



2014 Fall Asphalt Conference
October 7, 2014 | Richmond, VA
**Review of Virginia's 2013 Work Zone
Crash Statistics**

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Review of Virginia's 2013 Work Zone Crash Statistics

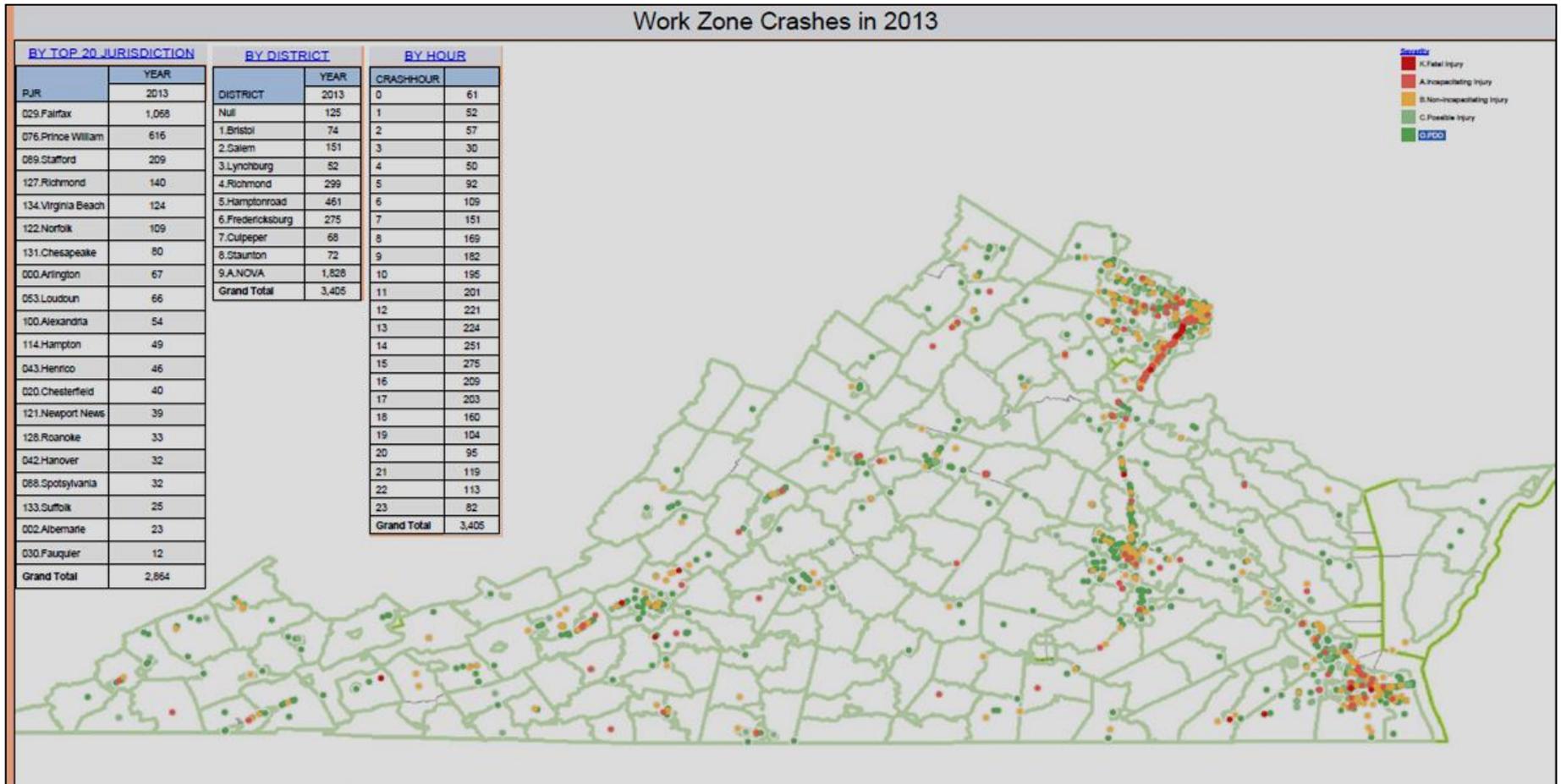
Overview

- Look at 2013 WZS Crash Statistical Information
- Findings of our 2014 WZS Team Reviews



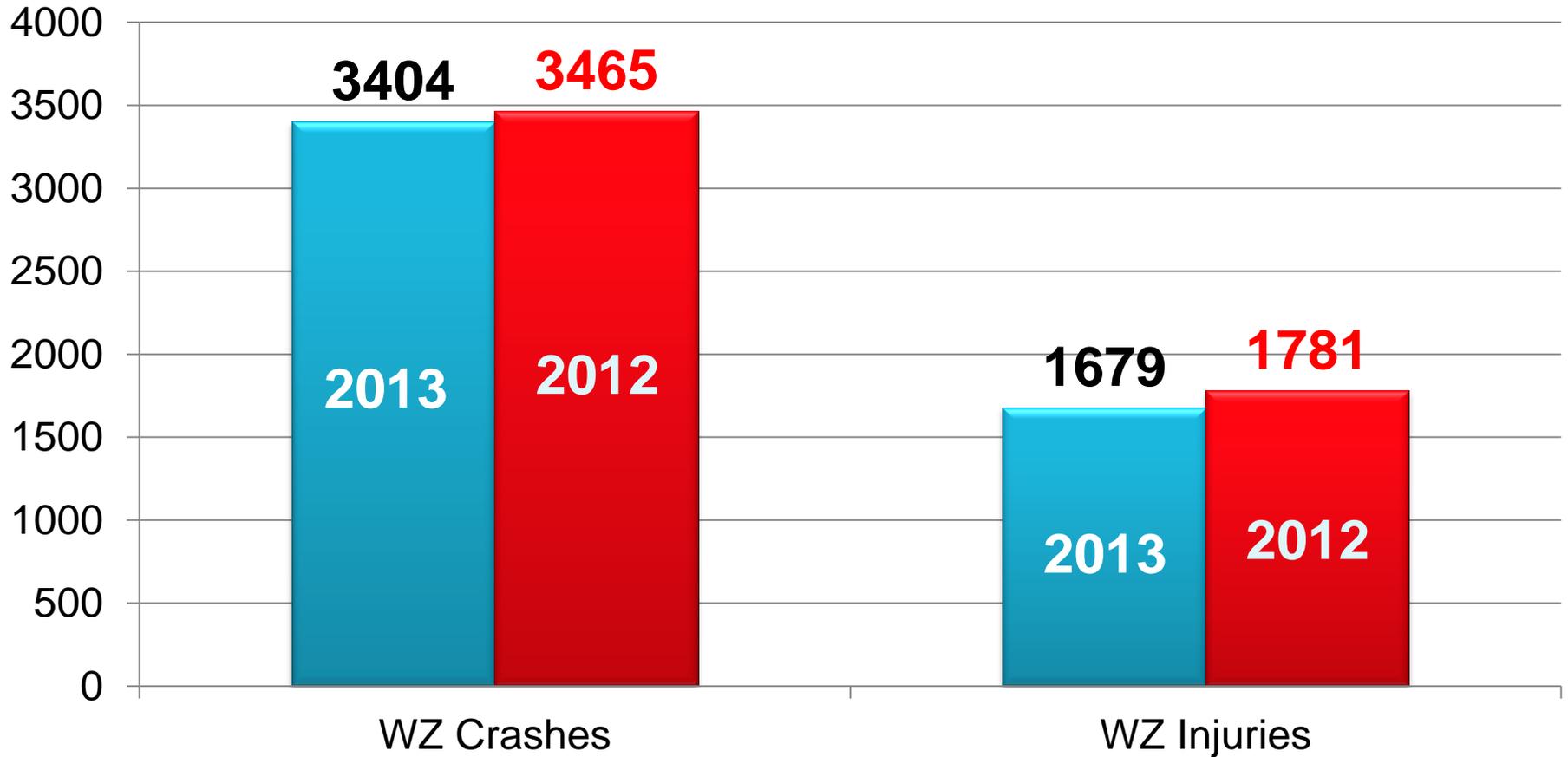
2013 Work Zone Crash Statistics

The following information helps explain what occurred in 2013 with work zone crashes statewide.

