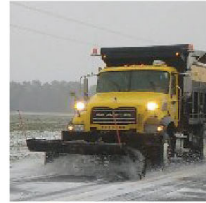


NORTH CAROLINA

Department of Transportation



2022 AGC/NCDOT Workshop
Don Parker, PE,
Kenneth Thornewell, PE, PTOE
Work Zone Traffic Control

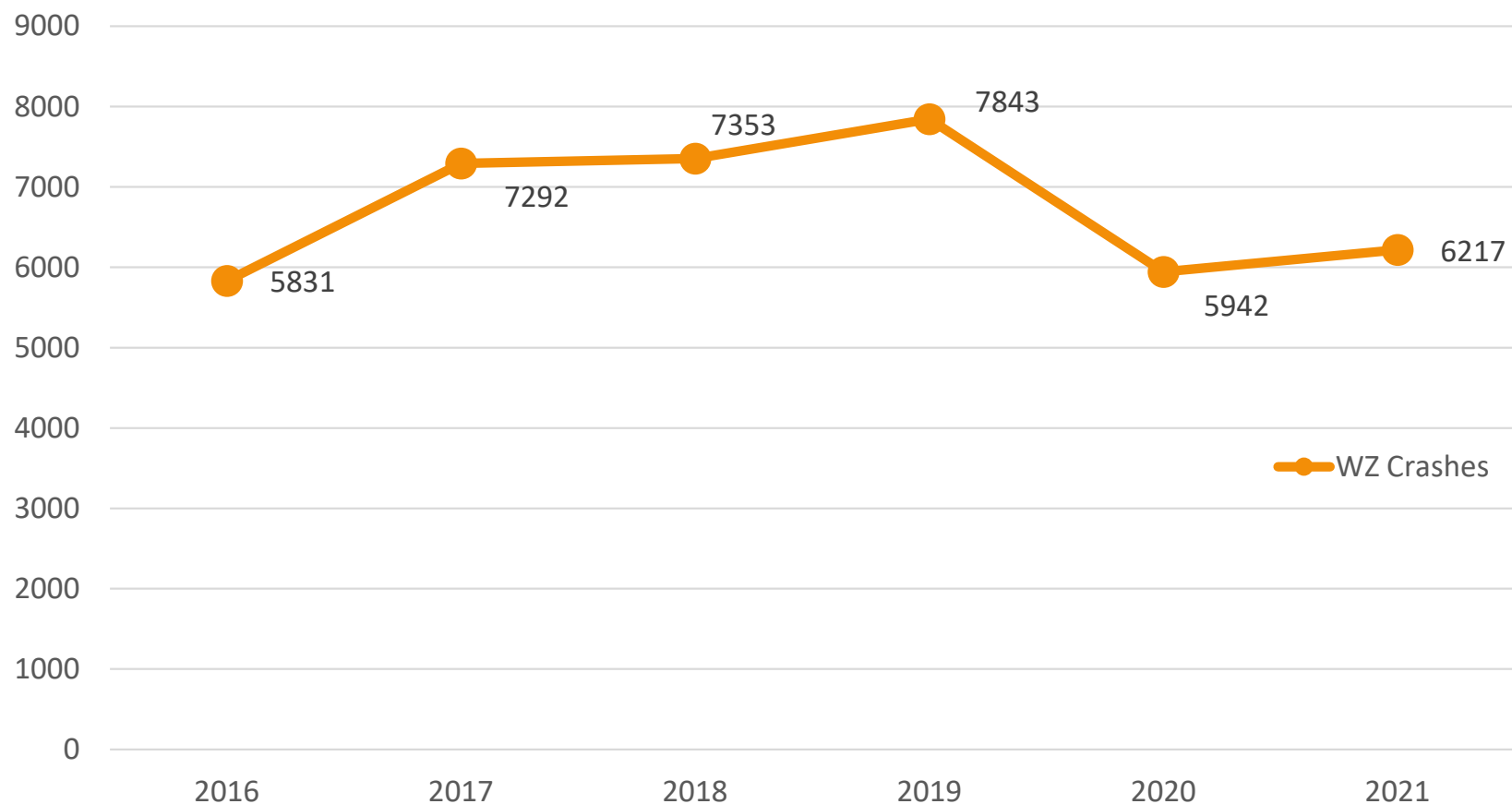
Today's Topics

- Work Zone Crash Data
- National WZ Safety Awareness Week
- WZ Installer Certification
- Pattern Masking Update
- WZ Safety Reviews
- Material and Equipment Storage
- Law Enforcement

