



Work Zone Executive Strategy Sessions



Transportation Engineering Conference

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ODOT Traffic-Roadway Engineer

Oregon Department of Transportation

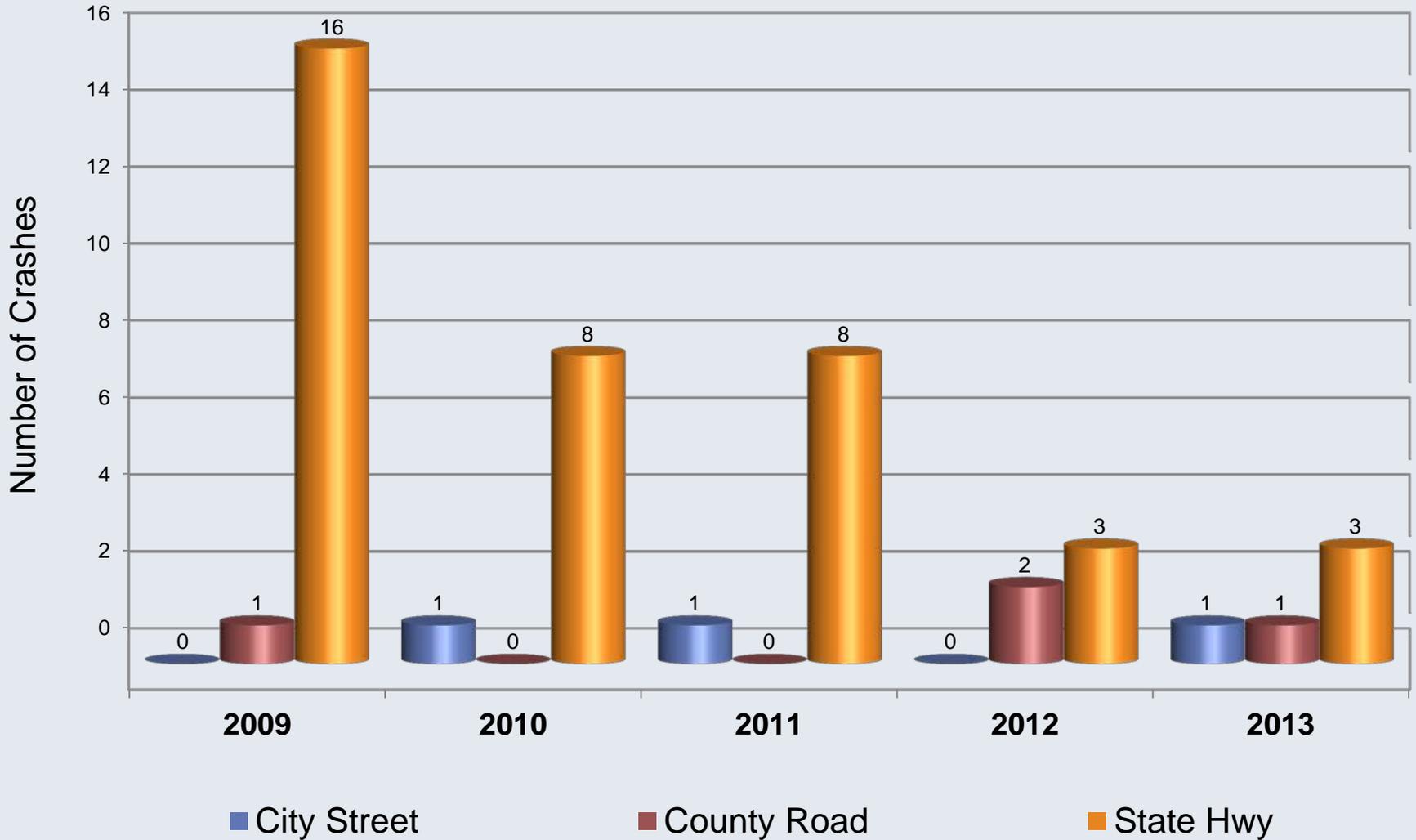
ROAD
WORK
AHEAD





Oregon Work Zone Crashes by Jurisdiction

FATAL Crashes



Work Zone Safety- Traffic crashes in WZ

- Nationally:
 - 40 % of WZ fatal crashes in transition Zone prior to work area, remainder in work area or just downstream.
 - 25% fatal crashes involve large trucks (12% on all hwys)
 - 85% fatalities are drivers and passengers, not workers
- On Oregon Highways and roads:
 - Average 251 injury crashes in WZ each year – last 5 years
 - 2013 – 5 fatal, 9 serious injury crashes in work zones
 - 2012 – 5 fatal, 17 serious injury crashes in work zones
 - 2011 – 9 fatal, 15 serious injury crashes in work zones
 - 2010 – 9 fatal, 17 serious injury crashes in work zones
- Work Zone crashes tend to be more severe than other types of crashes