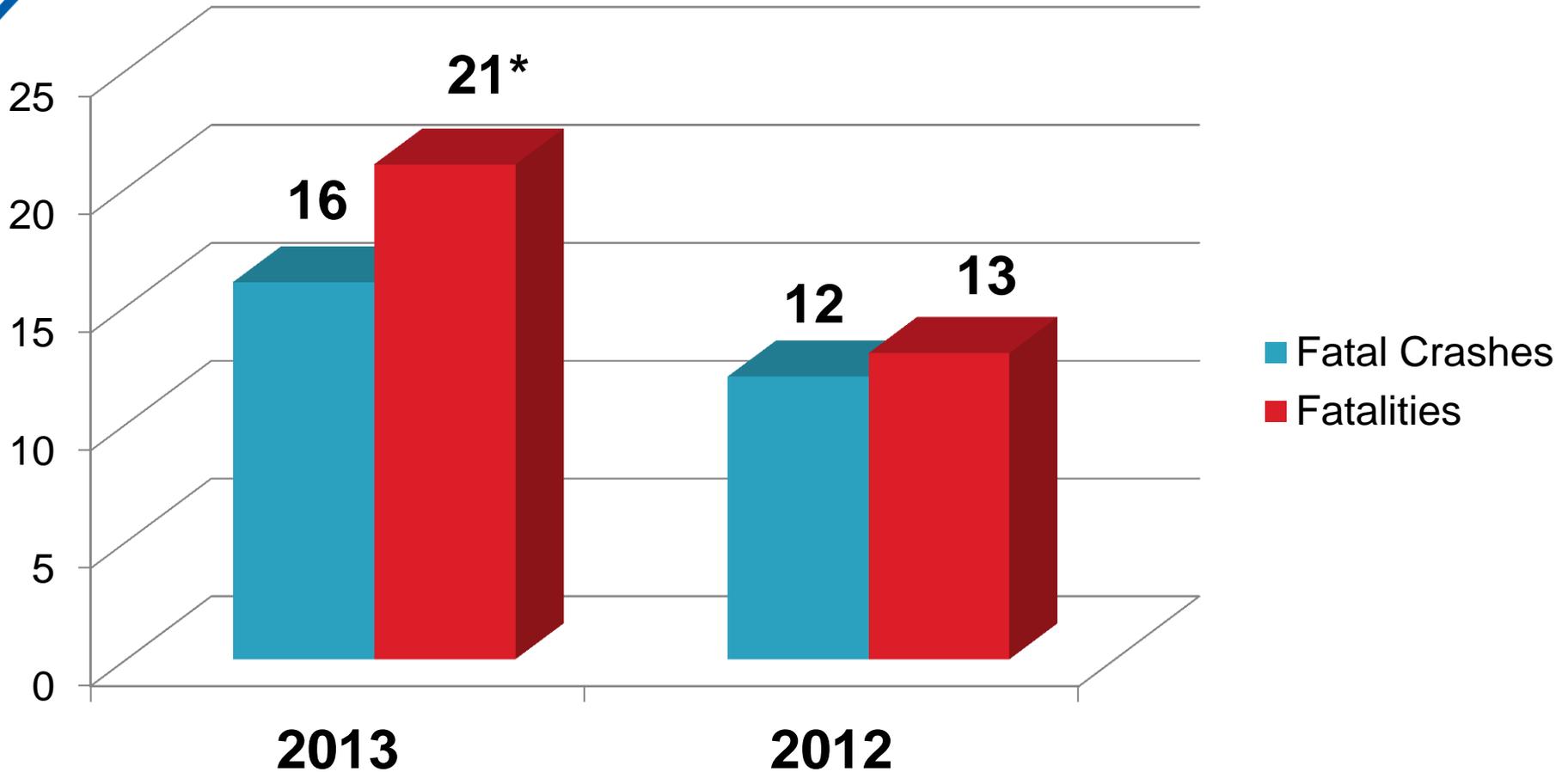


2013 Work Zone Crash Statistics

WZ Crashes and Injuries



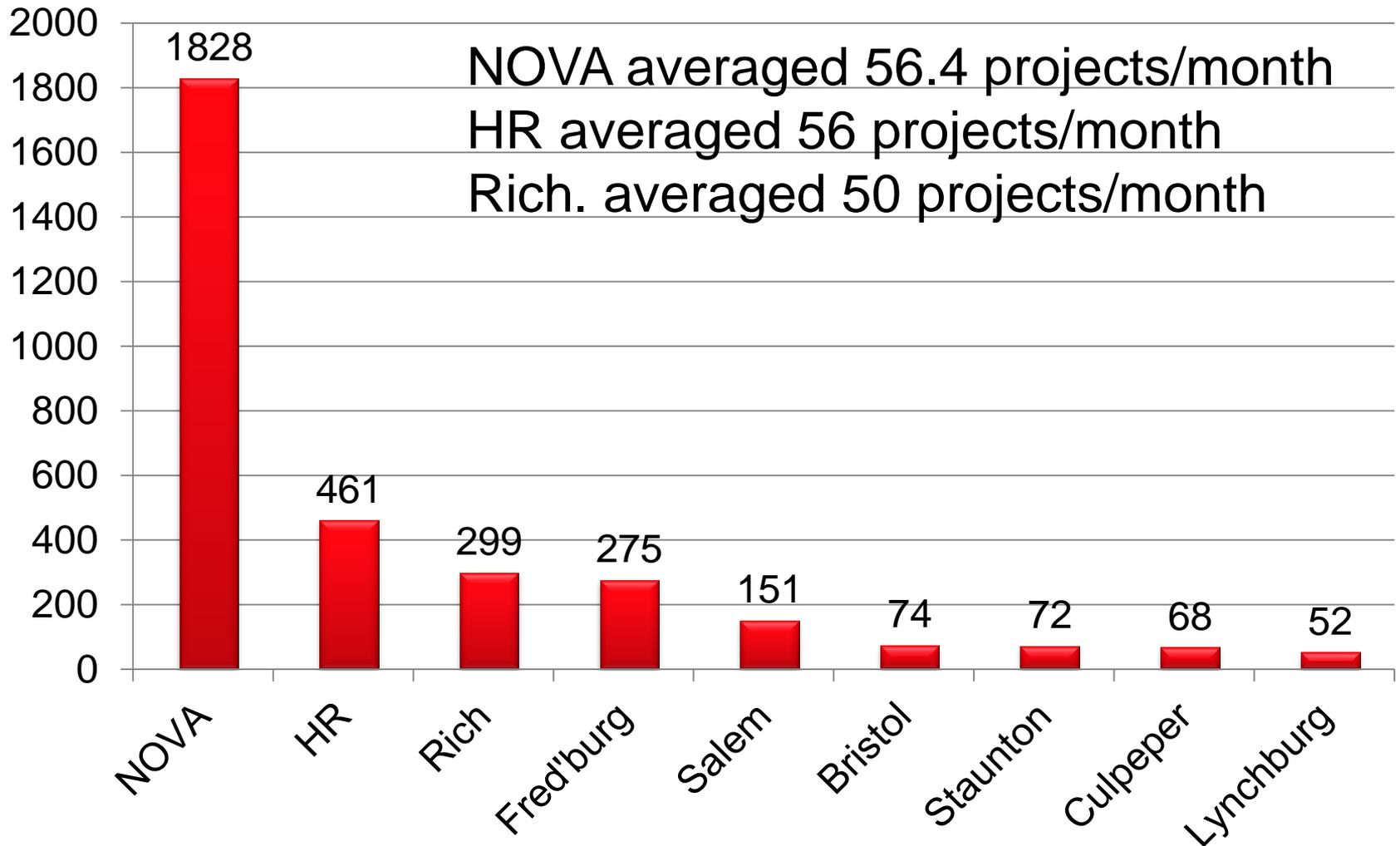
2013 Work Zone Crash Statistics



*** Includes a consultant inspector and a pavement marking contractor employee.**

2013 Work Zone Crash Statistics

Crashes by VDOT District



2013 Work Zone Crash Statistics

Of the 3404 crashes last year, **468** were single vehicle crashes while **2935** were multi-vehicle crashes.

