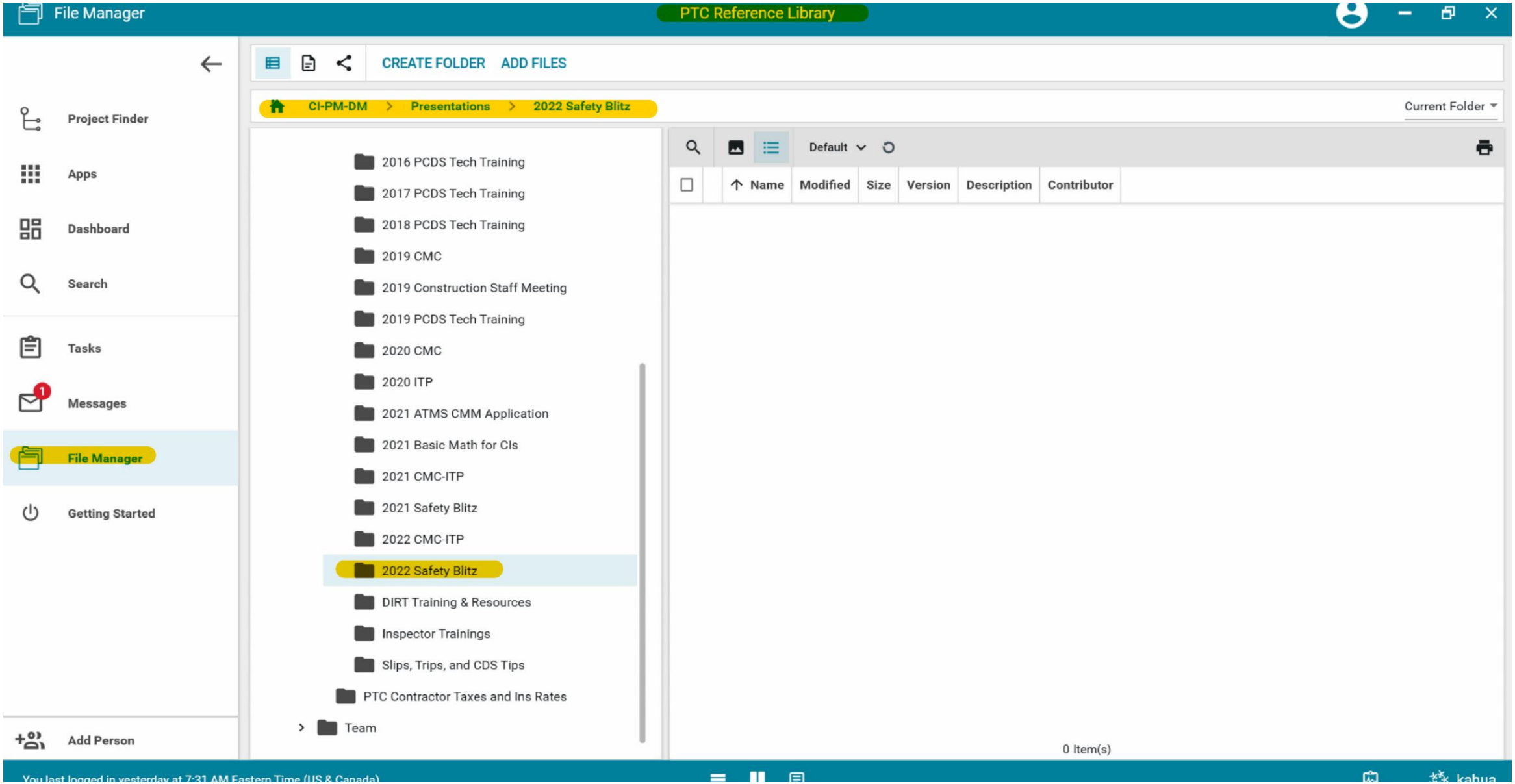

SAFETY
BLITZ
April 12, 2022 - WebEx

Ground Rules

Everyone is muted upon entry.

Enter any questions using chat function. Questions will be reviewed following completion of the presentation.

Presentation is being recorded.


File Manager
PTC Reference Library
CREATE FOLDER
ADD FILES
Project Finder
Apps
Dashboard
Search
Tasks
Messages
File Manager
Getting Started
Add Person
CI-PM-DM
Presentations
2022 Safety Blitz
Current Folder
2016 PCDS Tech Training
2017 PCDS Tech Training
2018 PCDS Tech Training
2019 CMC
2019 Construction Staff Meeting
2019 PCDS Tech Training
2020 CMC
2020 ITP
2021 ATMS CMM Application
2021 Basic Math for CIs
2021 CMC-ITP
2021 Safety Blitz
2022 CMC-ITP
2022 Safety Blitz
DIRT Training & Resources
Inspector Trainings
Slips, Trips, and CDS Tips
PTC Contractor Taxes and Ins Rates
Team
Default
Name
Modified
Size
Version
Description
Contributor
0 Item(s)
You last logged in yesterday at 7:31 AM Eastern Time (US & Canada)
kahua

Ground Rules

Link to the recording will be emailed to WebEx invitees.

Upon completion email your name and company to branck@paturnpike.com to be added to the list of live Webex attendees/recording viewers.

Agenda

- Safety is everyone's responsibility
- COVID-19
- PTC Work Zone Crash/TMA Hit Statistics
- AWZSE
- COM Part B, Sections 8-1 & 8-2
- CS Requirements/PPE
- Help to Prevent Injuries
  - Head
  - Eye
  - Hearing
  - Hand
  - Foot
- Upcoming Safety Events

STRATEGIC PLAN FRAMEWORK

PENNA TURN PIKE

SAFETY FOCUSED.
CUSTOMER DRIVEN.
AMERICA'S FIRST SUPERHIGHWAY

OUR VISION

Driving the standard for safety, customer service, and mobility.

OUR COMMITMENT

- Improve safety–zero fatalities, no work-zone injuries, reduced incidents
- Manage all assets in a restorative manner
- Achieve accessible, reliable, and uninterrupted travel
- Be the leader in transportation services

OUR VALUES

SAFETY ALWAYS	COMMUNICATE OPENLY	CUSTOMER DRIVEN	RESPONSIBILITY MATTERS	TEAMWORK DELIVERS
We care deeply about the safety of our colleagues and customers.	We listen and collaborate to connect people with one another.	We provide our customers with premium service.	We embody diversity, integrity, and sustainability in all of our practices.	We are accountable to one another and succeed when we work together.

MISSION

To operate a safe, reliable, customer-valued toll road system that supports national mobility and commerce.


SAFETY
IS
EVERYONE'S
RESPONSIBILITY

Safety

- Everyone should be concerned with safety and should work as safely as possible.
- Keep safety at the top of your mental checklist, no matter what task you are performing.
- Stay alert on the job site.

Safety

- Learn to work safely and take all rules seriously.
- Be aware of potential hazards on the job.
- Inspect equipment and tools before use to ensure that they are in good condition. Use the protections that are provided.
- Wear all assigned personal protective equipment.
- Know what to do in case of an emergency.
- Report all accidents, injuries, and illnesses to your supervisor immediately.

Notice Ending COVID-19 Mitigation – 6/29/21

- The following items no longer required:
  - Supplemental COVID-19 Safety Plan Implementation
  - Guidelines for Occupying Facilities
  - Implementation of Fabrication, Materials, Testing, and Labor Compliance Guidance
  - COVID-19 Safety Plan Sign
- Not required to submit a revised safety plan to remove Supplemental COVID-19 Safety Plan.
- May continue to use any or all current mitigation efforts.
- Commission and consultant inspection staff - follow employer's safety plans and protocols.

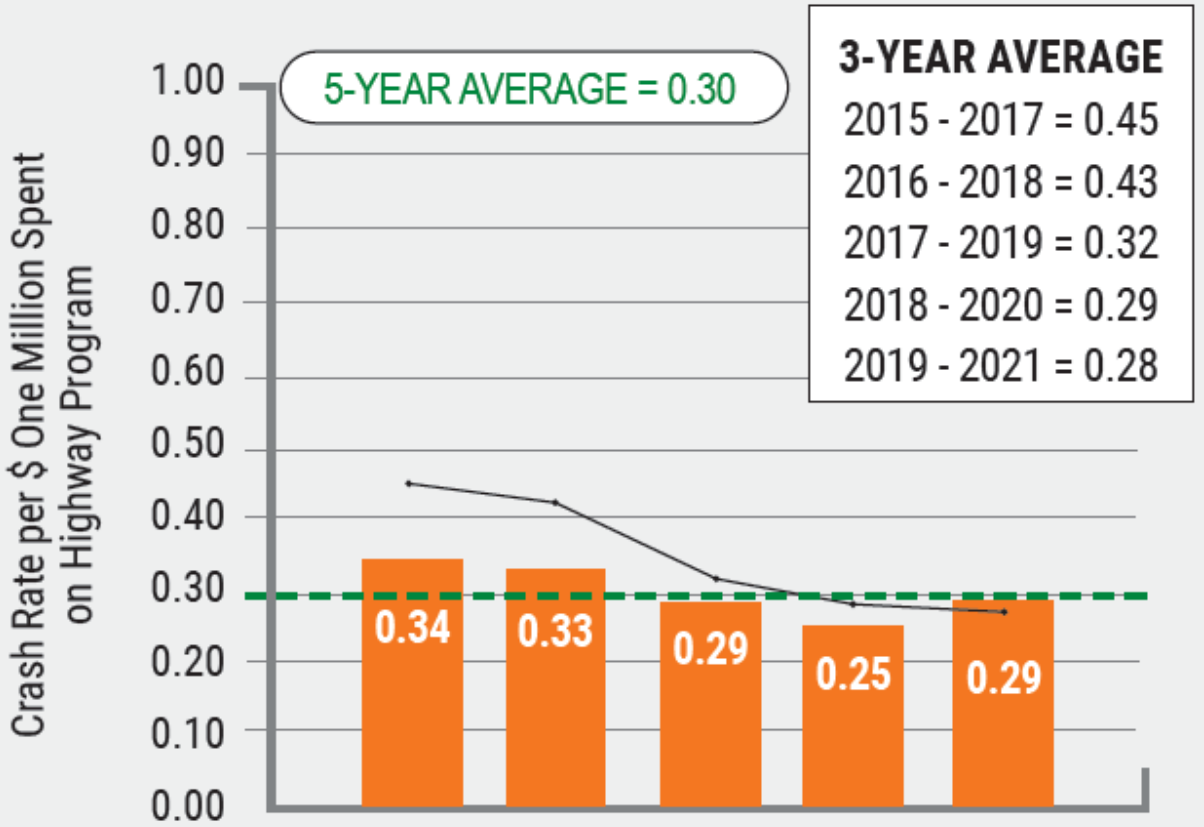
PTC COVID-19 Guidance – 3/4/22

- Go to: Intranet, HR, COVID-19 Employee Information.
- The PTC is updating COVID-19 safety measures to align with the CDC's indicators for assessing COVID-19 community risk.
- The current PTC organization-wide level is **MEDIUM**.
  - If you are at high risk for severe illness, talk to your healthcare provider about whether you need to wear a mask and take other precautions.
  - Stay up to date with COVID-19 vaccines.
  - Get tested if you have symptoms.