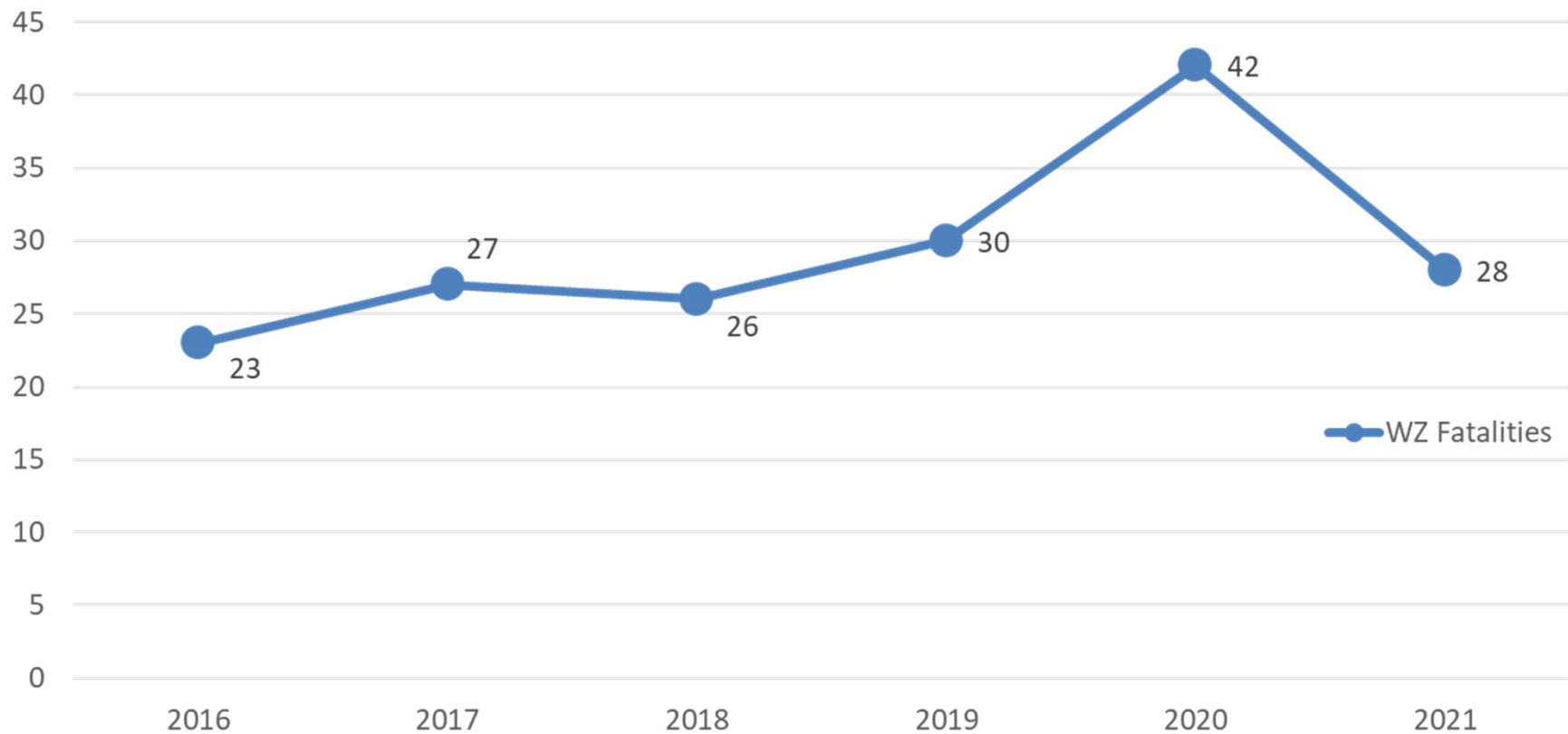
Work Zone Crash Data

- 2020 – 5,942 work zone crashes resulting in 43 fatalities
 - 40% higher than 2019 and 45% above than the 5-year average
- 2021 – 6,217 work zone crashes resulting in 28 fatalities
 - 32% lower than 2020 and 10% below the 5-year average
 - Data through 12/31/2021, however number aren't considered final until late spring to account for delayed fatalities and updated investigations

5 Year Trend of Work Zone Crashes



5 Year Trend for WZ Fatalities



UPDATE: Three construction workers on crew repairing guard rail on I-40 killed Thursday morning

DONNA SWICEGOOD Feb 27, 2020 Updated Feb 29, 2020 0

Construction worker dead, three others injured after being hit by drunk driver near Concord Mills Mall



Metro Creative

DONNA SWICEGOOD

The investigation into a crash that killed three construction workers on Interstate 40 early today is still ongoing.