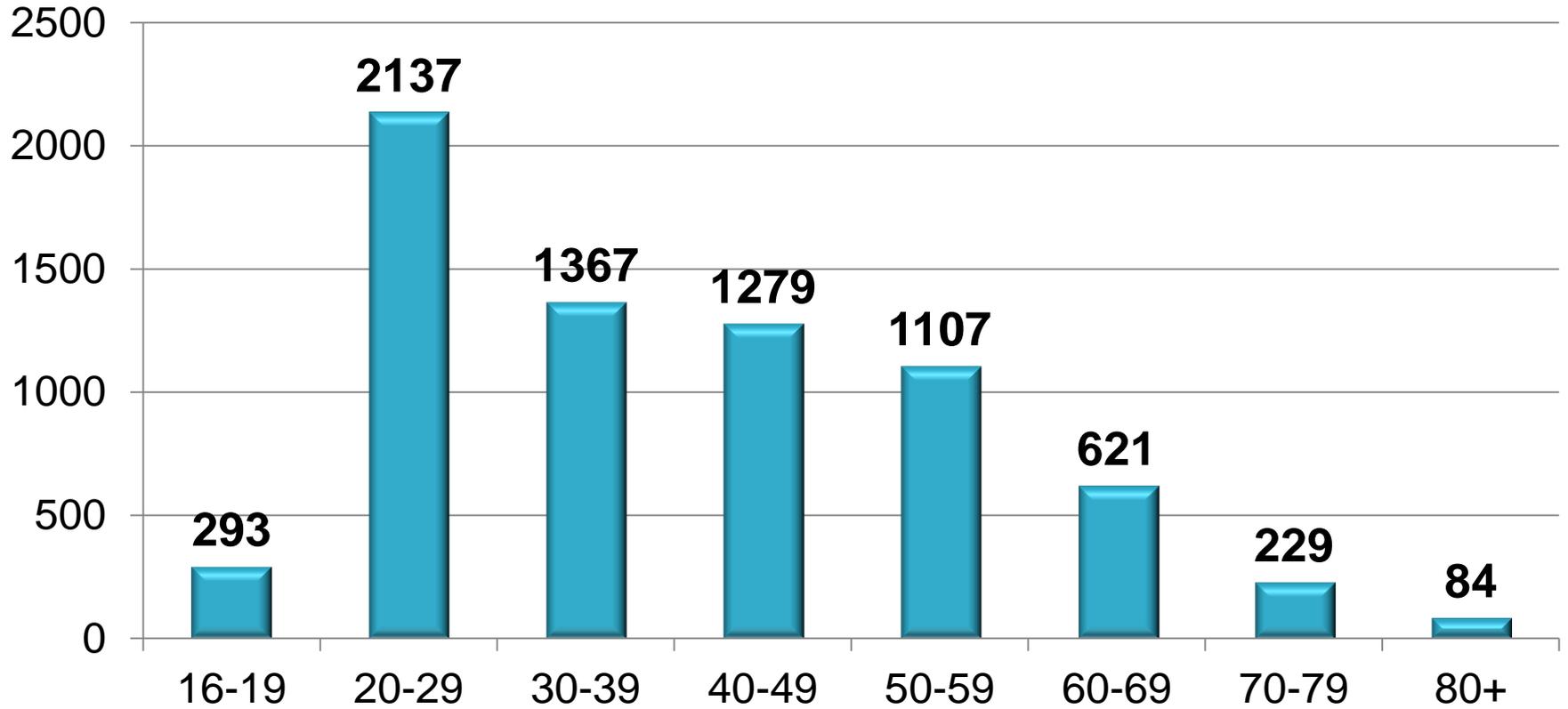
Included in these numbers were **63 motorcycle** crashes resulting in **67 injuries** and **3 fatalities**.

Combined, there were a total of **7192** motorists involved in a work zone crash in 2013.



2013 Work Zone Crash Statistics

Crashes by Age Range



Oldest driver was 91 yrs old.

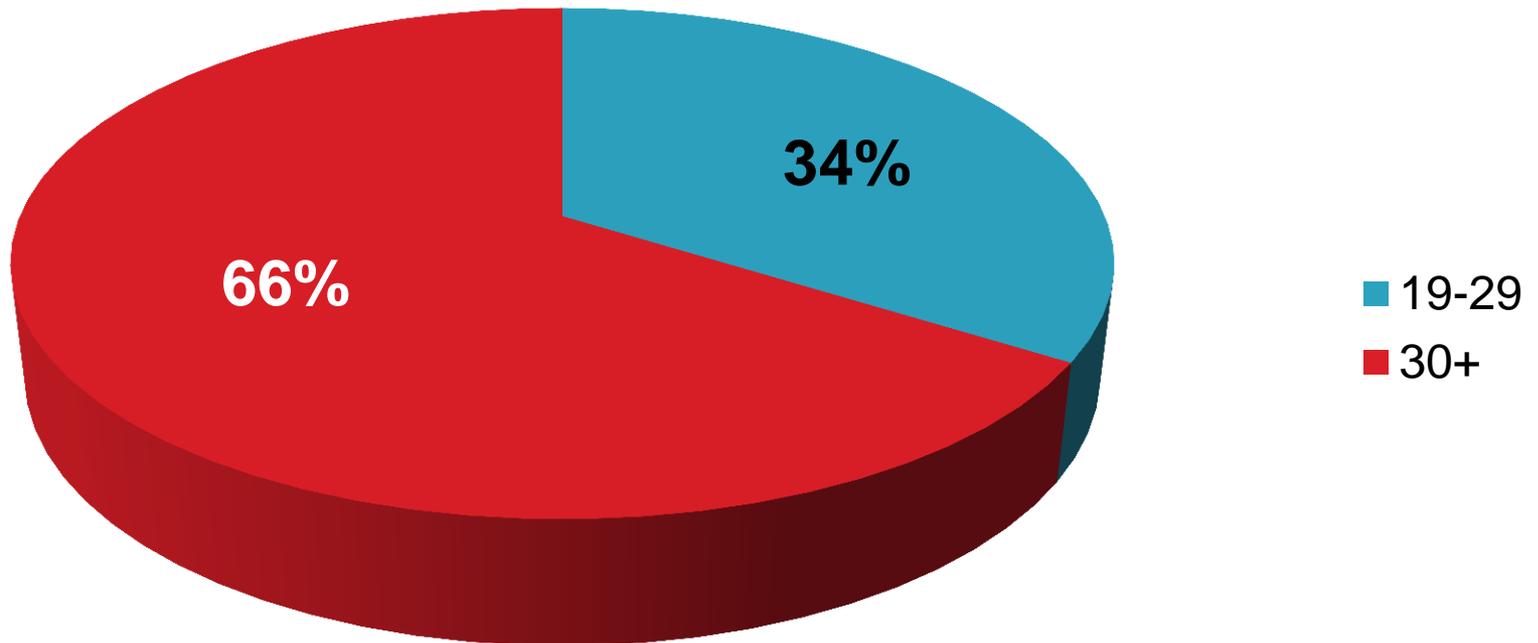
2013 Work Zone Crash Statistics

Based on a study by the University of Michigan, drivers need twice as much light to see the same object with the same clarity every 13 years after the age of 20.