PTC COVID-19 Guidance – 3/4/22

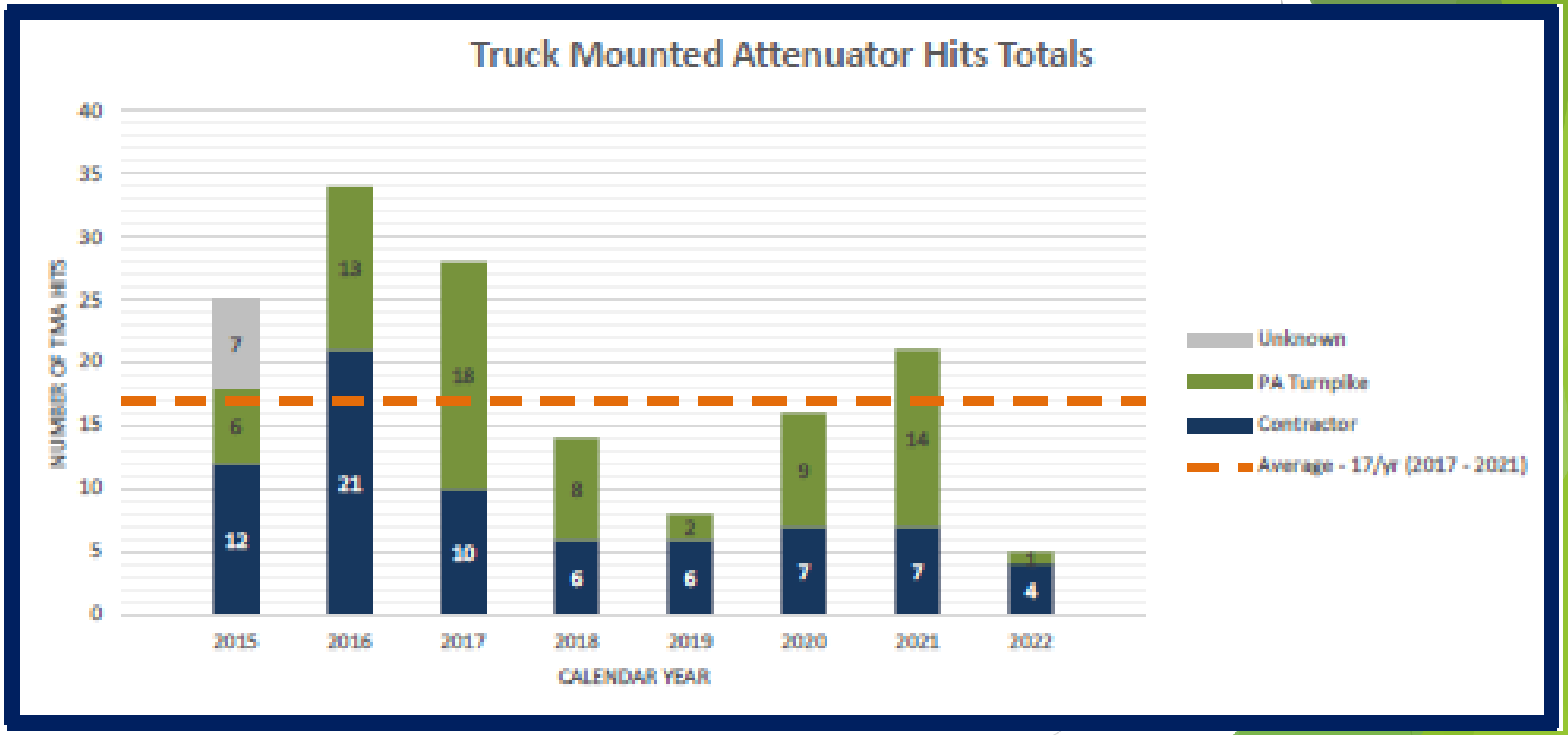
- Current PTC COVID-19 safety measures:
  - Stay home when sick. Notify your supervisor of symptoms before coming to work.
  - Wear a mask around others.
    - For 10 days after close contact/COVID exposure.
    - For 5 days after being sick with COVID.
  - People may choose to mask at any time.
  - Practice physical distancing of 6 feet at in-person meetings and group gatherings.
  - Continue good housekeeping and hygiene.

Calendar Year	$ Spent (Million)	# of Crashes	# of Fatalities
2017	$539.5	186	1
2018	$488.4	160	0
2019	$507.8	148	0
2020	$445.2	113	1
2021	$411.8	120	2
5-Yr Avg	**$479.3**	**146**	**1**

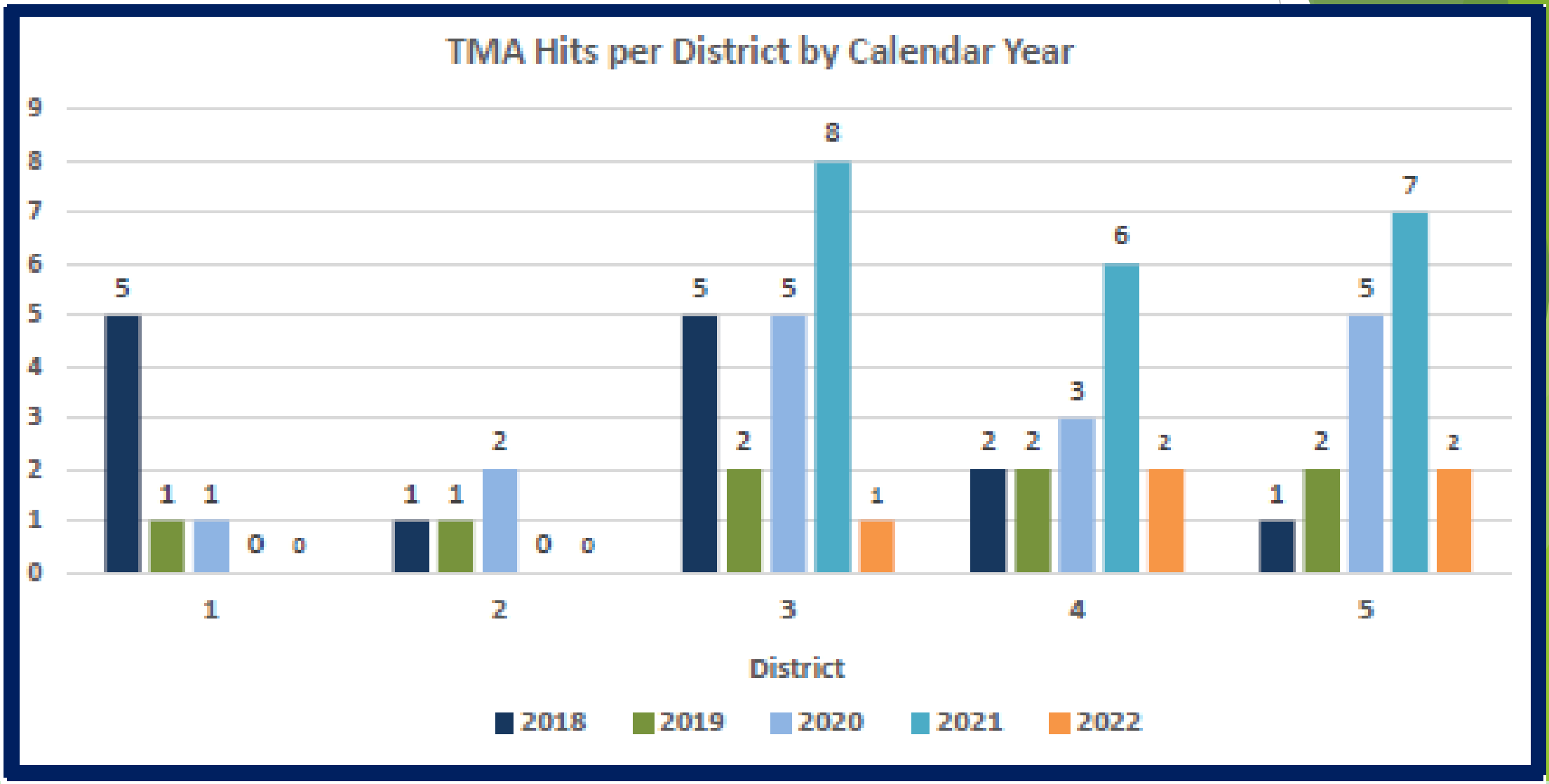


PTC Work Zone Crash Statistics

PTC Work Zone Truck Mounted Attenuator Hits



PTC Work Zone Truck Mounted Attenuator Hits



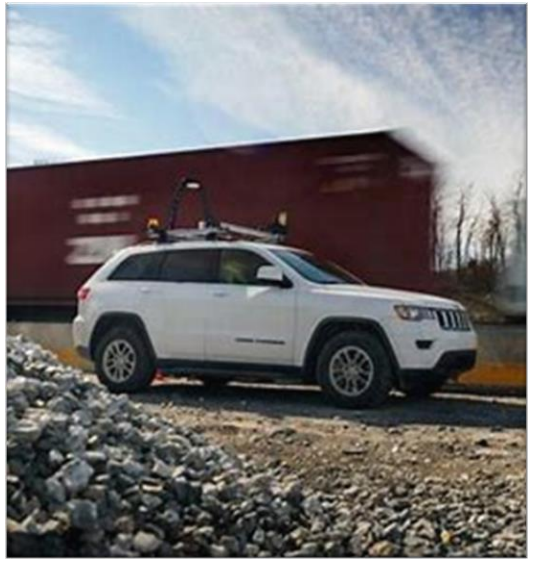
Automated Work Zone Speed Enforcement (AWZSE)

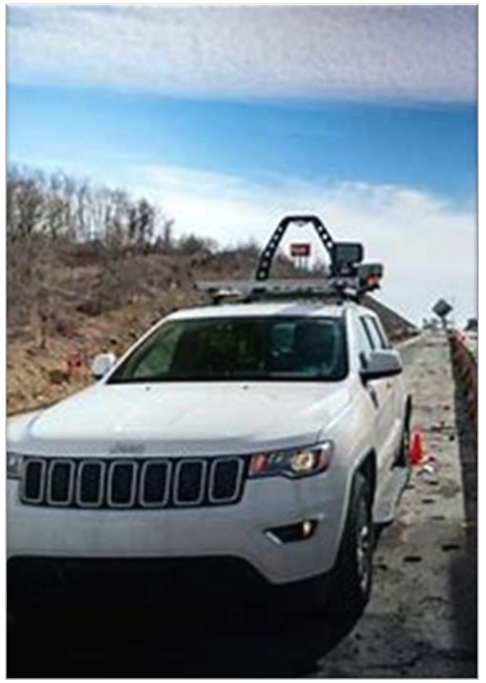
- Combined effort between PTC and PennDOT.
- Deployments began in 2020.
- Goals:
  - Reduce speeds in work zones.
  - Improve driver behavior.
  - Save worker and traveler lives.
  - Compliment existing enforcement by PSP.
  - Promote work zone safety.

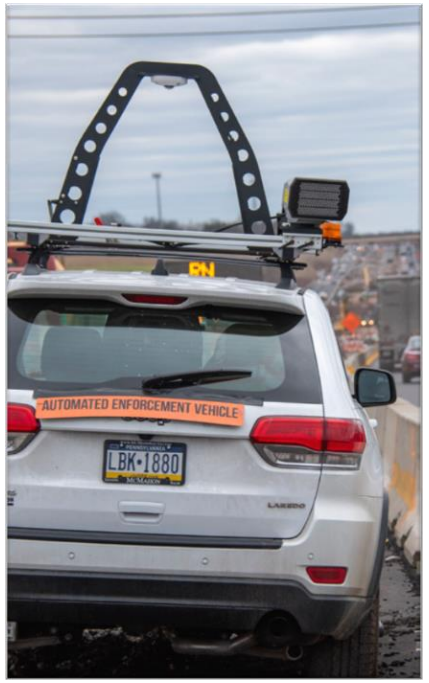
Operational Approach

- 17 units statewide – 7 PTC and 10 PennDOT
- 8-hour deployment shift
- Up to 2 shifts daily.
- Can support both weekday and weekend activities.
- Workers must be present.