Work Zone Executive Strategy Sessions

- Convened by Director Garrett
- Original members: OSP, OTA, AGC, ODOT
- Added members: Triple A; FHWA, Dr Gambatese (OSU)
- Goal – Improving safety in our Hwy work zones
- Meetings: Dec. 6, 2013; May 6, 2014; Dec. 17, 2014

Three multi-discipline Taskforces:

- Law Enforcement
- Separation and Mobility
- Engineering Enhancements

Plus a Communications component



What does "safe" mean in a work zone?

When you ask an engineer, a project manager, a contractor, a trucking industry representative and a law enforcement officer what "safe" means to them when it comes to work zones, you'd think they would all give different answers because they look at work zones from a different perspective. However, their answers are surprisingly similar in many ways. Despite their differences, they all share a vision of safety for workers and travelers.

In this second article in our series about taking a fresh look at work zone safety in Oregon, we'll examine some of the commonalities and differences of thought surrounding highway work zones in our state; this is a two-part article.

Driver behavior is a top concern

Everyone agrees that driver behavior is a top concern when it comes to work zone safety.

"We need people to be focused 100 percent on the task of driving, but that's not always the case," said Lt. James Rentz with Oregon State Police. "Our top concerns in a work zone are people driving too fast for conditions and distracted drivers."

"If we could just get people to obey the posted speed signs, things would improve tremendously," said ODOT Traffic Control Plans Standards Engineer Don Wence.

ODOT's State Maintenance Engineer Luci Moore echoes that concern. "Our employees get hit when drivers are traveling through a work zone too fast or not giving their full attention to their surroundings."

The contracting community feels the same way. "Worker safety is our No. 1 priority," said Kerry Kuenzi with K & E Excavating, an Oregon-based construction contractor. He added that keeping drivers away from workers whenever possible is ideal.

continued on page 3

Safety is the word



ODOT Director Malt Garrett

Governor Kitzhaber has once again designated May as "Transportation Safety Month." Along with our many safety partners and advocates, we're delivering our messages about being safe in work zones, riding motorcycles safely, buckling up our children in the right restraints, using safe walking and bike-riding practices and more. These messages never get old, because if they do, the consequences can be tragic.

May is also Safety Break Month, focusing on workplace safety. By mid-May, most of you will have participated in a Safety Stand Down (see related story on page 9). Because we see and hear the word "safety" over and over, we risk becoming complacent — and we cannot do that. We must remain focused and vigilant.

Safety is our No. 1 guiding value. It permeates everything we do. And it impacts how we go about delivering transportation services, infrastructure and programs for Oregonians. But if we aren't being safe or aren't feeling safe on the job, then we can't fulfill our mission.

We have set a performance goal of less than one lost-time injury per 100 employees by 2020. In 2013, we were above that, at 1.7 injuries per 100 employees. That's better than other industries with similar hazards, but we want to do better.



Communication

- Fresh look at work zone safety articles
Email blasts
Social media
Video
Multimedia ads



What's on the inside of Inside ODOT



ODOT: The Next Generation



Wireless support



Roses for DMV!

We're hearing many things...

Appointments, promotions, service awards, retirements

...and more!

LAW ENFORCEMENT TASK FORCE

- Everyone recognizes that Law Enforcement in our work zones wakes drivers up, slows them down, makes them pay attention
- Federal program provides funding for O.T. hours for Law Enforcement in the work zones, LE must provide 'match'.
- ODOT and Contractors want Law Enforcement in and around all of our work zones.