2013 Work Zone Crash Statistics

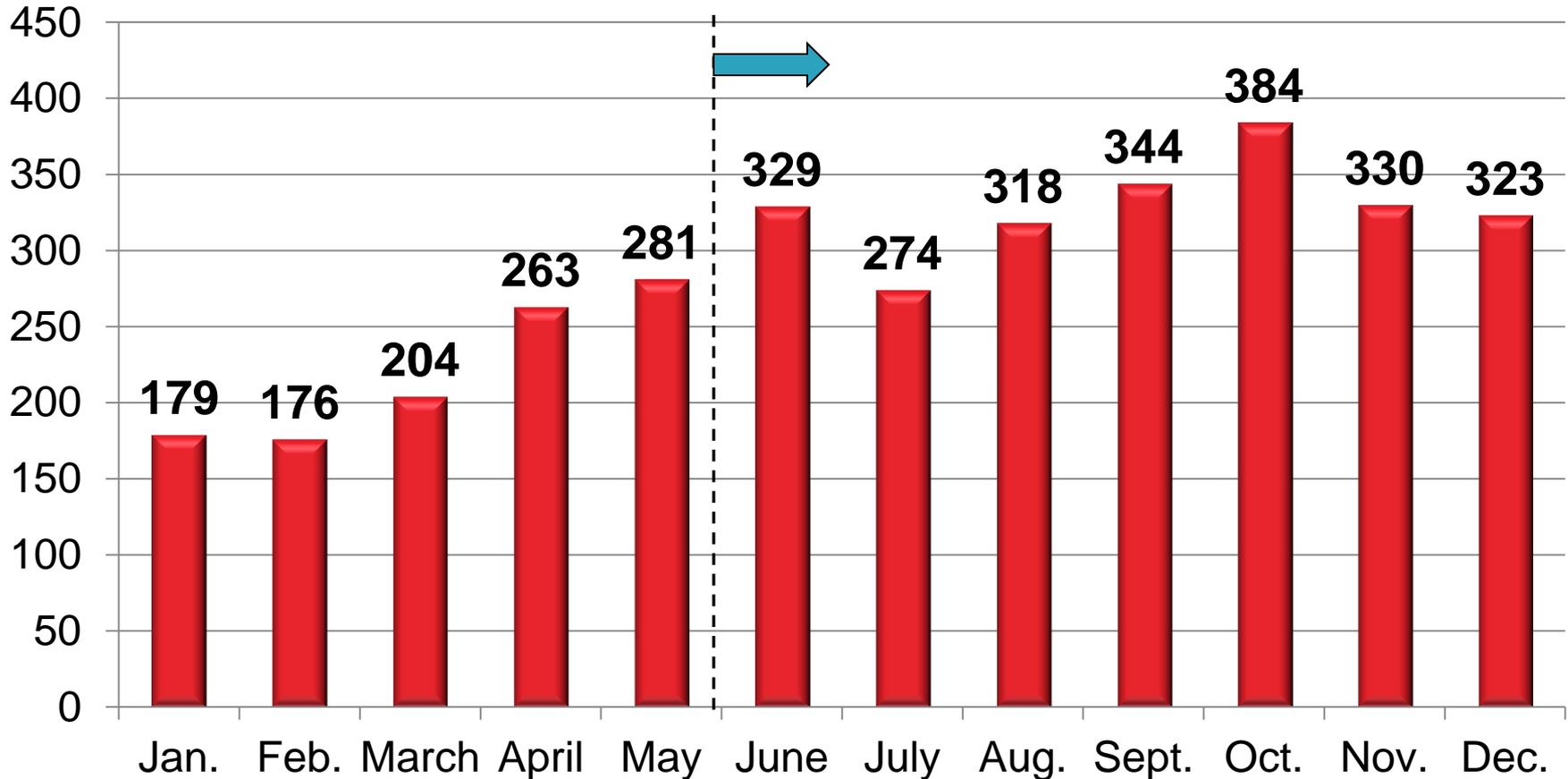
Percent by Age Group



Two thirds of the 2013 crashes were by drivers 30 years old or older.

2013 Work Zone Crash Statistics

Crashes by Month

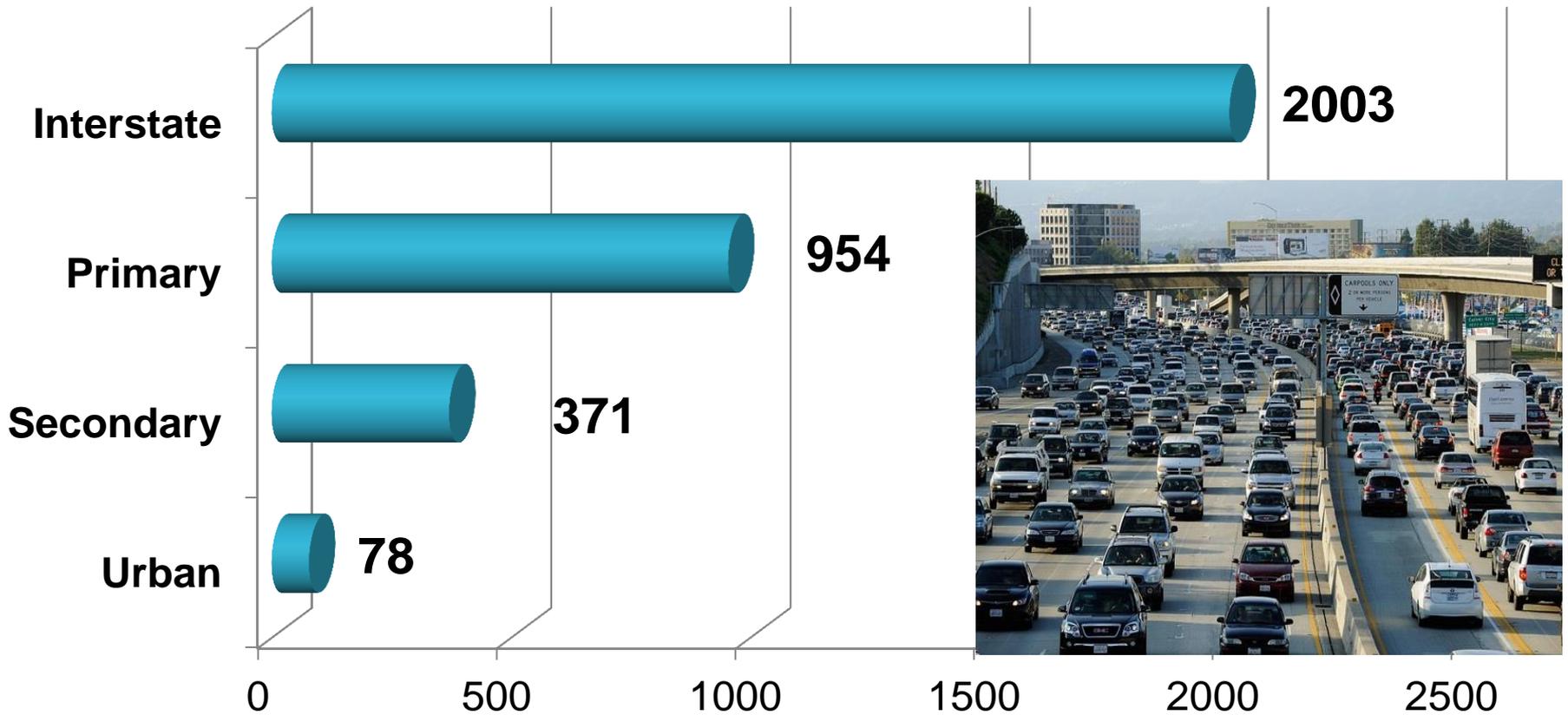


Average of 9.3 crashes per day for the year.

Nearly 11 crashes per day from June to December.