Master Trooper Jeffrey Swagger of the North Carolina Highway Patrol said names of the three will be released once next-of-kin notifications have been completed.

He said the three workers were part of a crew that was repairing a guard rail on I-40 west near the 157-mile marker.

Swagger said there was a truck in the right lane, which was closed, and the workers were in the road ahead of that truck. A second truck was in front of three workers, he said.

my 40 MY40

48°

Search



NEWS ENTERTAINMENT SPORTS WEATHER STATION CHIME IN

Candler man killed in late night crash while working along I-26 in Buncombe County

BY KRISTY KEPLEY-STEWART, LAUREN BRIGMAN | MONDAY, DECEMBER 6TH 2021

Candler man killed in late night crash while working along I-26 in Buncombe County



Dec. 6, 2021 - Police say on Sunday, Dec. 5, 2021, at approximately 11:46 p.m. a vehicle driven by Caleb Luke Grindstaff, 30, of Bakersville, crashed on Future I-26 West between the exits for UNC Asheville (25) and Elk Mountain Road (24). Road construction worker Dario Caravajal Dominguez, 50, of Candler, died at the scene. (Photo credit: WLOS Staff)

TRENDING



Former Asheville police officer sues police chief, district attorney, City of Asheville



Another Rutherford County detainee hospitalized after apparent overdose



Friday Weather Update: Major snowstorm makes its way toward Western North Carolina



Union members at Evergreen Packaging undergo safety training

National Work Zone Safety Awareness Week

April 11-15, 2022



Wear Orange Day April 13th

Show support for those killed in work zones as well as their families.

Post images to social media

#Orange4Safety

#GoOrangeDay



Welcome Center I-95 SB in Northampton County just south of the Virginia Line

April 5-7, 2022 Press Conference TBA



Work Zone Installer Certification

- Effective July 1, 2021
- At least one member of every crew responsible for setup, installation, and removal of traffic control devices within any highway right of way shall be trained and certified as a Work Zone Installer.
- The certified Work Zone Installer should serve as crew leader and shall be on site and directing the installation and removal of temporary traffic control.

Work Zone Installer Certification

- The Work Zone Installer does not replace or change the requirements of a Work Zone Supervisor as described in article 1101-13 of the Standard Specifications.
- A supervisor can replace an installer during a TTC installation, but an Installer cannot be a replacement for the Supervisor

Updated Work Zone Safety Website

- Latest Memo is at the top of the page.
- Historical memos are to the right
- Added Installer course guidelines
- NEW in 2021: Work Zone Education Verification App (WZ-EVA)

The screenshot displays the 'Connect NCDOT BUSINESS PARTNER RESOURCES' website. The top navigation bar includes links for 'Doing Business', 'Bidding & Letting', 'Projects', 'Resources', and 'Local Governments'. A search bar is located on the right. Below the navigation bar, a secondary menu lists various project stages: 'Planning', 'Construction', 'Research', 'Roadway Design', 'Work Zone', 'Contracts', 'Toolkit', 'Bike & Pedestrian', 'Project Management', and 'Value Management'. The 'Work Zone' section is currently selected.

The main content area is titled 'Work Zone Safety Training' and 'Work Zone Safety Qualification and Training Program'. It features a breadcrumb trail: 'Connect NCDOT > Projects > Work Zone > Work Zone Safety Training'. Below this, a list of documents is shown, with the 'March 2021 Work Zone Certification Update' (dated 2021-03-10 15:00:49) highlighted by a red circle. Other documents include 'WZ - Minimum Training Requirements' (dated 2020-08-25 09:25:14) and 'Implementation Document - FHWA Final Rule on Safety & Mobility' (dated 2019-09-30 08:46:30).

Below the document list is the 'Approved Training Resources' section, which includes links for 'Work Zone Traffic Control Flagger Trainer Resources', 'Work Zone Traffic Control Flagger Training Resources', 'Work Zone Supervisor / Installer Training Resources', 'Work Zone Supervisor Instructor Training Resources', and 'NCDOT Maintenance Utility Traffic Control Guidelines'.

