

ODOT Maintenance Work Zone Task Force

Doug Curro

Work Zone Safety Coordinator





WELCOME
TO
OREGON

What is ODOT's Work Zone Task Force?

The Work Zone Task Force was created by ODOT's Office of Employee Safety to mitigate risk, identify opportunities to protect workers and improve employee safety. Our task force is a statewide effort that includes Maintenance Managers, PIO's, Safety Specialists, District Management, Engineers, DMV staff, government relations, and the SAIF Corporation.



Why does ODOT have a Work Zone Task Force?

In 2022 ODOT employees participated in an Employee Engagement Survey that identified work zone safety as a primary concern that needs to be improved. This plan covers the latest in work zone technology that is available to increase driver awareness, minimize traffic exposure, injury prevention, close call prevention and most important save lives.

Automated Flagger Assistance Devices (AFAD)





What are the good things about AFAD's?

- Easy and fast to deploy
- Reduces employees to traffic exposure and hot weather.
- Simple to operate.
- 1 flagger can control 2 AFAD's with a good line of sight.
- Operator training is quick and simple.

What are the downsides to AFAD's?

- AFAD's are very top heavy and have rolled over while being towed.
- Maintenance crews have reported on numerous occasions that some motorists drive around the AFAD when the crossarm is down and light is red.
- Some crews carry extra crossarms to the AFAD's because motorists are failing to acknowledge the AFAD and tearing the crossarms off.
- Several crews suggest that motorists are lacking education in AFAD compliance.



Fun Fact

- Missouri DOT found that vehicles approach 4.2 mph slower and stop 11.4 ft. further back in AFAD-equipped work zones. The study also discovered 78% of drivers prefer AFADs over human flaggers.



PROTECT WORKERS

GIVE WORKERS
EXTRA ROOM

SLOW DOWN AS
YOU APPROACH
WORKERS

**BE PREPARED
TO STOP**

OUR ROADS
SAFETY
Partnership for Responsible Driving
www.ShareTheRoadSafely.gov



Temporary Rumble Strips

A moveable device that is installed on the roadway surface to attract the driver's attention to upcoming roadway conditions by vibrating the vehicle when the vehicle travels over the rumble strip.

What are the advantages to Portable Rumble Strips?



Reduction in crashes.



Deployment has proven to slow traffic down when approaching a work zone.



Effective in reducing distracted driving.



Easy to deploy and remove from a roadway.



One crew reported that strips are very effective at slowing traffic down prior to a curve.

What are the disadvantages?



- Rumble strips weigh 110lbs and need to be team lifted.
- Some crews have reported that rumble strips can move or shift when driven over.
- Crews report that rumble strips take up too much room in vehicles (RoadQuake does offer a crib that can be installed into a receiver style hitch for better ergonomics and faster deployment).
- Some motorists drive into oncoming lanes to avoid driving over rumble strips.
- Some crews report that having to use them slows down their work.

Truck Mounted Attenuators





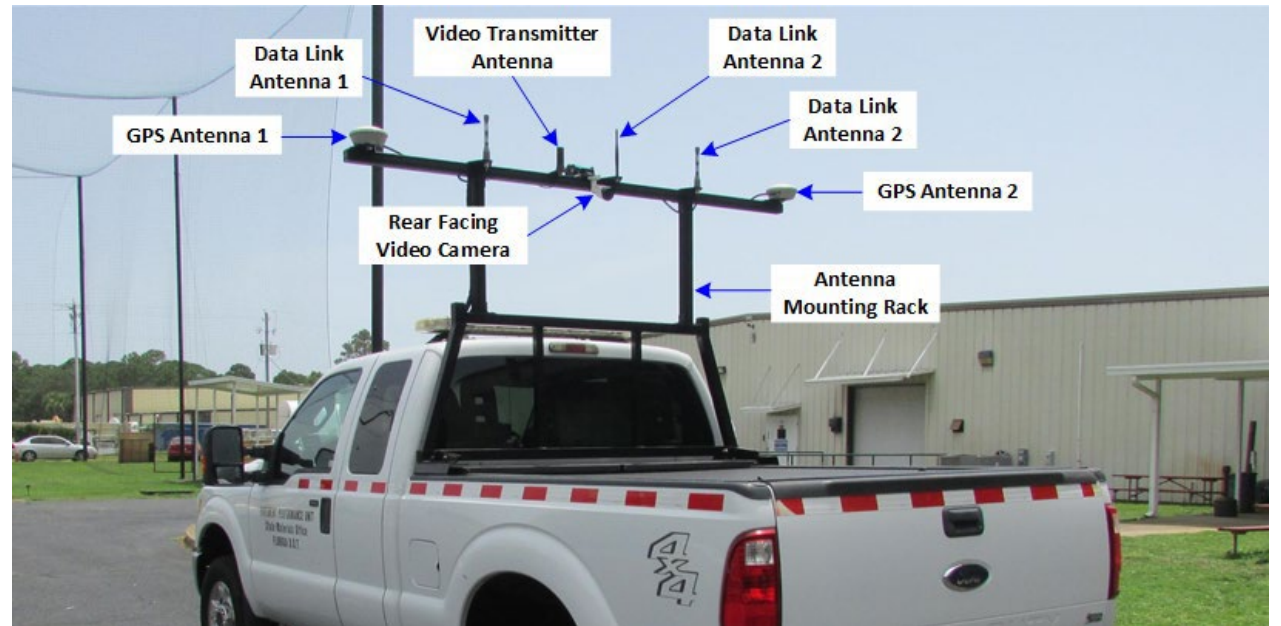
KRATOS
READY FOR WHAT'S NEXT™

Autonomous Truck Mounted Attenuator

- The ATMA (Autonomous Truck Mounted Attenuator) is a self-driving TMA truck that operates completely driverless.