Reality:

- Not enough OSP, not enough County Sheriff or local agency LE
- Committing to O.T. hours when short handed is difficult
- OSP concerned about public perception, priority of WZ's

LAW ENFORCEMENT TASK FORCE

- Task Force meeting included numerous LE agencies along with OSP
- Issues identified:
 1. LE resources – staffing, budget – OSP and Local Agencies
 2. LE Presence in work zone
 - Alternatives to LE- photo radar, dummy cars and lights, ...
 - Role - Parked or roaming; tickets or visibility? One or more?
 3. Communication with ODOT and Contractor
 - pre-construction – input into design, TTC plans, pre-cons
 - During construction, with contractor, with ODOT PM staff
 4. Defining a work zone (fines double in work zones) – signing
 5. Prioritize work zone projects for Law Enforcement
 6. Education of traveling public

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Engineering Enhancements Task Force

- Tasked with continuing to find new engineering approaches to enhance safety
- ODOT's TTC Plans group and TTC designers – this is our everyday work – but we're being challenged to think outside what's typical.
- Recognize and emphasis that one size does not fit all situations

Interstate Pavement preservation is one of ODOT's priorities

- Recent TTC enhancements: - wake them up, slow them down, make them pay attention
 - Speed reductions – modified process
 - Additional, new Traffic Control Devices like:
 - PCMS on Compaction Rollers, Speed Reader Board on trailers
 - Unusual PCMS messages: *Workers in Roadway, Slow for Workers*

ROAD
WORK
AHEAD





ROAD
WORK
AHEAD



Engineering Enhancements Task Force

- Considering:
 - Conspicuous Construction Signs
 - Temporary Transverse Rumble Strips at Flagger Stations
 - Temporary Steel Barrier
 - Smart Work Zone Devices
 - individual messages to drivers
 - queue warning systems
 - cameras, videos, volumes, speeds
 - Positive protection, separation of workers from traffic
 - Improved Construction Sign management
 - Researching nighttime work zone lighting



R1
OR8, SW 185th
All warning signs on project



Type "04" Sign with alternating Type "04" Fluorescent Orange and Black Non-Reflective Border



R2
US101 NE Devils LK RD
All warning signs on project

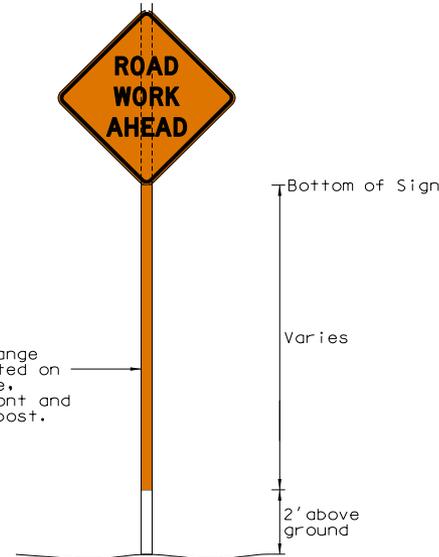
Type "04" Sign with alternating Type "Y5" Fluorescent Yellow and Black Non-Reflective Border

R3
OR62-OR140
Road Work Ahead signs

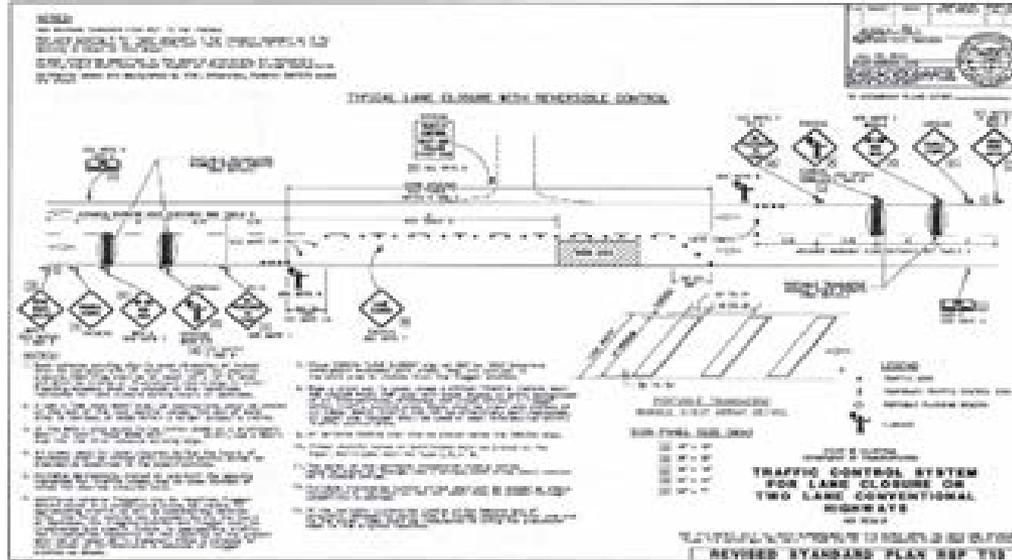


Type "04" Sign with Type "Y5" Fluorescent Yellow Border

R4
US20 Sheep Cr Br.
Road Work Ahead signs



Temp Transverse Rumble Strips at Flagger Stations



Each end: Five signs, (6) ten foot long rumble strips (two sets of three strips)

ROAD WORK AHEAD sign

RUMBLE STRIPS sign

ONE LANE ROAD AHEAD sign and 3 rumble strips

FLAGGER symbol sign and 3 more rumble strips

BE PREPARED TO STOP sign.