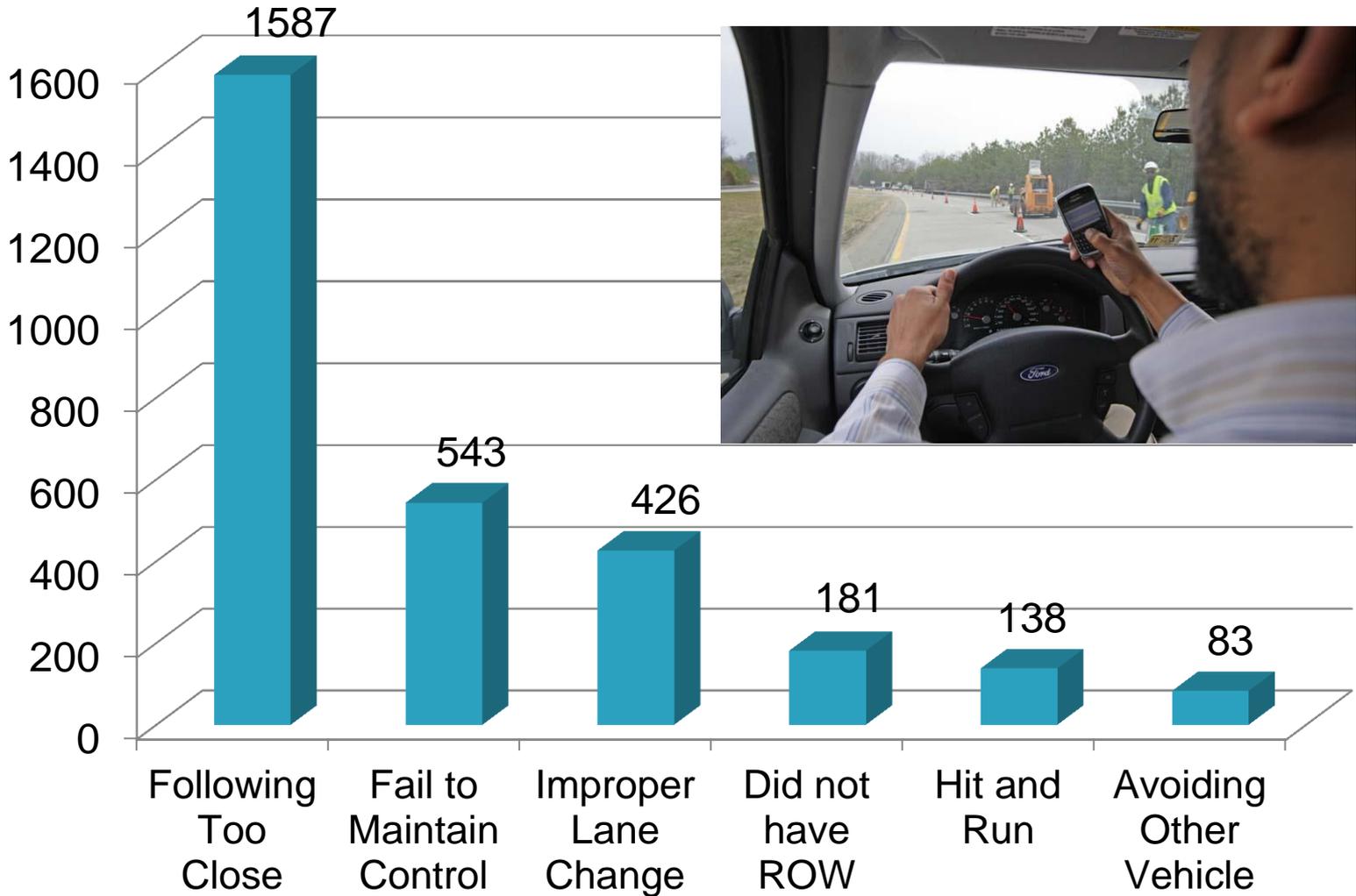
2013 Work Zone Crash Statistics

Roadway Type



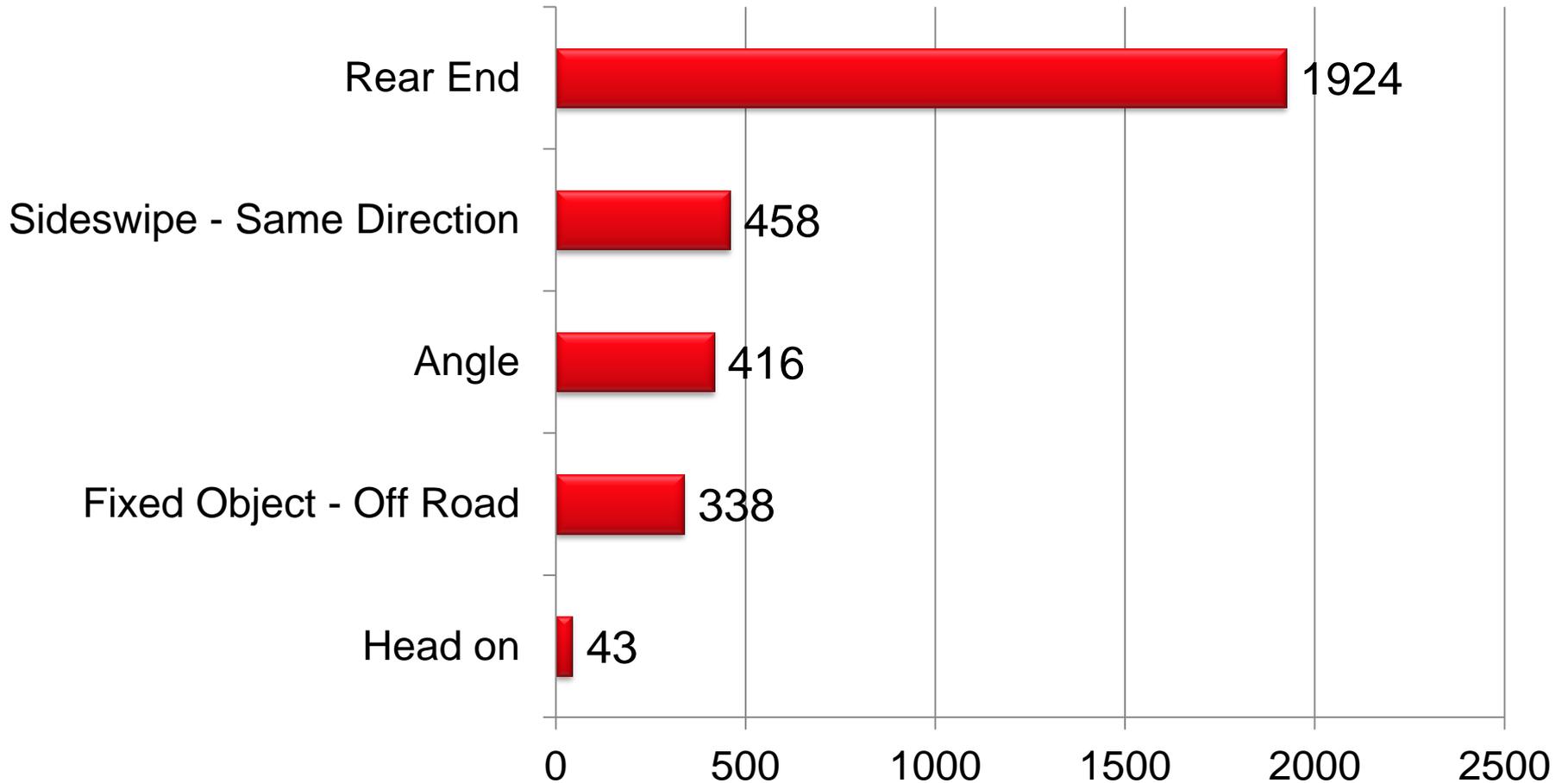
2013 Work Zone Crash Statistics

Driver Action



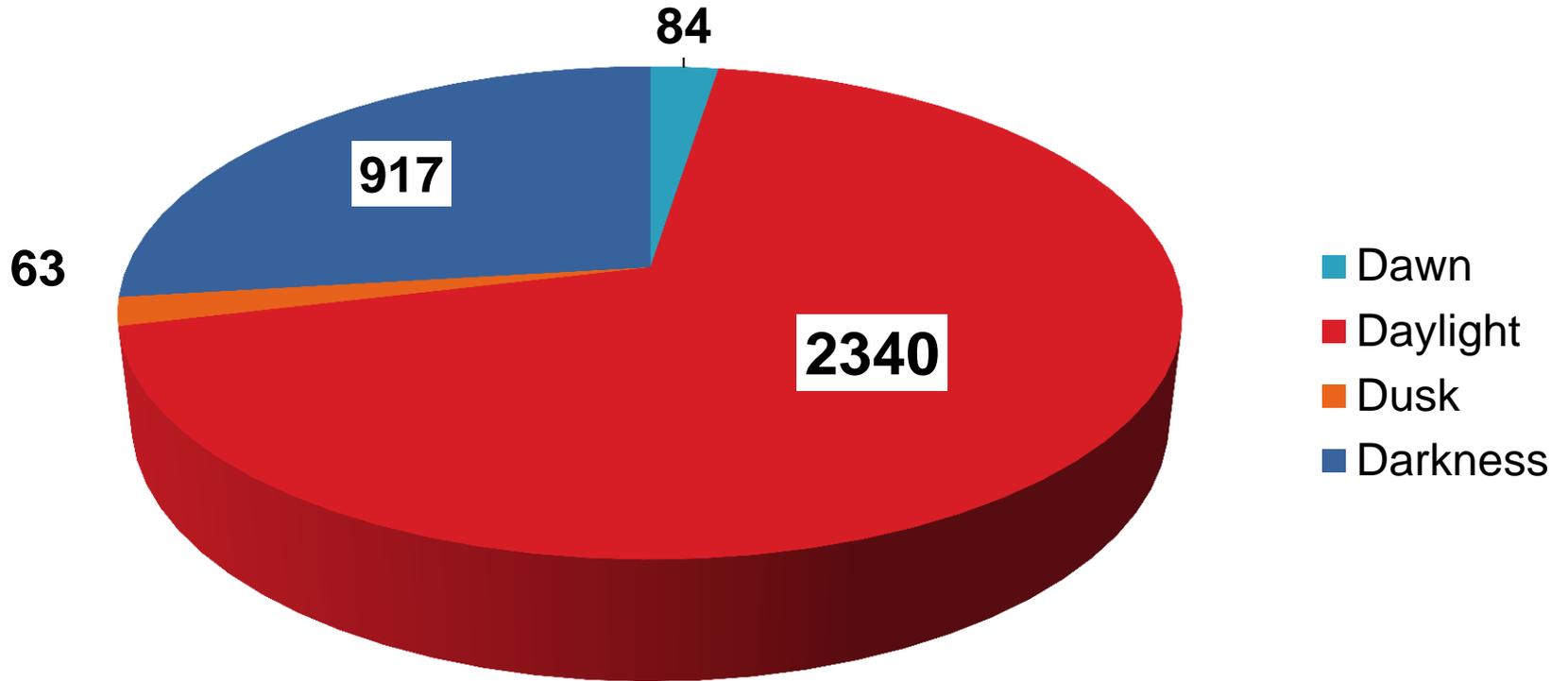
2013 Work Zone Crash Statistics

Collision Type



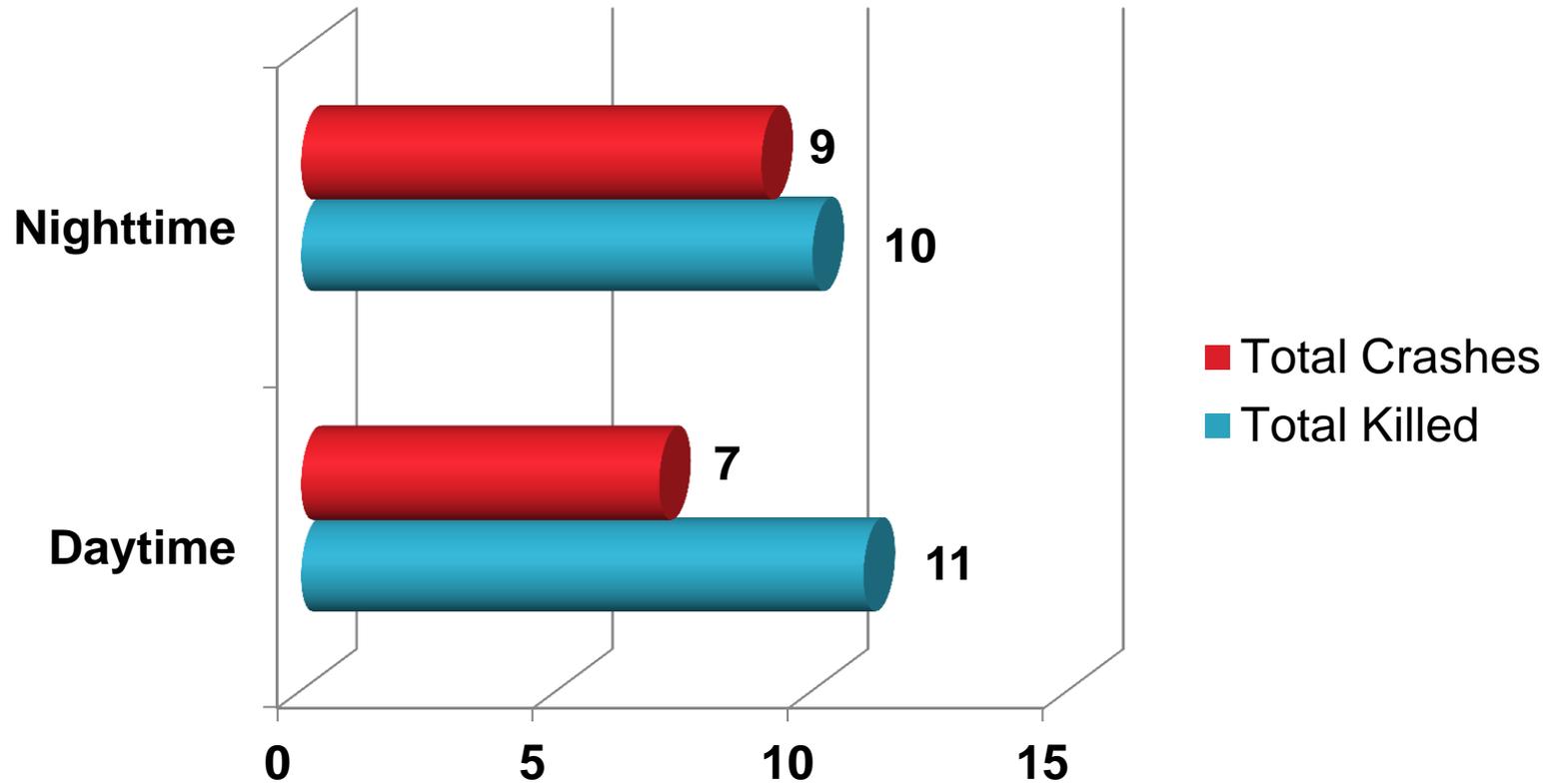
2013 Work Zone Crash Statistics

Lighting Conditions