On the right side of the page, there are two sections highlighted with red circles. The top section is 'Work Zone Education Verification (WZ-EVA)', which includes a link for 'Instruction For Uploading Training Certifications' and a link for 'Work Zone Education Verification'. The bottom section is 'Training Memo Archive', which lists 'WZ_Certifications Extension MEMO_Nov2020' and 'WZ_Certifications_Extension_MEMO_July2020', both with PDF icons.

At the bottom right, there is a 'Contact Form' section with the text: 'For questions & feedback about this area of Connect NCDOT, contact WZ Training and Certifications.'

Work Zone Education Verification App (WZ-EVA)

- Online database for Residents and Inspectors to verify WZ training credentials
- Records are uploaded by training firms

BROWSE PAGE PUBLISH Kenneth C. Thorn

Connect NCDOT
BUSINESS PARTNER RESOURCES

Home Help Team Sites

Doing Business Bidding & Letting Projects Resources Municipalities Search...

Work Zone Education Verification Search Verified Personnel

Connect NCDOT Work Zone Education Verification Search Verified Personnel

Work Zone Education Verification

- Verified Personnel Search
- Upload new
- Print Cards
- Personnel
- Mobile View
- NCDOT Staff
- Recent

Last Name	First Name	MI	Certification Type	Expiration Date	Class Date	Trained By	Training Firm	Training Program	UniqueNum	Card	Status
Abbott	Scott		Flagger	10/15/2022	10/16/2018	Tim Baughman	ITRE	ITRE	WZ100962537	Card	Active
Abdalla	Hany		WZ Installer	6/8/2024	6/9/2020	Scott Tison	ITRE	ITRE	WZ277729704	Card	Active
Ables	William		Flagger	9/21/2024	9/21/2020	Idaly Patridge	ITRE	ITRE	WZ335876375	Card	Active
Adame	Juan		WZ Supervisor	12/10/2023	12/11/2019	Scott Tison	ITRE	ITRE	WZ408333546	Card	Active
Adams	Levi		Flagger	7/1/2021	5/30/2017	Tim Baughman	ITRE	ITRE	WZ82299510	Card	Active
Adams	Kenny		WZ Supervisor	3/20/2023	3/21/2019	Tim Baughman	ITRE	ITRE	WZ66881760	Card	Active
Ahren	Peter		WZ Supervisor	9/13/2021	9/14/2017	Tim Baughman	ITRE	ITRE	WZ425215193	Card	Active
Albers	Cory		Flagger	3/1/2022	3/2/2018	Scott Tison	ITRE	ITRE	WZ110414301	Card	Active
Alcantara	Luis		WZ Installer	7/24/2022	7/25/2018	Tim Baughman	ITRE	ITRE	WZ128491450	Card	Active
Alexander	Paul		WZ Installer	5/7/2022	5/8/2018	Tim Baughman	ITRE	ITRE	WZ409788873	Card	Active
Alford	Michael	Scott	WZ Supervisor	12/17/2024	12/17/2020	Scott Tison	ITRE	ITRE	WZ358852029	Card	Active

Work Zone Education Verification App (WZ-EVA)

- **July 1, 2022** – Deadline to have all training records uploaded to WZ-EVA
- Public-facing site does not allow for printing wallet cards
 - Only individuals approved to upload records can print wallet cards.
 - Trainers need to provide wallet cards to students.
- NCDOT does not provide hard-copy wallet cards. We will issue digital wallet cards only to individuals seeking 1-year SC/VA reciprocity.

Work Zone Education Verification App (WZ-EVA)

- Each certification has a unique identifying number.
- Re-certifications will get a unique number
- System will generate flagger/installer/supervisor wallet cards



Name *Trainee Name*

NCDOT Certification Type: Flagger

Training: 5/30/2017-Expires: 7/1/2021

ID: *Unique ID Number*

Card holder completed approved training program
developed by ITRE, training conducted by Tim Baughman
of ITRE.