ACTIVE
SPEED LIMIT
PHOTO ENFORCED





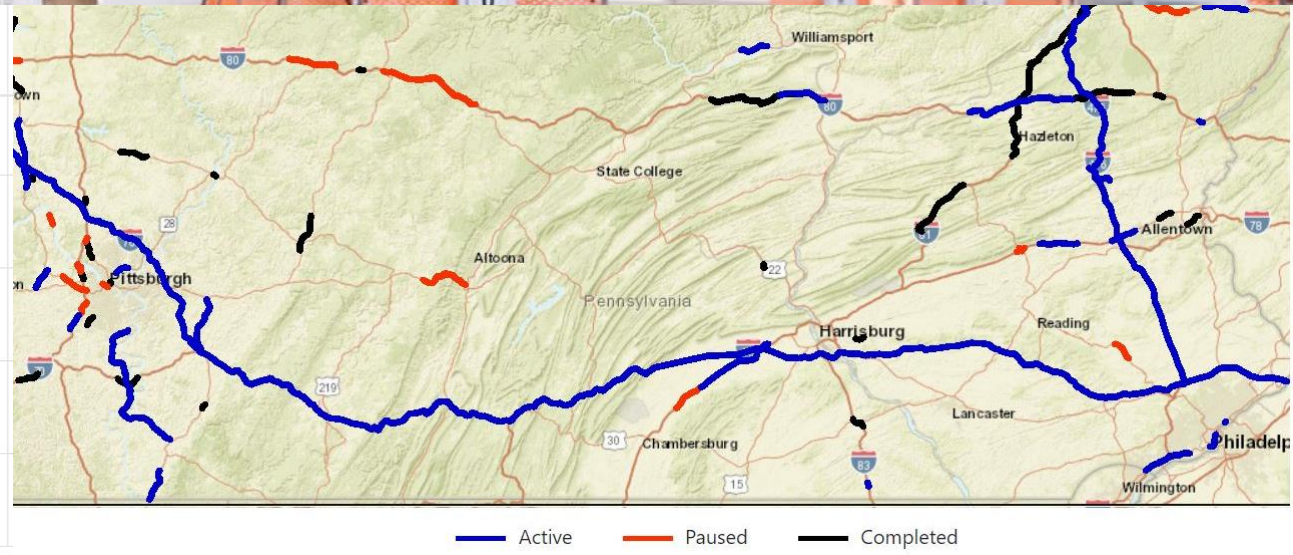

AUTOMATED ENFORCEMENT VEHICLE
LBK-1880

Units

Website

https://workzonecameras.penndot.gov/

Status	Owner	Region	County	Route	Description
ACTIVE	PTC	CENTRAL	DAUPHIN		
ACTIVE	PTC	CENTRAL	DAUPHIN	0076	I-76 Eastbound, PTC New Cumberland Maintenance Activity, Dauphin County
ACTIVE	PTC	CENTRAL	DAUPHIN	0076	I-76 Westbound, PTC New Cumberland Maintenance Activity, Dauphin County
ACTIVE	PTC	CENTRAL	DAUPHIN	0076	I-76 Eastbound, PTC Mount Gretna Maintenance Activity, Dauphin County
ACTIVE	PTC	CENTRAL	DAUPHIN	0076	I-76 Westbound, PTC Mount Gretna Maintenance Activity, Dauphin County

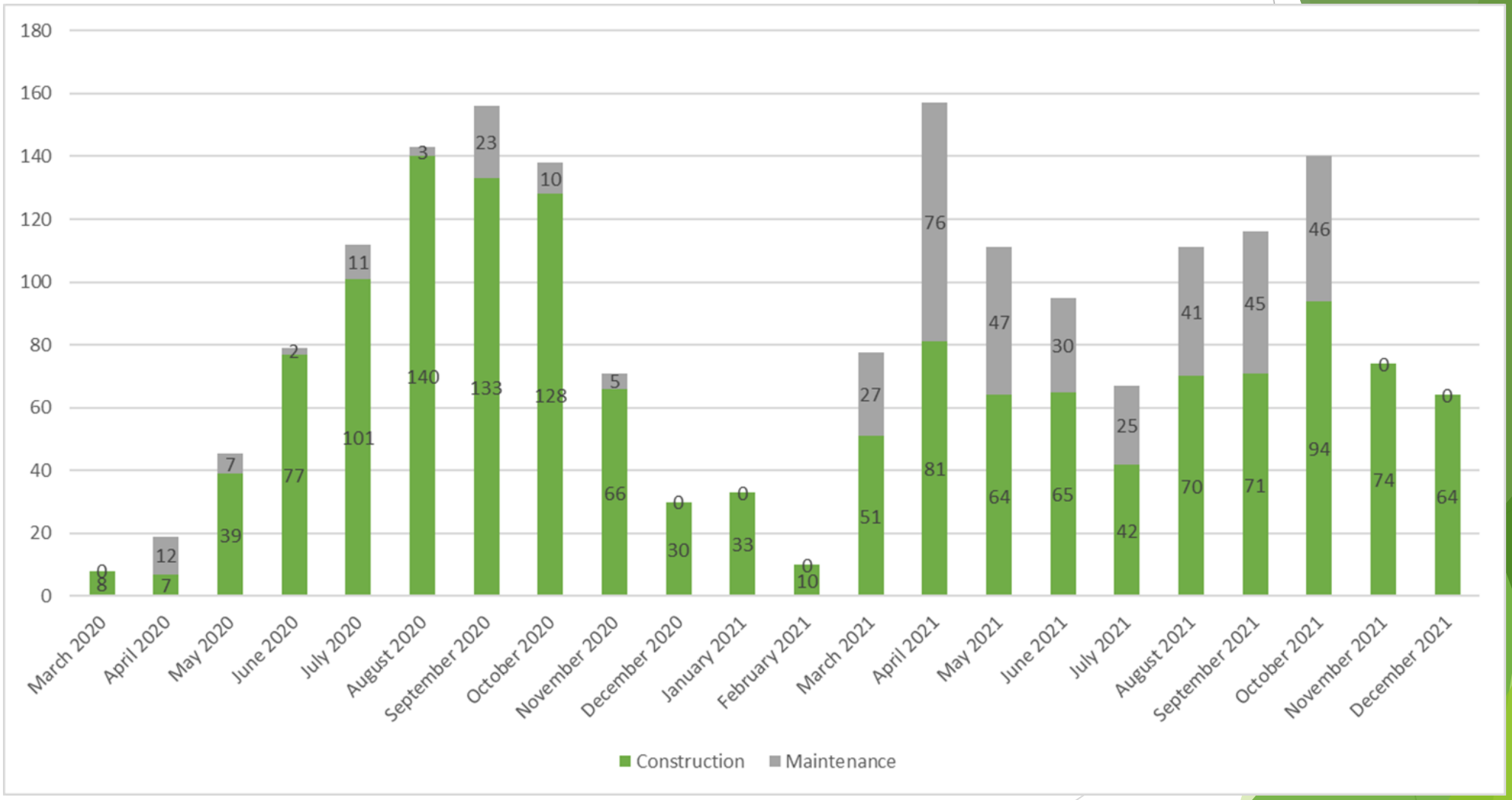


PTC AWZSE Statistics **

- Violations
  - > 1,800 deployments
  - > 300,000 violations issued
  - 12.8% repeat violator rate
- Speeds
  - Higher in barrier than channelizer protected projects
  - Speeds were high at start (March-April 2020) and through the winter (December 2020-March 2021) due to activities supported (more barrier, less channelizer projects).

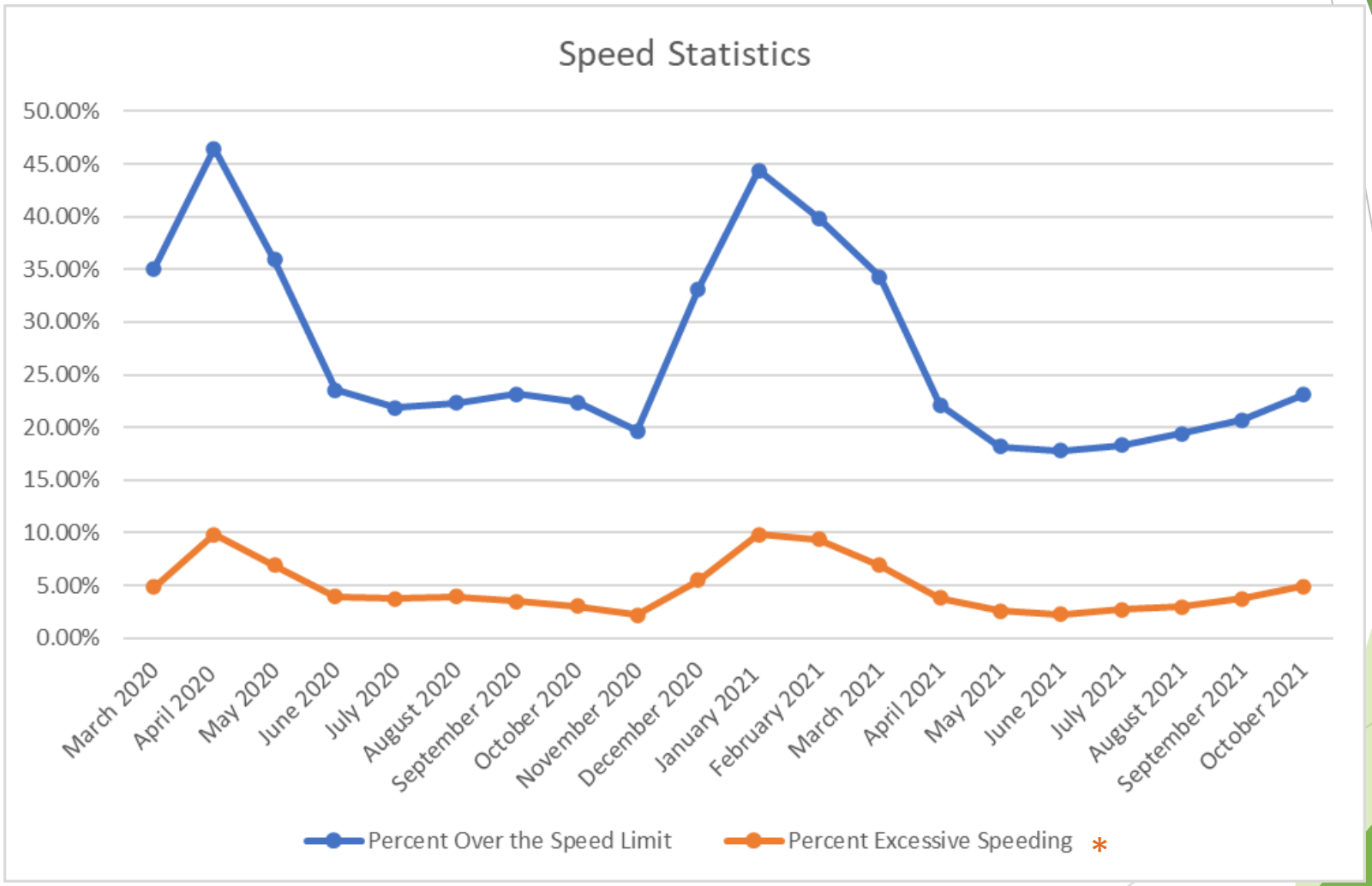
** Data current as of December 31, 2021

Deployments **



** Data current as of December 31, 2021

Speeding **



** Data current as of October 31, 2021

* 11 MPH or more over the posted speed limit

Statistics By Worker Protection Type **

- 30% of deployments - barrier
- 60% of potential violations - barrier
- Barrier protected areas have twice the % over speed limit and excessively speeding *