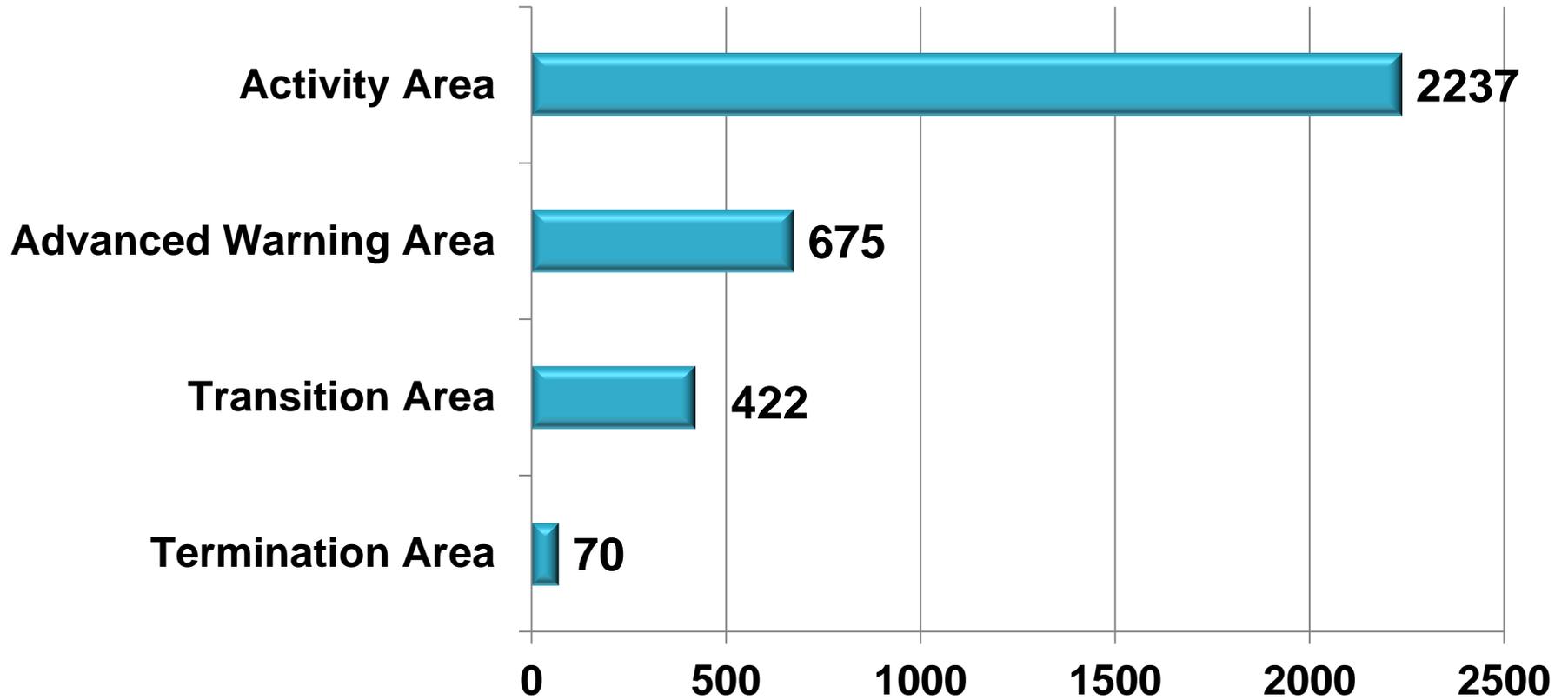
2013 Work Zone Crash Statistics

Nighttime vs. Daytime Fatal Crashes



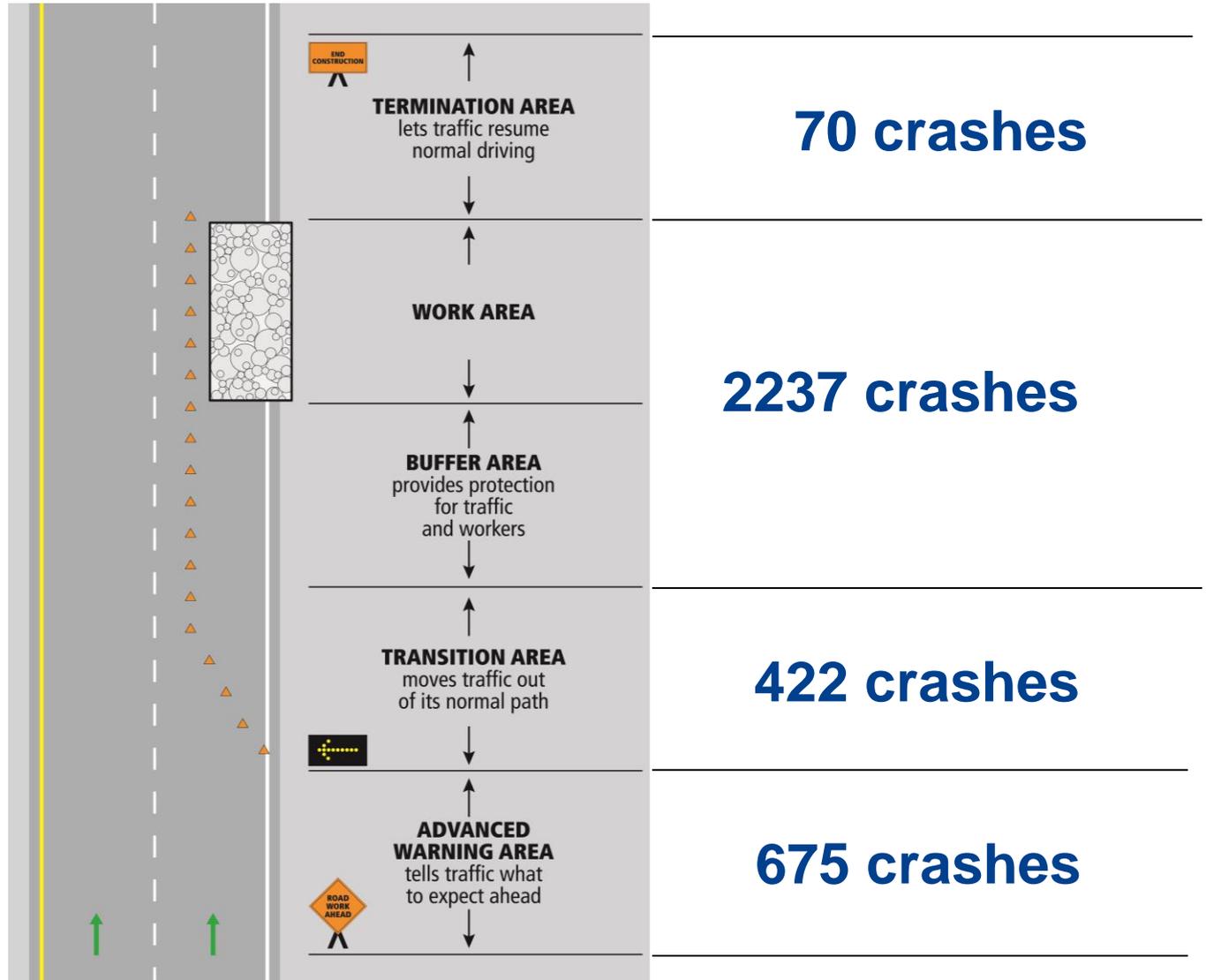
2013 Work Zone Crash Statistics

Location in the Work Zone



2013 Work Zone Crash Statistics

Location in the Work Zone



2013 Work Zone Crash Statistics

Observations

- Motorist population is getting older, harder to see objects at night.
- Distracted driving is on the increase.
- It's critical that temporary traffic control devices are visible and installed correctly to provide motorist adequate time to see and respond properly:
 - Clean w/ proper sheeting
 - Spaced appropriately and weighted
 - Monitored regularly



How's it looking in 2014?