WHAT IS ZONEGUARD®?

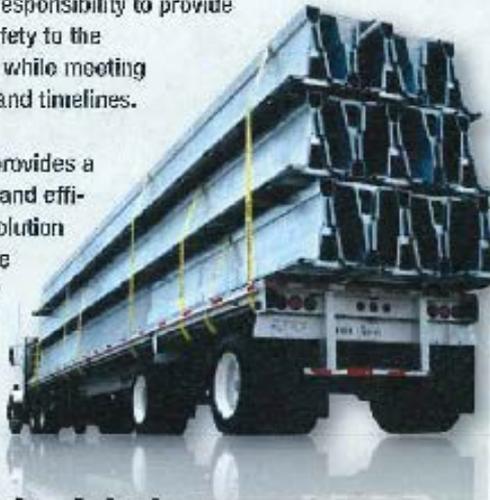
Since its introduction to the highway safety industry in 2008, the Zoneguard® steel barrier system has become the most widely used temporary steel barrier in the country, and its many safety and money-saving benefits have been realized by DOT's and contractors throughout the US.

Designed to protect highway travelers, as well as road and construction crews, Zoneguard® offers the maximum safety requirements, as it meets NCHRP 350 and MASH crash test standards.

Temporary concrete barrier systems are costly, heavy to transport and handle, time-consuming and do not provide the energy-absorbing capabilities of Zoneguard®.

Today's contractors, engineers and DOT's have a responsibility to provide the upmost safety to the driving public, while meeting tight budgets and timelines.

Zoneguard® provides a cost-effective and efficient barrier solution and is available nationwide for rent or purchase.