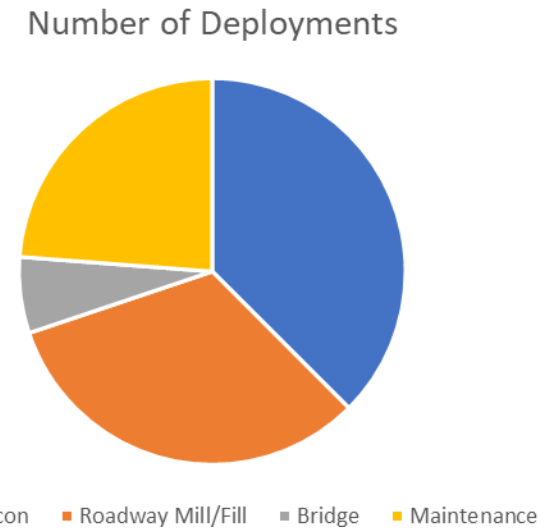
BARRIER				CHANNELIZER			
# OF DEPLOYMENTS	# OF POTENTIAL VIOLATIONS	% OVER SPEED LIMIT	% EXCESSIVE SPEEDING*	# OF DEPLOYMENTS	# OF POTENTIAL VIOLATIONS	% OVER SPEED LIMIT	% EXCESSIVE SPEEDING*
593	236,078	44.3%	8.0%	1,248	163,310	24.2%	4.2%

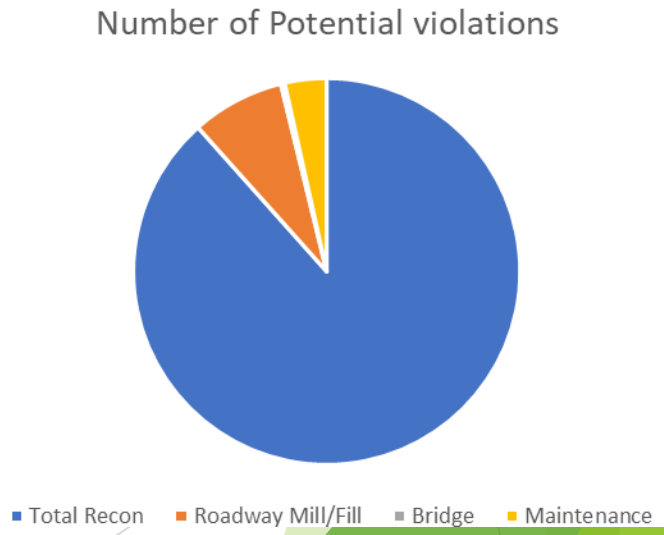
** Data current as of December 31, 2021

* 11 MPH or more over the posted speed limit

Deployments vs. Potential Violations **

	NUMBER OF DEPLOYMENTS	NUMBER OF POTENTIAL VIOLATIONS
TOTAL RECON	644 (38%)	288,248 (88%)
MILL/FILL	556 (32 %)	25,364 (8%)
BRIDGE WORK	109 (6 %)	1,083 (0.5%)
MAINTENANCE	409 (24%)	11,393 (3.5%)





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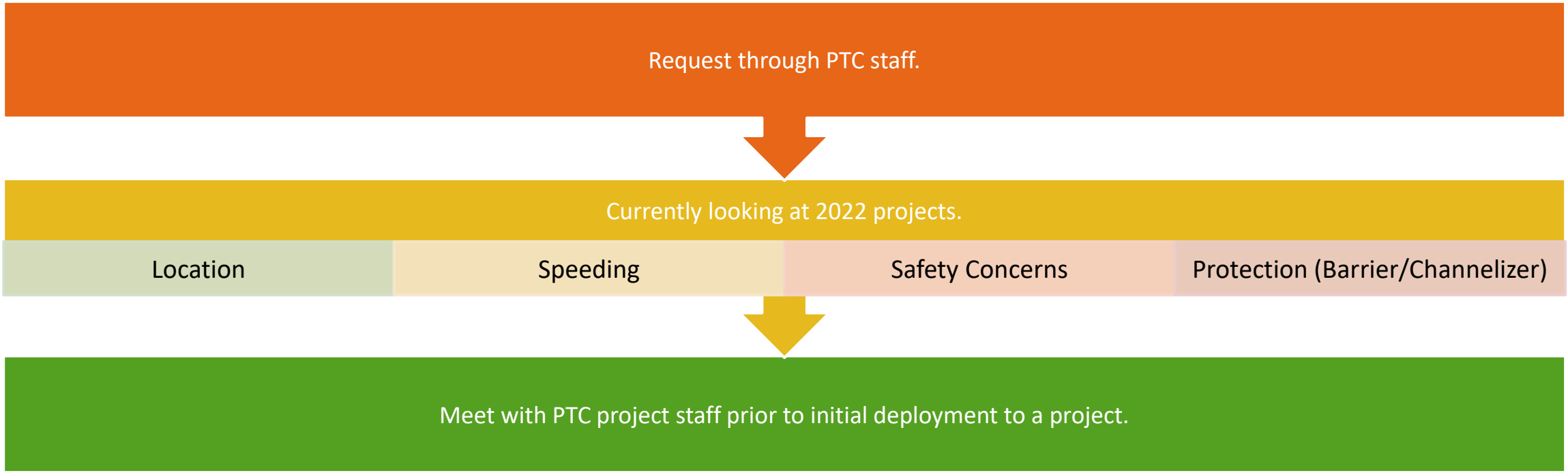


Project Selection

Coordination Special Provision

FXX.00 COORDINATION WITH AUTOMATED SPEED ENFORCEMENT VENDOR 04/10/20

In accordance with Section 105.07 and as follows:

The Commission has implemented Automated Speed Enforcement in Work Zones (AWZSE) through a separate contract. The AWZSE consists of manned vehicles that will be located within the work zone at locations specified by the Commission and in accordance with ***(PTS 011, 012, 013, 014)*** to provide Automated Speed Enforcement within active work zones. The AWZSE units may be deployed at any time during active construction, providing the location is suitable for unit placement and does not impede active construction activities.

The AWZSE vendor is responsible for the deployment and operation of the AWZSE unit as well as furnishing, deploying, and removing the advance warning signs required for enforcement in accordance with ***(PTS 011, 012, 013, 014)***. The AWZSE vendor will be responsible for providing automobile and general liability insurance. The Contractor is required to coordinate with and provide access within the work zone to the AWZSE vendor to deploy and operate the AWZSE unit and advance warning signs. The Contractor shall not remove, relocate, or otherwise disturb the AWZSE advance warning signs while deployed nor disturb, obstruct, or otherwise interfere with the AWZSE unit during deployment and operation.


THIS IS OUR OFFICE,
DRIVE LIKE IT'S YOURS.
PENNA
TURN
PIKE

Construction Operations Manual (COM)

- COM is a compilation of policies, procedures, guidelines, and checklists relating to field administration and inspection of construction contracts.
- Part B, Section 8-1, Contractor Safety Program Compliance
- Part B, Section 8-2, Contractor Safety Programs

Contractor Safety Program Compliance

- **<u>IN THE EVENT OF AN EMERGENCY – *CALL 911 FIRST*</u>.**
- Notify the PTC Traffic Operations Center (*11 via cell phone or 717-939-9551 X 4644) if a serious incident occurs within the construction work zone.

Contractor Safety Program Compliance

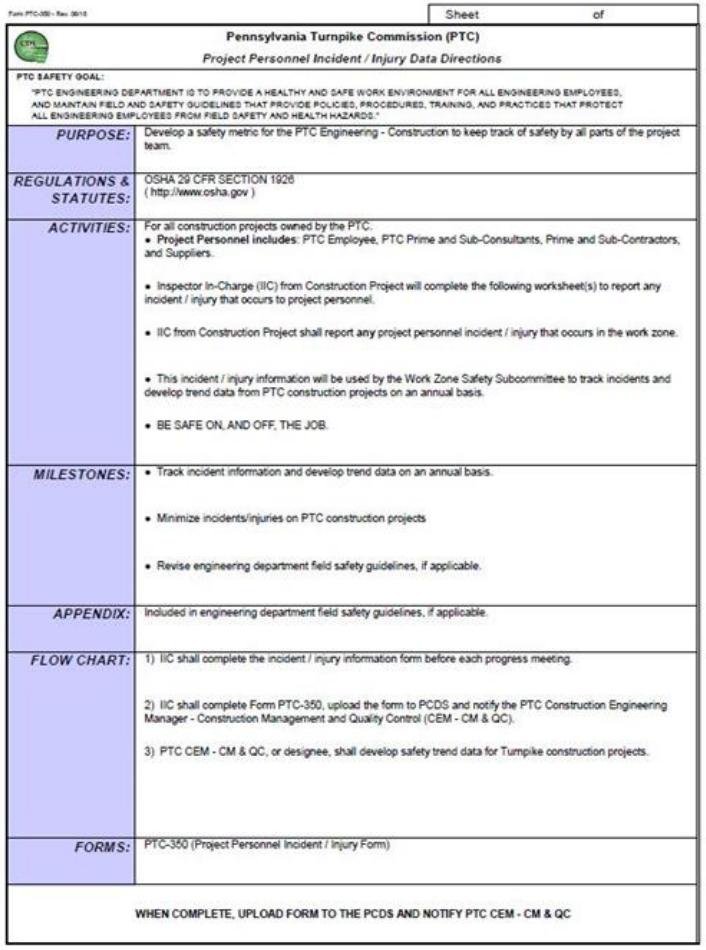
- Pre-Construction Conference – Discuss the contractor's proposed safety program.
- Inspection staff will routinely monitor safety.
- The contractor is responsible for project safety.
- If a major safety issue (life threatening) is witnessed, have the problem resolved immediately or stop work on that operation.

Contractor Safety Program Compliance

- If you witness a nonlife-threatening safety concern, notify the foreman and the IIC.
- If the problem is not corrected by the next day, notify the PTC Project Manager.
- If the problem still exists the next day, call the company's home office and inform the PTC CEM.
- If the situation is not corrected one day after notifying the home office, call and report to OSHA.
- Document all notifications.

Contractor Safety Program Compliance

- Use form PTC-350 to report any project related incident and/or injury that occurs to project personnel in the construction work zone. Complete form, upload the form to the PCDS, notify the PTC PM, and send form to Brian Ranck.



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Pennsylvania Turnpike Commission (PTC)

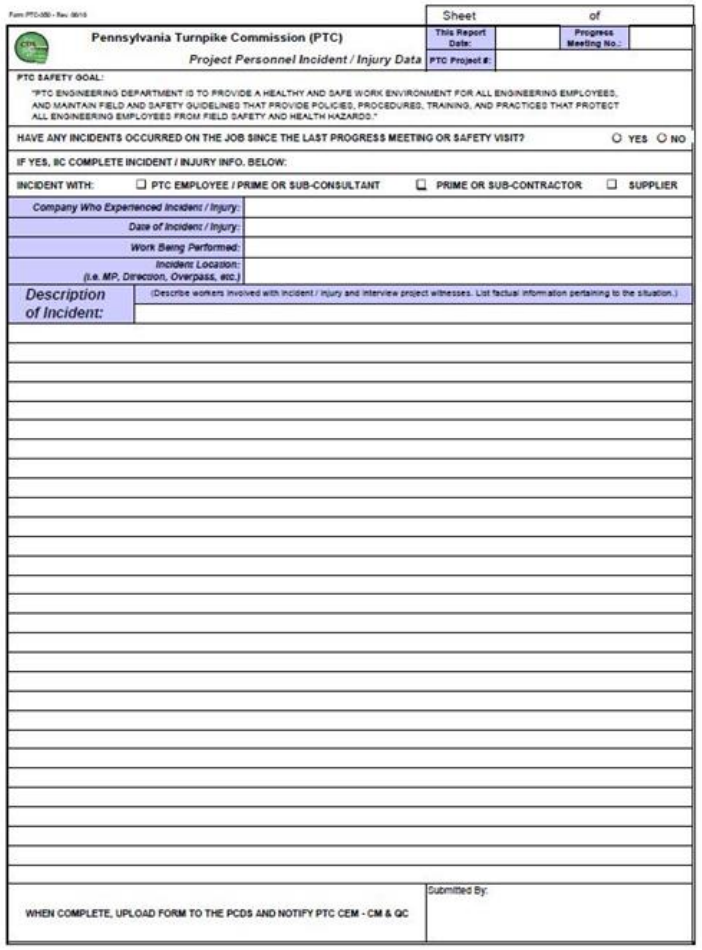
Project Personnel Incident / Injury Data Directions

PTC SAFETY GOAL:

"PTC ENGINEERING DEPARTMENT IS TO PROVIDE A HEALTHY AND SAFE WORK ENVIRONMENT FOR ALL ENGINEERING EMPLOYEES, AND MAINTAIN FIELD AND SAFETY GUIDELINES THAT PROVIDE POLICIES, PROCEDURES, TRAINING, AND PRACTICES THAT PROTECT ALL ENGINEERING EMPLOYEES FROM FIELD SAFETY AND HEALTH HAZARDS."