Road worker killed while picking up construction cones

BRIAN ETHRIDGE | JULY 25, 2014

Highway worker killed when driver veers off road

BRIAN ETHRIDGE | AUGUST 8, 2014

Construction worker killed while laying asphalt

BRIAN ETHRIDGE | AUGUST 10, 2014

3 workers hit, 1 killed in highway construction zone crash

BRIAN ETHRIDGE | SEPTEMBER 23, 2014



2014 WZS Team Reviews

The following were positive findings during our review this year:

1. Proper signage for lane closures and shoulder operations
2. Effective use of PCMS and Arrow Boards
3. Adequate taper lengths and placement of tapers
4. Use of High Visibility Class 3 garments by workers
5. Positive flow of traffic through the work zones



2014 WZS Team Reviews

The following were deficiencies related to paving operations found during our review this year:

- Missing some “End of Day” signage (Bump, Uneven Lanes, Rough Road) on some operations and entrance ramps.
- Mixture of drums with improper sheeting.
- Nighttime glare from work lights.
- Maintenance of channelizing devices near exit ramps.
- Workers wearing high visibility garments improperly.



2014 WZS Team Reviews

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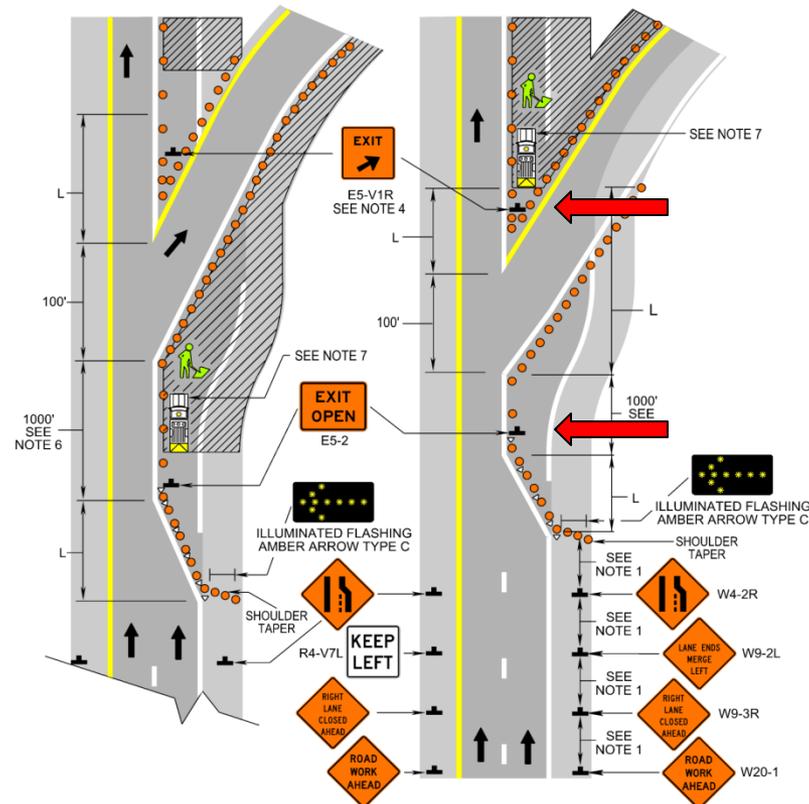
- Failure to weigh portable sign supports adequately.



2014 WZS Team Reviews

The following were deficiencies related to paving operations found during our review this year:

- Placement of EXIT OPEN and EXIT signs for exit ramps on the left side of the roadway instead of the right.



2014 WZS Team Reviews

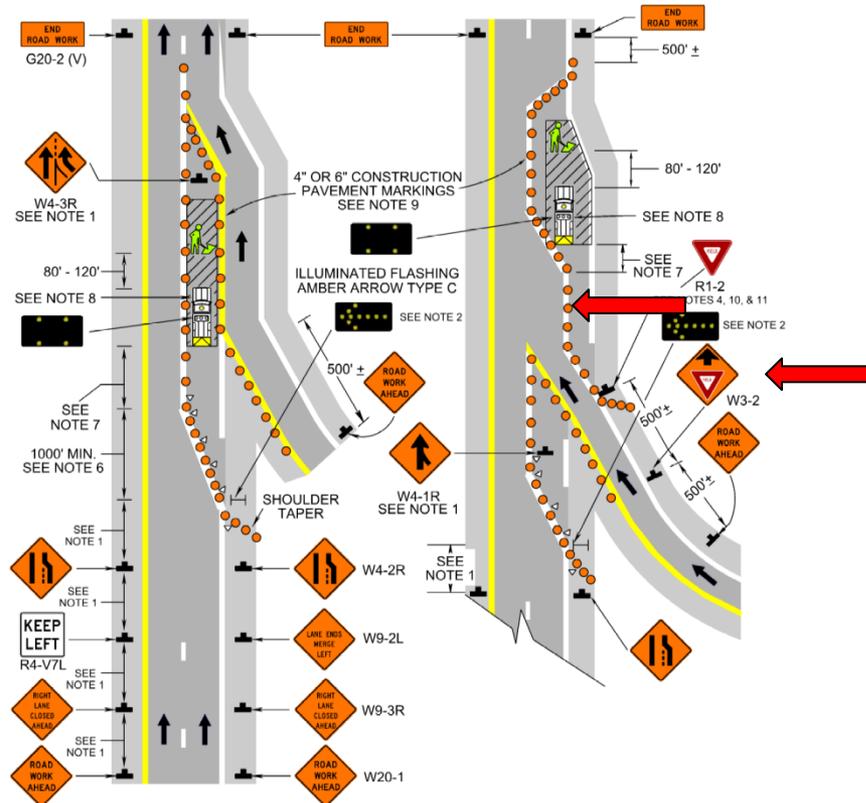
The following are some additional areas of concern expressed by some of our WZS Coordinators:

- **Channelizing devices placed into open travel lanes for the entire length of the lane closure versus moving out then back in along with the operation.**
- **Lane closures excessively longer than needed.**
- **Closing ramps too soon.**
- **Running ramp traffic across grass areas.**
- **Leaving out advanced STOP AHEAD or YIELD AHEAD signs on entrance ramps.**

2014 WZS Team Reviews

The following are some additional areas of concern expressed by some of our WZS Coordinators:

- Excluding a yield area as shown in TTC-39 (Work Operation in the Vicinity of an Entrance Ramp).



Review of Revision 1 of the WAPM

► Traffic Engineering

[Work Zone Safety](#) | [HSIP Application/Procedure update](#) | [Traffic Engineering memorandum](#) | [MUTCD and Virginia Supplement](#)

Work Zone Safety

The Virginia Department of Transportation (VDOT) is committed to maintaining the safest possible work zones.

We do this by:

- Developing highway safety policies, standards and guidelines related to work zone safety
- Providing technical guidance, best practices and advice to work zone inquiries from internal and external customers
- Interpreting federal and state regulations and requirements

The Work Zone Safety staff is responsible for developing and issuing the Virginia Work Area Protection Manual, the Work Zone Safety Guidelines for Temporary Traffic Control pocket guide, and other work zone-related material.

We also manage the VDOT Work Zone Traffic Control Training Program and the Virginia Flagger Certification program as well as coordinate [Work Zone Awareness Week](#).

NEW – Revision Draft to the 2011 Virginia Work Area Protection manual

The Traffic Engineering Division is in the process of revising the 2011 VA Work Area Protection manual and would greatly appreciate Industry review and input on the final draft **by October 30th**.

Awareness of these planned revisions is particularly important to Designers and Contractors who design, build and maintain roadways in Virginia. The revisions are based on recent changes in Part 6 to the MUTCD, as well as clarification of some items in the 2011 WAPM. In addition, additional typical traffic control layouts have been added as requested by field personnel.

The draft of the 2011 Virginia Work Area Protection manual with Revision 1 incorporated is shown [here](#). Pages with revisions are marked with "Revision 1 – 1/1/2015" date on the bottom of the page with the changes highlighted and marked by a "1" at the end of the revision. A list of the technical changes are shown [here](#).

This will be the Industry's opportunity to review and submit comments on the upcoming revisions. We prefer a consolidated response with comments submitted on the "comment form" shown [here](#) and submitted to the following e-mail address for review: TEWORKZONESAFETY@VDOT.Virginia.gov Should you forward this email to other departments or to a membership list, those comments may be sent separately by each individual recipient.



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