</i> )	30
9	Design Considerations	30
<b>Day 2 (6 hours)</b>		
10A*	PennDOT: TTC Plans and Specifications ( <i>Group Exercises</i> )	75
10B*	Turnpike: TTC Plans and Specifications ( <i>Group Exercises</i> )	45
11	Nighttime Work Zones	45
12	Urban and Other Considerations	45
13	Course Review: TTC Designs, Plans, and Specifications	90
Course Exam		60

**\*Agency specific modules may be removed based on course attendee applicability**



# Proposed Training Program

- Design & Review Training Course Requirements

Work Zone Safety Training	Instruction				Testing			
	Training Technique	Instructor Required	Minimum Hours		Testing Technique	Number of Questions	Time Allowed (mins)	Passing Score (%)
			Virtual/Classroom	Practical				
Designer & Reviewer Training	Mixed Methods	Y	8	3	Electronic or Written	40	60	80 or above

\*Training to occur over consecutive days

**IMPORTANT:** Personnel must complete training every 3 years in order to maintain design & review work zone training certification





## Proposed Training Program

- Design & Review Training Implementation
  - Use Planning for Operations course as a baseline for new training course
  - Assembly trainings available early 2019
- **Design & Review Training must be completed by March 1<sup>st</sup>, 2020**

## Proposed Training Program

- External work zone training courses may be accepted if PennDOT training course content is included at a minimum
  - PennDOT's Work Zone Unit or Program Administrator will approve all trainings
- PennDOT and PTC to meet periodically with impacted agencies/organizations to assess work zone training program and course content
  - Potential to use Work Zone Safety Technical Advisory Group
- PennDOT has the authority to update training course requirements at any time in concurrence with PTC

## Proposed Training Program

- Trainees that receive a failing score (79% or less) can take a makeup test within 48 hours
- Trainee certifications to be documented/tracked within a Work Zone Training Program Database by Program Administrator
- Certificates will be presented to successful trainees by instructor
- Successful trainees will **NOT** be required to carry a work zone training card/certificate

## Proposed Training Program

- Trainings to be delivered by certified instructors
- Instructors must meet the following requirements:

Work Zone Safety Training	PennDOT Certification Requirements					Documentable Years' of Experience
	Flagger Training	Train the Trainer	Field Personnel Training	Deployment & Oversight Training	Design & Review Training	
Field Personnel Training	Y	Y	Y	Y	N	At least 2 years of in-field work zone experience
Deployment & Oversight Training	Y	Y	Y	Y	Y	At least 2 years of in-field supervisory or inspection experience
Design & Review Training	Y	Y	Y	Y	Y	At least 4 years of WZTC design or review experience

**IMPORTANT:** Training instructors need to be re-certified every 2 years

## Proposed Training Program

- Non-compliance with Work Zone Training Program Policy requirements will result in individual and/or organizational consequences/penalties
- Consequences and penalties to be enforced per existing regulations and policies for:
  - PennDOT Maintenance/Work Zone Staff
  - PA Turnpike Maintenance/Work Zone Staff
  - Non-PennDOT/PA Turnpike Organizations

## Proposed Training Program

- PennDOT and PA Turnpike Consequences:
  - Individuals who fail to meet work zone safety, performance, or training policy requirements will be subject the following:
    - PennDOT: Individuals may be subject to discipline and/or termination as determined by Human Resources
      - Policy and Process for a Needs Improvement and/or Unsatisfactory Quality Assurance and Work Zone Traffic Control Reviews dated June 3, 2014
    - PA Turnpike: Individuals may be subject to an investigation and disciplinary actions as determined by Human Resources
- Incident will be documented in the WZ Training Program Database as well



## Proposed Training Program

- Non-PennDOT/PA Turnpike individuals and organizations will be subject to consequences as noted in Publication 408
  - *Section 105 Control of Work*
  - *Section 108.05(b) Competence of Worker*

**IMPORTANT:** If first violation is egregious enough to endanger the safety of oneself, workers, or motorists, immediate suspension of individuals or stoppage of work may be necessary



## Proposed Training Program

- Engineer-in-charge, inspector, or designated representatives from PennDOT /PTC will enforce Work Zone Training Policy
- Designated PennDOT/PTC representative will be responsible for documenting the incident in the their file and in the Work Zone Training Program Database.





## Proposed Training Program

- Organizations/agencies that repeatedly violate the work zone training policy may be removed from the roadway, have work suspended, or have their pre-qualification status docked/suspended in accordance with:
  - Title 67 Sections 441.10 & 459.11
  - Title 67 Sections 457.10 & 457.13
  - Publication 93 Section 5.5 and 5.8
  - Commission Specifications 105.01b & 108.09



## Proposed Training Program

- Program administrator will be contracted to handle day-to-day management of training program including:
  - Developing/Administering trainings
  - Approving external work zone training courses
  - Approving instructor applications
  - Evaluating instructors and work zone training courses
  - Recording/tracking all trainee/instructor certifications
  - Alerting individuals when certifications are to expire
    - 12, 9, 6, and 3 month alerts prior to expiration
  - Assisting PennDOT in evaluating/updating training content
  - Delivering annual report on state of the Work Zone Training Program





# Proposed Training Program

- Next steps

TASK	2018											2019	2020		
	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan - Dec	Jan	Feb	Mar	
CT Process	■	■	■	■	■										
Develop RFP for WZ Training		■	■												
Select Consultant/Program Admin				■	■	■									
Develop Training Course Content						■	■	■	■						
Develop WZ Training Database						■	■	■	■						
Select Instructors								■	■	■					
Implement/Administer Trainings									■	■	■	■	■	■	
Enforce Training Policy														■	

- PennDOT Responsibilities
- Consultant Responsibilities

# Questions?