PURPOSE:	Develop a safety metric for the PTC Engineering - Construction to keep track of safety by all parts of the project team.
REGULATIONS & STATUTES:	OSHA 29 CFR SECTION 1926 (http://www.osha.gov)
ACTIVITIES:	For all construction projects owned by the PTC: • **Project Personnel includes**: PTC Employee, PTC Prime and Sub-Consultants, Prime and Sub-Contractors, and Suppliers. • Inspector In-Charge (IIC) from Construction Project will complete the following worksheet(s) to report any incident / injury that occurs to project personnel. • IIC from Construction Project shall report any project personnel incident / injury that occurs in the work zone. • This incident / injury information will be used by the Work Zone Safety Subcommittee to track incidents and develop trend data from PTC construction projects on an annual basis. • BE SAFE ON, AND OFF, THE JOB.
MILESTONES:	• Track incident information and develop trend data on an annual basis. • Minimize incidents/injuries on PTC construction projects • Revise engineering department field safety guidelines, if applicable.
APPENDIX:	Included in engineering department field safety guidelines, if applicable.
FLOW CHART:	1) IIC shall complete the incident / injury information form before each progress meeting. 2) IIC shall complete Form PTC-350, upload the form to PCDS and notify the PTC Construction Engineering Manager - Construction Management and Quality Control (CEM - CM & QC). 3) PTC CEM - CM & QC, or designee, shall develop safety trend data for Turnpike construction projects.
FORMS:	PTC-350 (Project Personnel Incident / Injury Form)

WHEN COMPLETE, UPLOAD FORM TO THE PCDS AND NOTIFY PTC CEM - CM & QC



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Pennsylvania Turnpike Commission (PTC)

Project Personnel Incident / Injury Data

This Report Date: | Progress Meeting No.: | PTC Project #:

PTC SAFETY GOAL:

"PTC ENGINEERING DEPARTMENT IS TO PROVIDE A HEALTHY AND SAFE WORK ENVIRONMENT FOR ALL ENGINEERING EMPLOYEES, AND MAINTAIN FIELD AND SAFETY GUIDELINES THAT PROVIDE POLICIES, PROCEDURES, TRAINING, AND PRACTICES THAT PROTECT ALL ENGINEERING EMPLOYEES FROM FIELD SAFETY AND HEALTH HAZARDS."

HAVE ANY INCIDENTS OCCURRED ON THE JOB SINCE THE LAST PROGRESS MEETING OR SAFETY VISIT? ○ YES ○ NO

IF YES, BC COMPLETE INCIDENT / INJURY INFO. BELOW:

INCIDENT WITH: ☐ PTC EMPLOYEE / PRIME OR SUB-CONSULTANT ☐ PRIME OR SUB-CONTRACTOR ☐ SUPPLIER

Company Who Experienced Incident / Injury:	
Date of Incident / Injury:	
Work Being Performed:	
Incident Location: (i.e. MP, Direction, Overpass, etc.)	

Description of Incident: (Describe workers involved with incident / injury and interview project witnesses. List factual information pertaining to the situation.)

WHEN COMPLETE, UPLOAD FORM TO THE PCDS AND NOTIFY PTC CEM - CM & QC

Submitted By:

OSHA Training Toolbox Talk: Personal Protective Equipment – Eye Protection

[Reference 1910.133 / 1926.102]

Think of some excuse you have used (or heard others use) for not wearing your eye protection: they are not comfortable; they are dirty; they fogged up, you were going to be doing a hazardous task for just a few seconds and did not want to stop and put them on . . .

While you may think some or all of these excuses sound like good reasons for not wearing your safety glasses or goggles at work, consider what could happen if an accident occurred and injured one or both of your eyes. Is it worth risking injury, or even blindness, for any one of those reasons? Absolutely not!

OSHA's standards for eye protection are intended to help prevent accidents that can lead to serious injuries, up to including blindness, caused by a variety of hazards. These hazards include flying particles (such as those present when cutting, chipping, drilling, grinding, brushing, and blowing with compressed air), molten metal (torch cutting, welding, brazing), liquid chemicals (mixing, cleaning, measuring), acids or caustic liquids (applying cleaners, filling batteries), chemical gases or vapors (cleaning, mixing, spraying, heating), or potentially injurious light radiation (welding, cutting, brazing, lasers).

Here are some of the major requirements of the OSHA standards for eye and face protection that help protect you and me:

- All eye and face protection devices, such as safety glasses, goggles, and face shields must be marked that they meet or exceed the test requirements of ANSI Z87.1-1989. The marking is typically located somewhere on the frame of the glasses or goggles.
- Safety glasses used to protect workers from flying objects must also have side protectors built into the design, or attachable side shields that meet the above-referenced ANSI standard, to prevent objects and particles from injuring your eyes from the sides. Flimsy "slide-on" side shields are not acceptable substitutes.
- Workers needing corrective lenses must either wear approved safety glasses with prescription lenses and frames that meet or exceed the above-referenced ANSI standard, or wear approved goggles designed to be worn over their regular prescription glasses that meet the ANSI standard.

If you are unsure whether or not your safety glasses or goggles are the proper type, or if they are ever damaged or lost, please report to your supervisor at once so we can take appropriate action where needed. Because as we discussed earlier, you could be injured, or even lose your sight, in the blink of an eye!

Any question or comment about these OSHA requirements for eye protection devices? Please be sure to sign-in on the training certification form.

Contractor Safety Program Compliance

- The IIC is responsible for assuring that each inspector receives safety briefings regarding potential hazards and any required safety procedures for each operation.
- Participation in contractor safety briefings are acceptable.
- Toolbox talks available at:

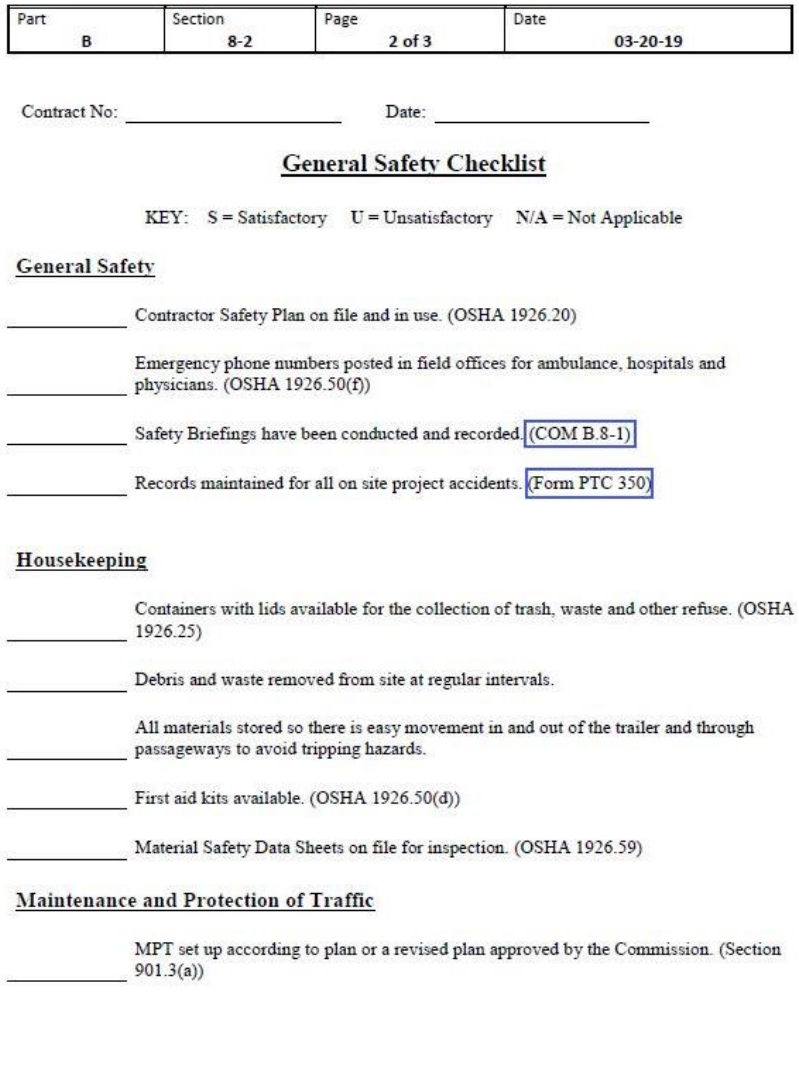
https://www.oshatraining.com/Toolbox-Talks.php

Contractor Safety Programs

- A safety program is required by the contractor and shall be submitted in a written format in the PCDS in accordance with Section 107.08.
- All subcontractors and suppliers are to abide by the prime contractor’s safety program at a minimum.
- Commission will perform a cursory review of contractor safety programs.

Contractor Safety Programs

- General Safety Checklist - check at least quarterly.
- Upload the completed checklist to the PCDS.
- Note: Checklist does not necessarily include all requirements of the contractor safety program.



Part	Section	Page	Date
B	8-2	2 of 3	03-20-19

Contract No: _____ Date: _____

General Safety Checklist

KEY: S = Satisfactory U = Unsatisfactory N/A = Not Applicable

General Safety

_____ Contractor Safety Plan on file and in use. (OSHA 1926.20)

_____ Emergency phone numbers posted in field offices for ambulance, hospitals and physicians. (OSHA 1926.50(f))

_____ Safety Briefings have been conducted and recorded. (COM B.8-1)

_____ Records maintained for all on site project accidents. (Form PTC 350)

Housekeeping

_____ Containers with lids available for the collection of trash, waste and other refuse. (OSHA 1926.25)

_____ Debris and waste removed from site at regular intervals.

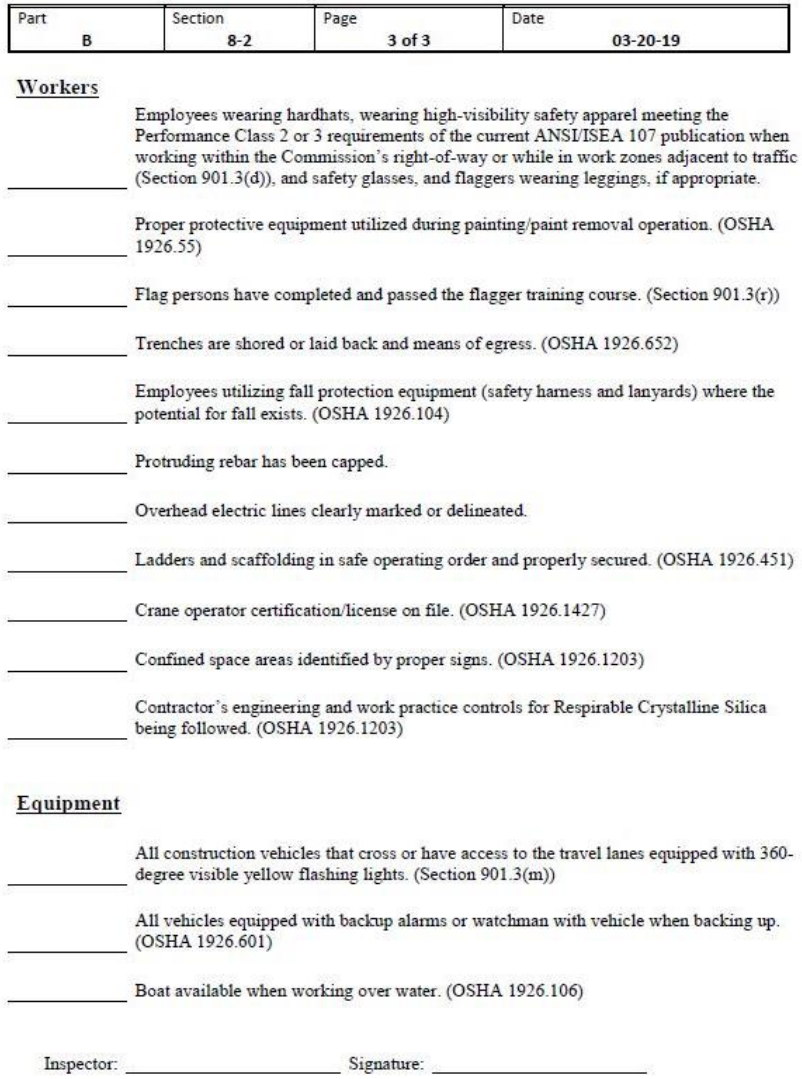
_____ All materials stored so there is easy movement in and out of the trailer and through passageways to avoid tripping hazards.