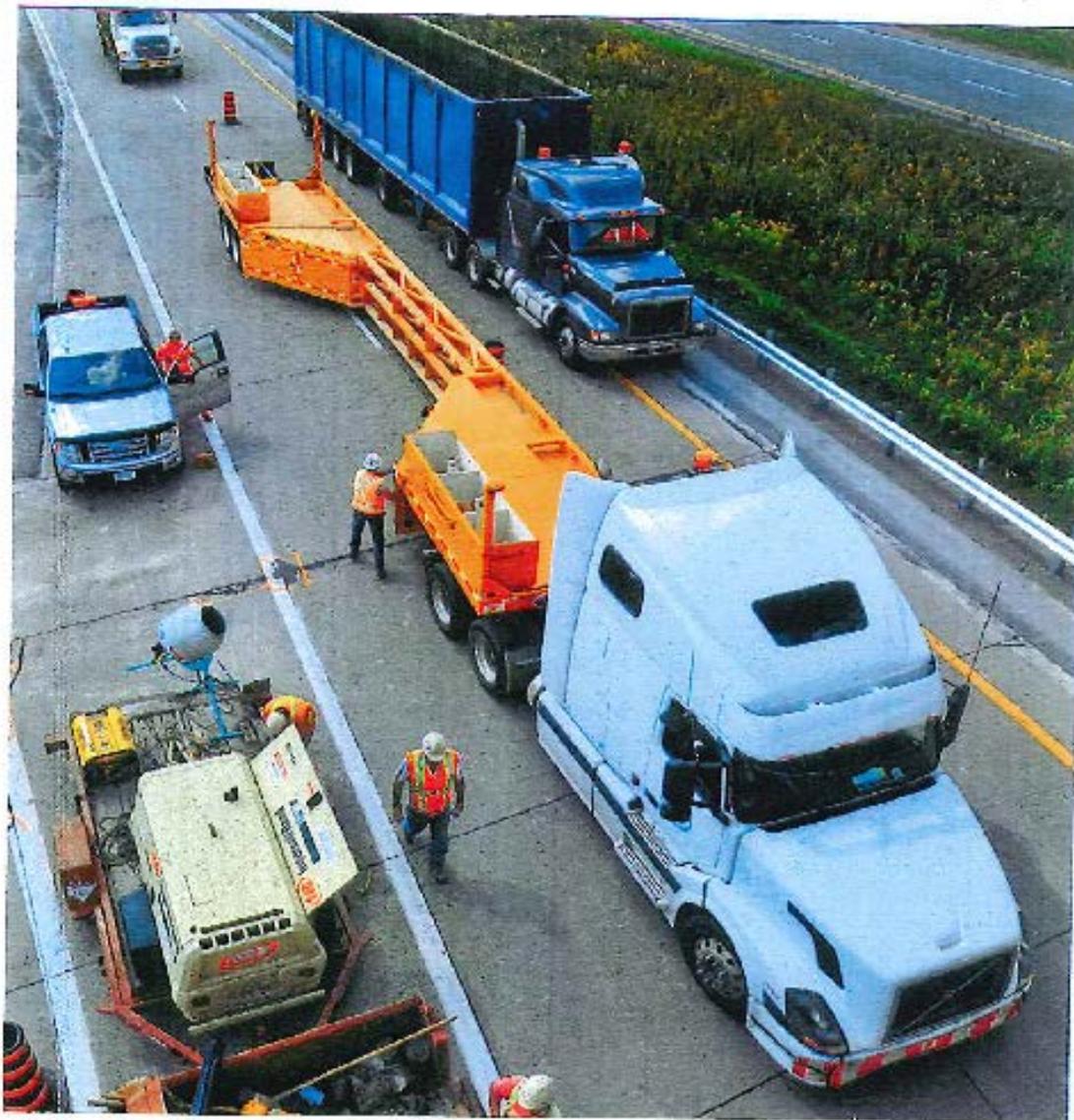
www.hshighway.com





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Work Zone Executive Strategy Sessions

Separation and Mobility Taskforce

- Mobility Procedures Manual – came out in 2005 with the increased road and bridge work with OTIA III. Updated Manual released dated April 2013.
- Mobility: *“Ease with which people and goods move throughout their community, state and the world. Transportations most important function is to provide safe mobility for people and goods.”*
- *“Ensuring mobility involves minimizing delays due to construction and maintenance work, and also involves minimizing physical restrictions (such as weight, height, and width).*
- *“ODOT’s message on mobility has been clear - ... the goal will be to maintain mobility and keep traffic and freight moving.”*
- *Mobility is top priority through work zones?*

Separation and Mobility Taskforce

Co-Chairs: Bob Russell (OTA) and Brian Gray (AGC)

- Develop Guiding Principle that emphasizes balance between mobility and worker safety in construction zones. Use to set ‘tone’ and ‘culture’
 - PD-16 Highway Mobility (5/2014) includes as an “Expectation”:
 - *Regions are expected to evaluate all construction projects for mobility and review options carefully ... to minimize the duration and severity of freight restrictions and traffic delays.*
 - Add a similar expectation both in PD-16, MPM and in design manuals that requires project teams to evaluate all construction projects for opportunities to separate workers from live traffic.
 - assure that we look for opportunities and evaluate separation options and their impact to project cost and schedules.

Separation and Mobility Taskforce

- Develop “Decision Tree” for use during design phase to promote use of positive separation.
 - Look at options for complete closures, detours, freeway crossovers, hard barriers, longer work windows each shift
 - Think of matrix of options and the associated project impacts.
 - Each project can be different, decisions will have to be unique to project situation.
- Include Construction Industry representative on ODOT’s Mobility Committee
 - Impact on worker safety
 - Maximize work windows, minimize worker exposure to traffic

Separation and Mobility Taskforce

- Actively investigate all types of positive separation devices such as mobile barrier systems, mobile cable barriers, truck mounted attenuators, ...
 - Steel barrier; WZ Intrusion systems; Truck mounted attenuators
 - Nighttime lighting systems, lighted signs, conspicuous signs, ...
- Communicate the message; teamwork between stakeholders, working in unison for work zone safety, equal importance of mobility and worker safety.
 - Bob Russell jointed Brian Gray at Statewide PM – Mobility and Separation, equal importance.
 - Annual AGC/ODOT Conference – same message
 - Modify Mobility Manual, Traffic Control Plans Manual to stress importance of both.

WZ Executive Strategy Sessions

Oregon State U. Virtual Jobsite Safety Lab Gets \$1-Million Industry Boost

04/21/2015

By Debra K. Rubin

Text size: **A** [A](#)



Oregon State University is boosting its research efforts in construction and transportation safety with a \$1-million industry grant, announced on April 14, that will fund a state-of-the-art laboratory, featuring technology to create virtual jobsites. Making the contribution to the planned lab in the school's College of Engineering are construction-materials firm Knife River Corp. and its sister firm, MDU. It will evaluate driver and worker actions as vehicles pass through a work zone.