Pattern Masking Update



Pattern Masking Update

- Conceals existing pavement markings eliminating grind marks and ghost lines
- Failures/Success
- Poor Dry Time
 - Durability
 - Increases Risk to Contractor
- Put a pause on including in new contracts
- Opportunities in lower profile, bid build projects

Pattern Masking Update

- Current Efforts
 - Realistic Dry Time Requirements
 - Timing of the Application
- A lot must go right for a successful application, little or no room for error
- What if we installed the pattern masking after the traffic shift?
 - Line removal to paint to complete the initial traffic shift
 - Mask in successive work periods
- New Manufacturer

Work Zone Safety Reviews

CORRECT IMMEDIATELY		DOES NOT MEET STANDARDS		MEETS STANDARDS		EXCEEDS STANDARDS	
1		2		3		4	
CATEGORIES				SCORE	NOTES		
1	TEMPORARY SIGNING- Portable/Stationary/Barricade Mount (Signs, Sign Supports)	A	CONDITION	3			
		B	PLACEMENT	3			
		C	SPACING	3			
2	TEMPORARY SIGNING- Digital Speed Limit (Speed/Flashing Beacons/Brightness)	A	CONDITION				
		B	PLACEMENT				
		C	SPACING				
3	CHANNELIZATION DEVICES (Cones, Drums, Skinny Drums, Barricades)	A	CONES	3	Drums throughout project have past useful life & need replacing. Type III barricades need to be installed across roadway to indicate roadway/exit is closed, SB 52 exit 117.		
		B	DRUMS	2			
		C	SKINNY DRUM	3			
		D	BARRICADES	2			
4	TEMPORARY PAVEMENT MARKINGS (Paint, Tape, Raised Markers)	A	CONDITION	2	Markings throughout project are missing and/or need refreshing.		
		B	PLACEMENT	3			
		C	REMOVAL or MASKING	3			
5	BARRIER- Concrete, Water-filled, Other (Delineators?) (Anchored?)	A	CONDITION	2	See Comments. Many runs of PCB not shown on TMP or installed in violation of TMP and RFP.		
		B	PLACEMENT	2			
6	CRASH CUSHIONS	A	CONDITION	1	CC on NB 52 @ exit 118 struck and needs to be repaired immediately. CC at same location not on approved TMP.		
		B	PLACEMENT	2			
7	IMPACT ATTENUATORS (Truck /Trailer Mtd)	A	CONDITION				
		B	PLACEMENT				
8	PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)	A	CONDITION	3			
		B	PLACEMENT	2	See Comments.		
		C	MESSAGE	3			
		A	CONDITION				

Work Zone Safety Reviews

Common Items

- Damaged Crash Cushions - **URGENT**



Work Zone Safety Reviews

Common Items

- Damaged/Incorrect Guardrail - **URGENT**



Work Zone Safety Reviews

Common Items

- Barrier Reflectors – Should be TOP mounted per **RSD 1261.02**



Work Zone Safety Reviews

Common Items

- Conflicting Marker Castings – Per 1250-3(c):
“Lens removal in lieu of total casting removal is not an acceptable practice for snowplowable markers”



Work Zone Safety Reviews

Common Items

- Non-Compliant Sidewalk Closures



Work Zone Safety Reviews

Common Items

- Material and Equipment Inside the Clear Zone



Work Zone Safety Reviews

Common Items

- Equipment Inside the Clear Zone



Changes to Material and Equipment Storage Specification

- Current Specification:

1101-8 MATERIAL AND EQUIPMENT STORAGE

When work is not in progress, keep all personnel, equipment, machinery, tools, construction debris, materials and supplies at least 40 feet away from active travel lanes. When vehicles, equipment and materials are protected by concrete barrier or guardrail, they shall be offset at least 5 feet from the barrier or guardrail.

Changes to Material and Equipment Storage Specification

- Revised Specification (Effective July 2021):

When work is not in progress, keep all personnel, equipment, machinery, tools, construction debris, materials and supplies away from active travel lanes that meets Table 1101-1.

TABLE 1101-1	
MATERIAL AND EQUIPMENT STORAGE FROM ACTIVE TRAVEL LANES	
Posted Speed Limit (mph)	Distance (ft)
40 or less	≥ 18
45-50	≥ 28
55	≥ 32
60 or higher	≥ 40

When vehicles, equipment and materials are protected by concrete barrier or guardrail, they shall be offset at least 5 feet from the barrier or guardrail.

Changes to Law Enforcement Provision



- Currently require Marked LE Vehicles
- Not Always Available
- Specification will be revised to allow unmarked vehicles
 - Must have Blue Light
 - Officer in Uniform
- Marked is better than Unmarked

Questions? / Comments

- Don Parker, PE, State Work Zone Engineer
- Phone: (919) 814 - 4935, Email: daparker@ncdot.gov