_____ First aid kits available. (OSHA 1926.50(d))

_____ Material Safety Data Sheets on file for inspection. (OSHA 1926.59)

Maintenance and Protection of Traffic

_____ MPT set up according to plan or a revised plan approved by the Commission. (Section 901.3(a))



Part	Section	Page	Date
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Workers

_____ Employees wearing hardhats, wearing high-visibility safety apparel meeting the Performance Class 2 or 3 requirements of the current ANSI/ISEA 107 publication when working within the Commission's right-of-way or while in work zones adjacent to traffic (Section 901.3(d)), and safety glasses, and flaggers wearing leggings, if appropriate.

_____ Proper protective equipment utilized during painting/paint removal operation. (OSHA 1926.55)

_____ Flag persons have completed and passed the flagger training course. (Section 901.3(r))

_____ Trenches are shored or laid back and means of egress. (OSHA 1926.652)

_____ Employees utilizing fall protection equipment (safety harness and lanyards) where the potential for fall exists. (OSHA 1926.104)

_____ Protruding rebar has been capped.

_____ Overhead electric lines clearly marked or delineated.

_____ Ladders and scaffolding in safe operating order and properly secured. (OSHA 1926.451)

_____ Crane operator certification/license on file. (OSHA 1926.1427)

_____ Confined space areas identified by proper signs. (OSHA 1926.1203)

_____ Contractor's engineering and work practice controls for Respirable Crystalline Silica being followed. (OSHA 1926.1203)

Equipment

_____ All construction vehicles that cross or have access to the travel lanes equipped with 360-degree visible yellow flashing lights. (Section 901.3(m))

_____ All vehicles equipped with backup alarms or watchman with vehicle when backing up. (OSHA 1926.601)

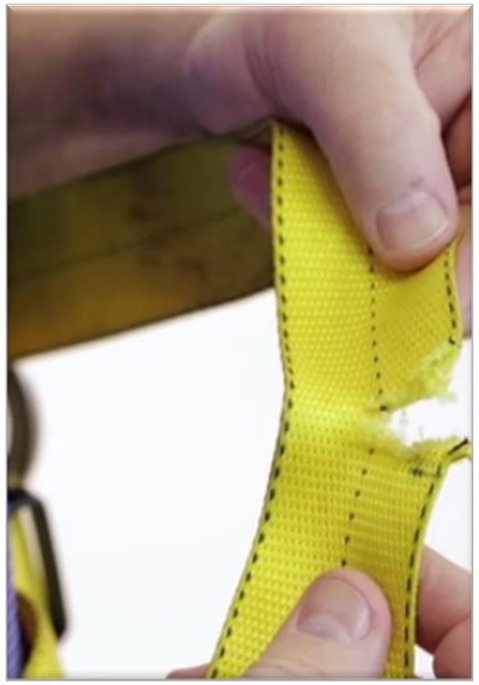
_____ Boat available when working over water. (OSHA 1926.106)

Inspector: _____ Signature: _____

CS 107.08 – Occupational Safety and Health

- Contractual requirement for contractor to comply with applicable Federal, State, and local laws and regulations, provisions, and policies governing safety and health.
- Prior to or at the preconstruction conference, submit a written **Project Safety Program**. Must address vehicle ingress and egress from work zone.
- Immediately take corrective action of any noncompliance. Failure to comply will be cause for a written stop work order to be issued until corrective action is taken.

Personal Protective Equipment (PPE)



PPE Condition – Replace When Necessary

CS 107.08 & CS 901.3(d) – High Visibility Apparel

CLASS 2

CLASS 3

Combine ANSI Class 2 and Supplemental Class E apparel for an ANSI Class 3 ensemble. Combine ANSI Class 3 and Supplemental Class E apparel to attain higher level visibility.

- Require high-visibility safety apparel meeting Performance Class 2 or 3 requirements of the current ANSI/ISEA 107 when working within PTC ROW or while in work zones adjacent to traffic.

PTC Employees and Consultants

- 5/14/15 Memo from COO - For all daylight and nighttime operations, **a Class 3 safety vest is mandatory**. A Class 3 safety vest must be utilized by all PTC employees while along the roadway or when exposed to traffic.
- 2/22/17 Email from ACE Construction – **The use of leggings at nighttime (dusk to dawn) is mandatory** for all PTC engineering employees and consultants not protected by barrier when working within the roadway or shoulder of the Turnpike or other roadways.

PENNA TURN PIKE

MEMO

CRAIG R. SHUEY, COO

DATE: May 14, 2015

TO: Maintenance
FEMO
Engineering
Traffic Engineering and Operations

FROM: Craig R. Shuey
Chief Operating Officer

SUBJECT: Class 3 Safety Vests and Leggings

This memo supersedes all previous directives, email communications or memos issued regarding the use of Class 3 safety vests and leggings.

For all daylight and nighttime operations, a Class 3 safety vest is **mandatory**. A Class 3 safety vest must be utilized by all PTC employees while along the roadway or when exposed to traffic.

Further and effective immediately, the use of leggings will be **optional** for all Pennsylvania Turnpike Commission employees in Maintenance, FEMO, Engineering, and any other department engaging in roadway-related activities.

It is the responsibility of the supervisor to determine the need for leggings on a case-by-case basis. The supervisor will determine if additional visibility would enhance an employee's safety.

It is permissible for employees to utilize leggings at any time during roadway operations.

On behalf of Mike Shaak,

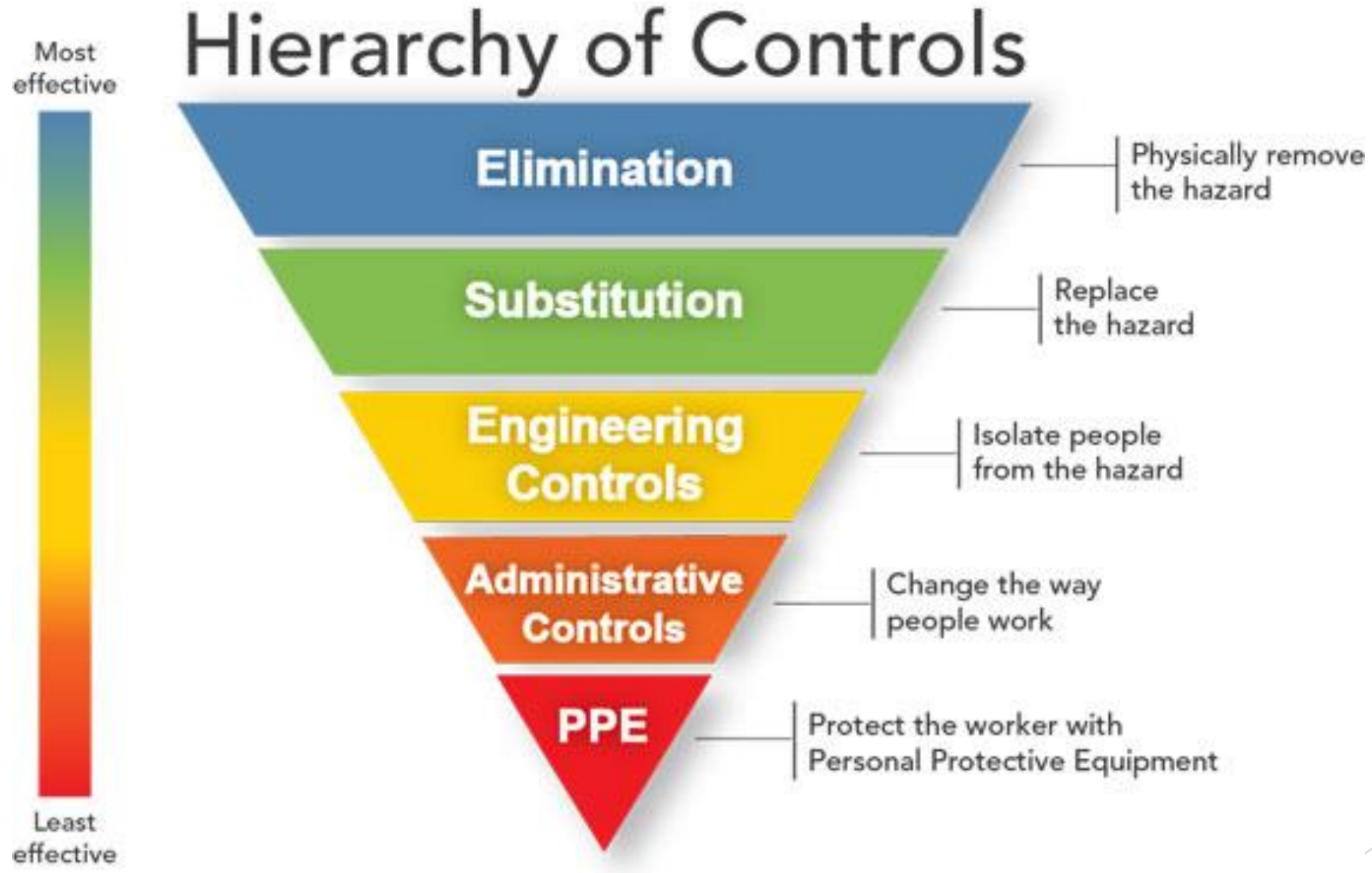
This e-mail is to provide direction to all PTC Engineering employees and consultants while working along the roadway or when exposed to traffic regarding the use of Class 3 safety vests and leggings.

In addition to the direction of Craig Shuey's memo (attached) dated May 14, 2015, which mandates the use of a Class 3 safety vest during daylight and nighttime construction operations, the use of leggings at nighttime, from dusk to dawn, **is mandatory** for all PTC Engineering employees and consultants not protected by barrier when working within the roadway or shoulder of the Turnpike or other roadways.

Thank you.

CS 107.08 – Hard Hats

- ***All areas of a project will be hard hat areas.*** Require all persons within the project limits to wear protective headgear, including persons in cement concrete and asphalt concrete plants operated exclusively for a project, even though the plant(s) may be remotely located.



Hierarchy of Safety Controls

Help to Prevent Injuries

- Plan
  - Conduct a job hazard analysis to identify:
    - Operations, tools, and tasks that could present hazards.
    - Substitute materials, engineering controls, administrative controls, protective measures, and/or PPE.
- Train all project employees before work begins.
  - Methods to protect workers from hazards.
  - Include specific job examples.
- Track progress – monitor, additional training, and review injury data.