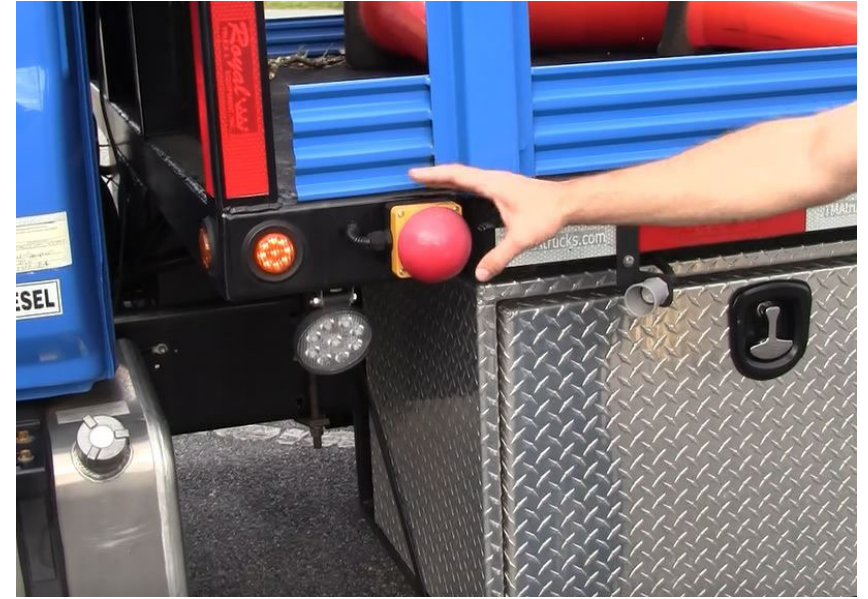
How does the ATMA work?

- ATMA's operate on a GPS system with numerous sensors, cameras, and transmitters that work in tandem with a follow vehicle that is also equipped with electronics that link the 2 vehicles together.
- Lead vehicle has 1 driver and 1 person operating the ATMA.
- The lead vehicle can also adjust the ATMA's following distance accordingly to compensate for hills, and curves.



What are the advantages of an ATMA?

- Fewer injuries and liability claims.
- Less traffic exposure to roadway personnel.
- For safety reasons the ATMA will not operate in reverse.
- Trucks are equipped with numerous emergency stop buttons inside, outside and remotely.
- Vehicle is designed to detect pedestrians, errant vehicles, or any hazards on the roadway.

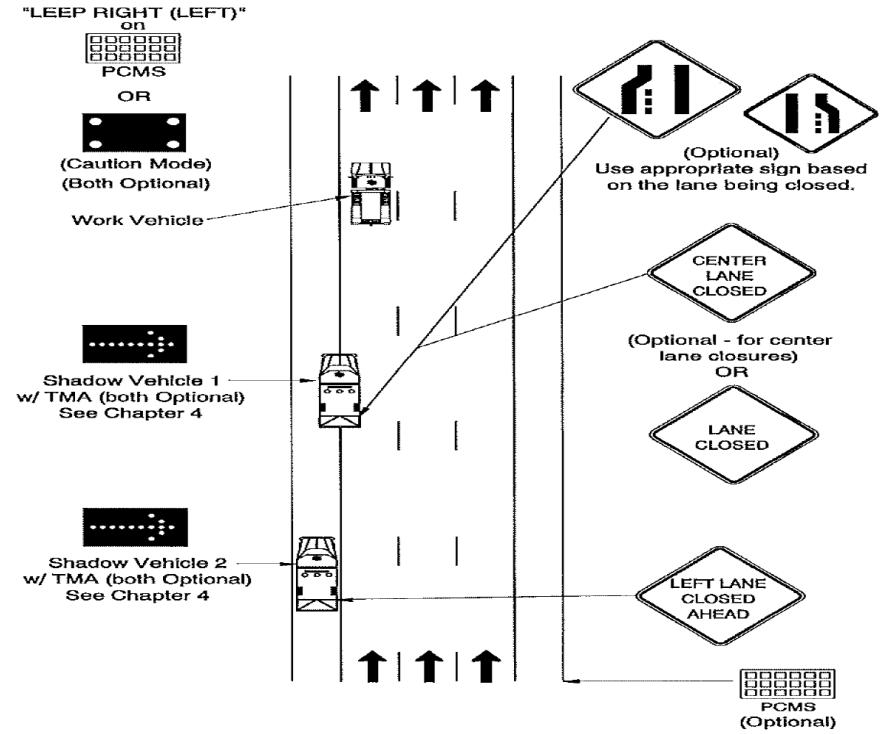


What are the disadvantages to ATMA's?

- System is not designed to operate in roundabouts.
- ATMA can not make a U-Turn
- Electronic system requires regular software updates.
- ATMA's take extensive ongoing training and most commonly a crew member should be dedicated to understanding the vehicle, components, adjustments, and software updates.



Mobile Operations on Multi-Lane Roads **Diagram 130**



Who's using
ATMA's?





Enforcement

Oregon DOT crews report that the biggest thing lacking in Work Zone safety is enforcement.

Reality Check

Rose Parade 2023
I-5 SB at
Convention Center
and Rose Quarter
Exit



Enforcement Solutions

- ODOT budgets \$250K a year that is dedicated solely to law enforcement coverage in ODOT maintenance work zones.
- Speed Safety Cameras (SSC)/Photo Enforcement are being dedicated to work zones in Pennsylvania, Maryland, and Washington.



Fun Fact

In Pennsylvania, any motorist caught driving 11 MPH or over above the posted speed limit in an active work zone, or who are involved in a crash in an active work zone and are convicted for failing to drive at a safe speed, automatically will lose their license for 15 days.



Questions?