Common Injuries

- Head
- Eye
- Hearing
- Hand
- Foot

Head Injuries

- In 2018 almost 8,000 construction workers suffered a head injury and 230 died from their injury.
- Common causes of head injuries:
  - Being struck by a falling tool, material, or moving object.
  - Falling and contacting the ground or other surface.
  - Contacting overhead hazards (fixed object, equipment, electrical wires, etc.).

Head Injuries

- You can see some head injuries - cuts, burns, and bruises.
- You cannot see a concussion which is a type of traumatic brain injury.
- A severe traumatic brain injury can be fatal.

Head Injuries

- Some concussion signs:
  - Being dizzy
  - A headache that gets worse over time
  - Blurred vision and dilated pupils
  - Being dazed, confused, or disoriented
  - Clear fluids draining from nose & ears
  - Vomiting or nausea
  - Ringing in the ears
  - Convulsions or seizures
  - Loss of consciousness
  - Inability to wake up
- See a doctor if you injure your head and have symptoms.
- Get help if a co-worker has a head injury.

Each year,

thousands of workers suffer a **head injury** and **hundreds die.**[1]

Protect Your Head

Always wear head protection.
It can protect you from cuts, burns, bruises, traumatic brain injuries like concussions, and death.

For more information, visit http://bit.ly/3qEb3zO

CPWR
THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING

 CPWR is the research and training arm of NABTU. Production of this document was supported by cooperative agreement OH 009762 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.

[1]Bureau of Labor Statistics, Injuries, Illnesses and Fatalities Databases (https://www.bls.gov/iif/); accessed 1/2020.

Head Injuries

- Again, **all areas of a project will be hard hat areas**.
  - ANSI marking on both the shell and suspension.
  - Make sure hard hat fits.
  - Right type and class of hard hat for the job.
- Check for damage before each use.
- Replace if damaged.

https://www.cpwr.com/research/research-to-practice-r2p/r2p-library/other-resources-for-stakeholders/head-injuries/

The ABCs of Eye Injury Prevention:

Assess your hazards and have a safe worksite.

Be sure your eyewear fits properly.

Comply with eye safety requirements.

National Eye Health Education Program
NEHEP
A program of the National Institutes of Health

National Institute for Occupational Safety and Health
NIOSH

Learn more by visiting
www.cdc.gov/niosh/topics/eye

Eye Injuries

- Hazards
  - Hammering, grinding, sanding, etc., may produce particles.
  - Handling chemicals may lead to splashes in the eye.
  - Cement in the eye can cause a chemical burn.
  - Welding exposure to arcs and flashes (UV radiation).
  - Dusty or windy conditions can lead to particles in the eye.
  - Simply passing through an area where work is being performed.
  - Coworkers in the area may generate the hazard.

Eye Injuries

- Safety strategy
  - Engineering controls - machine guards which prevent particle escape or welding curtains for arc flash.
  - Administrative controls - making certain areas “off limits” unless that is your work assignment or routing foot traffic away from active work areas.
  - PPE – protective eyewear (does not remove all risk).

Eye Injuries

- Checklist
  - Create a safe work environment
    - Minimize hazards from falling or unstable debris.
    - Make sure that tools work and safety features (machine guards) are in place.
    - Make sure that workers know how to use tools properly.
    - Keep non-essential personnel out of the hazard area.
  - Evaluate safety hazards.
    - Identify the primary hazards at the site.
    - Identify hazards posed by nearby workers, machinery, and debris.

Eye Injuries

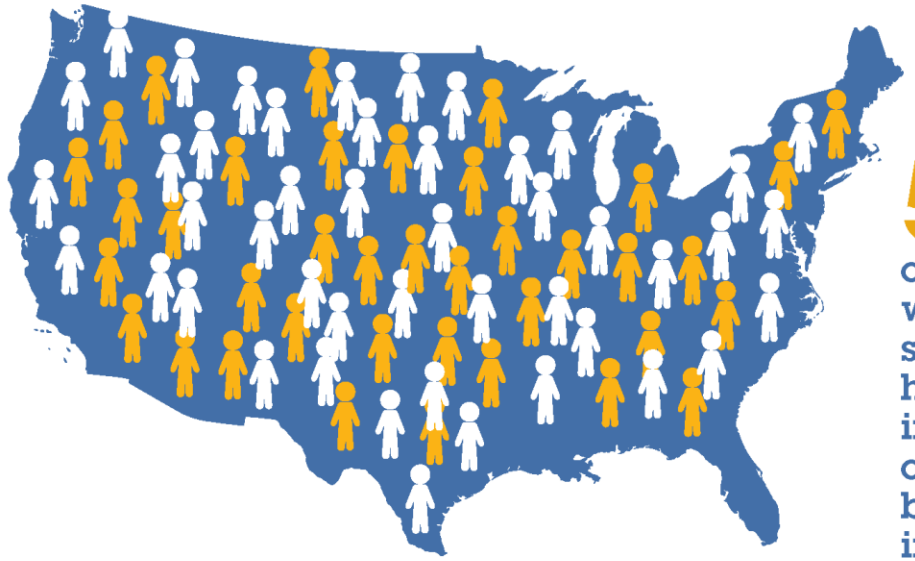
- Checklist (continued)
  - Wear the proper eye protection.
    - Select the appropriate eye protection for the hazard.
    - Make sure the eye protection is in good condition, fits, and will stay in place.
  - Use good work practices.
    - Remove dust and debris from hardhats, hair, forehead, or the top of the eye protection before removing the eye protection.
    - Do not rub eyes with dirty hands or clothing.
    - Clean protective eyewear regularly.
  - Have an eye wash, sterile solution, and other first aid on hand.

https://www.cdc.gov/niosh/topics/eye/default.html

Hearing Loss

- Noise induced hearing loss
  - Most common work-related illness.
  - Damage depends on loudness and exposure duration.
- Effects of hearing loss
  - Difficulty hearing warning signals on the jobs.
  - Increase the risk of falling.
  - Contribute to loneliness and depression.
  - Increase stress, blood pressure, hypertension and cardiovascular disease.
  - Leads to nervousness, sleeplessness, and fatigue.

Did you know that hearing loss is one of the most common work-related illnesses in the United States?



50%
of construction workers have some job-related hearing problem, including hearing loss or (((ringing, whistling, buzzing, or humming))) in the ears (tinnitus).

You can do something to prevent hearing loss. Buy Quiet!

CDC Workplace Safety and Health NIOSH

http://www.cdc.gov/niosh/topics/buyquiet

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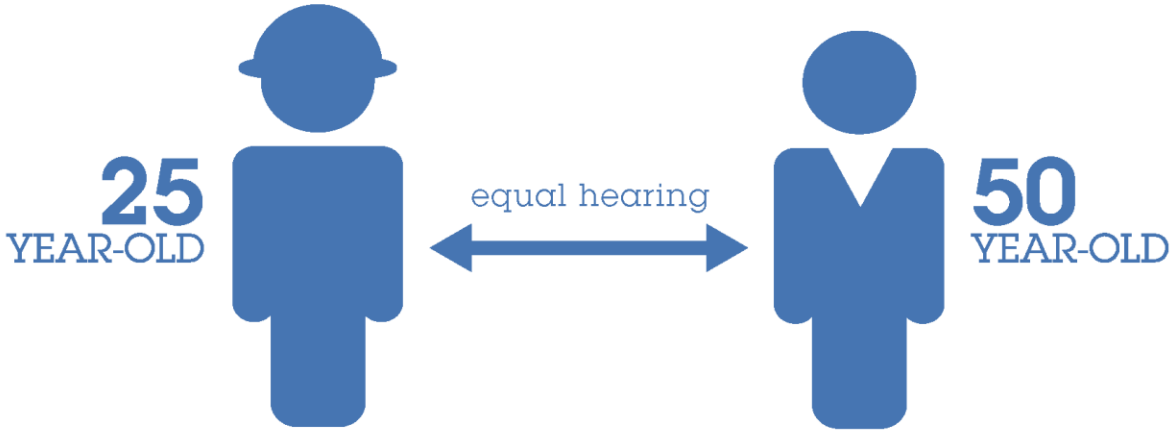
It's common for construction workers to have the hearing of workers twice their age.



Is it too loud at work? Talk to your employer about quieter tools and machinery.

CDC Workplace Safety and Health NIOSH

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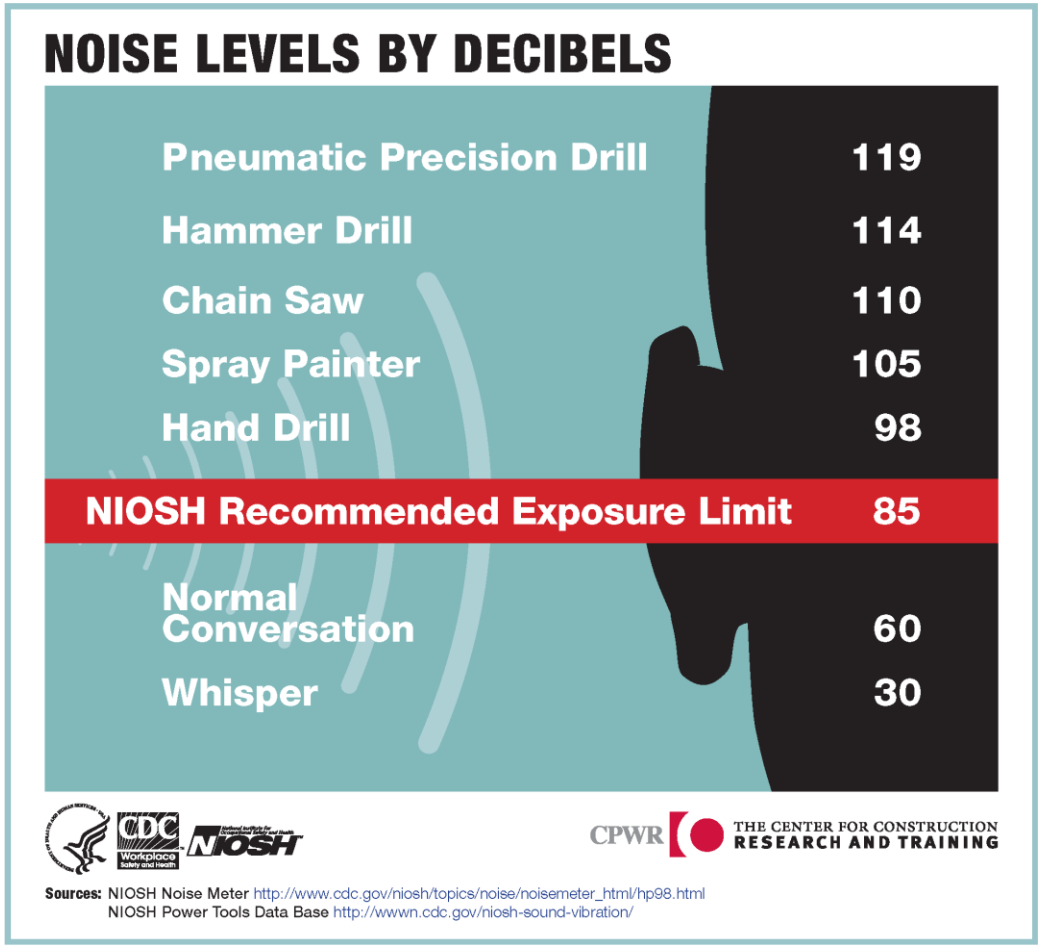
http://www.cdc.gov/niosh/topics/buyquiet

Hearing Loss

- How loud is too loud?
  - Shout to be heard 2 to 3 feet away.
  - Turn equipment off to be heard.
  - Move to another location to talk and be heard.



NOISE

73% of the time CONSTRUCTION WORKERS are exposed over the NIOSH recommended exposure limit

CDC Workplace Safety and Health | NIOSH

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Source: The Construction Chart Book, p. 33, chart 33f, CPWR.
http://www.cpwr.com/sites/default/files/publications/CB%20page%2033.pdf

Hearing Loss

- Engineering controls
  - Low noise equipment
  - Barriers and enclosures
  - Noise suppression (mufflers) on equipment
  - Equipment maintenance- belts, lubrication, etc.
- Administrative controls
  - Signs
  - Designated areas for noisy tasks
  - Strategic placement of loud equipment

Repeated exposures to noise above 85 decibels OR one exposure above 140 decibels can lead to irreversible hearing loss

BUY QUIET

Buying a tool just 3 decibels lower will cut the noise energy reaching your ear in half!

CDC Workplace Safety and Health NIOSH

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http://www.cdc.gov/niosh/topics/buyquiet

Correctly worn hearing protection can be effective but should not be the only line of defense – Buy Quiet!

CDC Workplace Safety and Health NIOSH

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http://www.cdc.gov/niosh/topics/buyquiet

Hearing Loss

- Types of hearing protection:
  - Foam (formable) plugs
  - Reusable earplugs
  - Custom molded plugs
  - Banded or semi-aural
  - Earmuffs
- There are advantages and disadvantages to each type of hearing protection.

Hearing Loss

- Selecting hearing protection:
  - Convenience
  - Comfort
  - Communication needs
  - Hygiene
  - Hearing ability of worker
  - Noise level
  - Noise reduction needed (most important)
- Noise reduction rating (NRR) - higher the NRR the greater the protection.

https://www.cdc.gov/niosh/topics/noise/default.html

Hand Injuries

- Key points
  - In 2010 approximately 1 out of every 5 construction workers experienced a hand, wrist, or finger injury that resulted in days away from work.
  - Finger and hands injuries account for approximately one-third of emergency room visits.
  - About 15 percent of hand injuries are amputations, partial amputations, crushes, and fractures.
  - A hand injury can significantly hinder a worker's job performance, end a career, and impact overall quality of life.

Hand Injuries

- Common work-related hand injuries and causes:
  - Fractures, crushing, and amputations – falling objects or caught between objects.
  - Lacerations, cuts, and punctures – contact with sharp objects.
  - Burns – contact with hot surface or chemicals.
  - Skin disorders - contact with chemicals.
  - Strains, sprains, and other musculoskeletal disorders (MSD) – using the wrong tool for the job (tool too heavy, tool too big for the hand, awkward hand position, etc.).

Hand Injuries

- Preventive measures
  - Stay alert and focused on keeping your hands safe.
  - Before starting a task, identify tool and equipment safety features, and check that tools and equipment work properly.
  - Properly use tools and equipment designed for the job.
  - Keep guards in place on power tools and equipment.
  - Do not put your hands near moving parts of a power tool or equipment.

Hand Injuries

- Preventative measures (continued)
  - Keep hands away from sharp objects.
  - Select ergonomic tools (the right size, weight, and features that allow work without a bent wrist).
  - Do not wear rings or jewelry that could get caught on a moving object.
  - Wear gloves that are not damaged, are right for the job, and fit properly.
  - Inspect, properly don, and properly doff gloves.

https://www.choosehandsafety.org/

Foot Injuries

- Key points
  - Foot injuries are among the most common workers' compensation injuries.
  - In 2014 the Bureau of Labor Statistics reported over 52,000 cases of work-related foot injuries.
  - Foot injuries can be especially painful and slow to heal.
  - Foot problems can ultimately lead to pain in your knees, hips, and back.
  - Foot Protection - see OSHA 1915.156

Foot Injuries

- Common work-related foot injuries and causes:
  - Fractures, crushing, and amputations – falling objects or caught between objects.
  - Lacerations, cuts, or punctures - contact with sharp objects.
  - Burns – contact with hot surface or chemicals.
  - Electric shock – Static electricity or contact with electrical sources.
  - Sprains and strains – slips, trips, or falls.

Foot Injuries

- Preventative measures
  - Avoid distractions, stay focused, and do not rush.
  - Keep guards in place on power tools and equipment.
  - Good housekeeping
    - Keep the work area free of clutter.
    - Clean up spills promptly.
    - Handle chemicals with care to avoid accidental contact.
  - Adequate lighting.
  - Signage where safety footwear is required.

Foot Injuries

- Preventative measures
  - Leggings to protect the lower legs and feet from heat hazards.
  - Keep feet, socks, and footwear clean and dry.
  - Inspect foot protection prior to use.
  - Wear footwear that is not damaged, is right for the job, and fits properly.
  - Follow manufacturer's recommendations for cleaning and maintenance of foot protection.

Foot Injuries

- Preventative measures (continued)
  - Footwear - different footwear protects in different ways.
    - Chemical-resistance.
    - Impact-resistant toes.
    - Boots that are cut higher – added ankle protection and support.
    - Metatarsal guards – protects top of foot from compression.
    - Metal insoles – protects bottom of foot from puncture wounds.
    - Anti-fatigue insoles – support and shock absorption.
    - Soles - slip-resistant, heat-resistant, electrical hazard, conductive, or static dissipating.

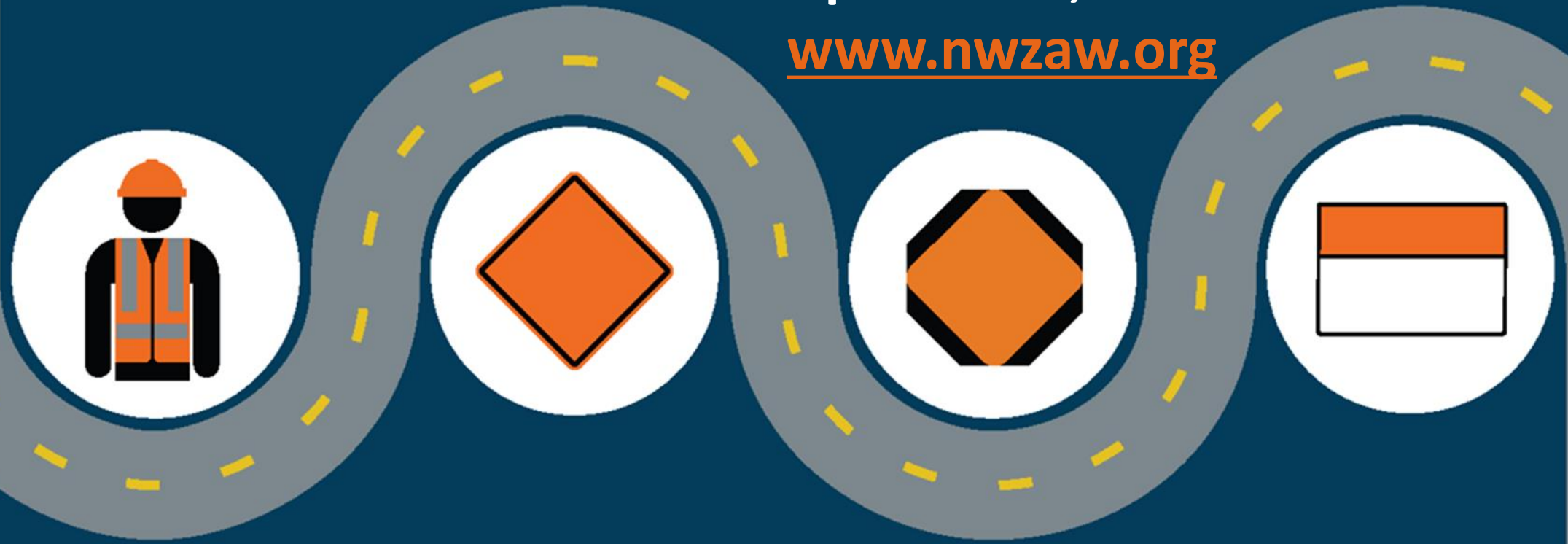
https://www.osha.gov/laws-regs/regulations/standardnumber/1915/1915.156
https://www.compliancesigns.com/blog/workplace-foot-injuries-causes-costs-and-prevention/
http://www4.ohsonline.com/Articles/2018/10/01/Foot-Injuries-Why-They-Matter.aspx

2022 NATIONAL WORK ZONE AWARENESS WEEK

WORK ZONES ARE A SIGN TO SLOW DOWN

April 11-15, 2022

www.nwzaw.org



https://www.constructionsafetyweek.com/

2022 STAND DOWN May 2-6

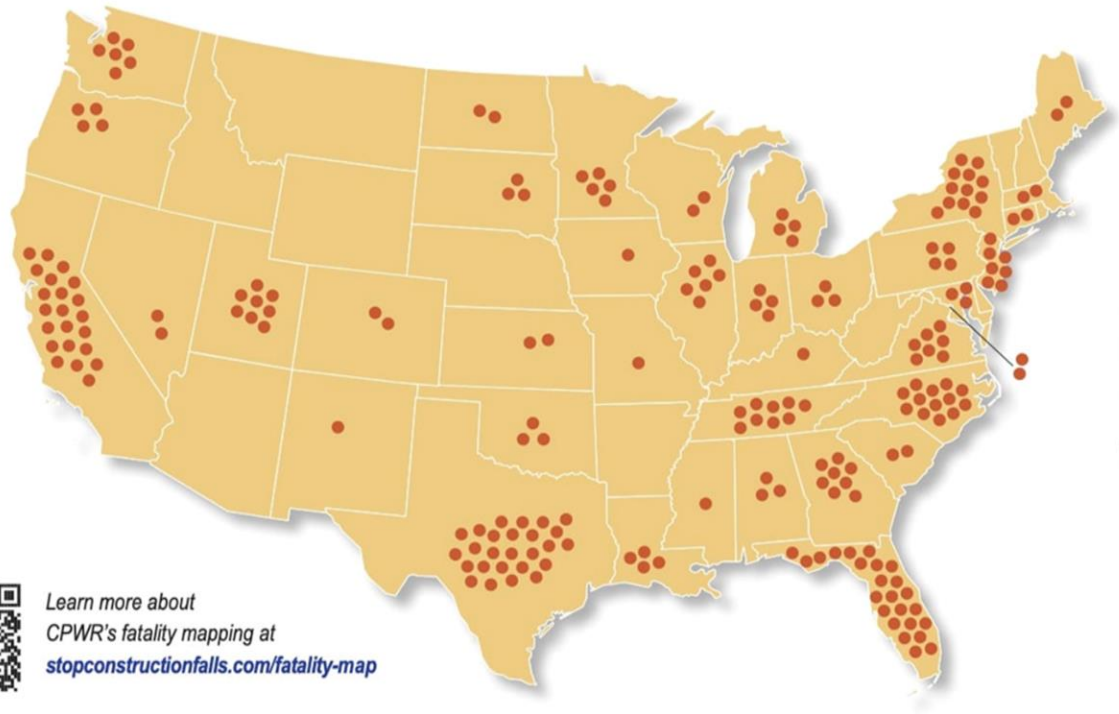
https://stopconstructionfalls.com/

Safety Pays Falls Cost

PLAN. PROVIDE. TRAIN.

Three simple steps to preventing falls.

DID YOU KNOW THAT FALLS ARE THE LEADING CAUSE OF DEATH IN CONSTRUCTION?



Each dot represents a fatal construction fall in 2020

Learn more about CPWR's fatality mapping at ***stopconstructionfalls.com/fatality-map***

APRIL 2021

Join the Campaign to Stop Construction Falls!

www.stopconstructionfalls.com

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CDC NIOSH NORA

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National Safety Month – June 2022

- 26th anniversary of the National Safety Council's National Safety Month
- https://www.nsc.org/work-safety/get-involved/national-safety-month

Questions?

- Enter any questions using Chat function.
- Presentation is being recorded.
- Link to the recording will be emailed to WebEx invitees.
- Upon completion email your name and company to branck@paturnpike.com to be added to the list of live WebEx attendees/recording viewers.