



## DIY (drive-it-yourself) Barricade

Mobile Barrier Trailer helps keep workers safe and traffic flowing

By Tina Grady Barbaccia

**T**he North Texas Tollway Authority (NTTA) has found a way of minimizing traffic disruption and maximizing worker safety in short-duration, rapid-work zones, says J.C. Wood, NTTA's director of maintenance.

The solution is an integrated, rigid-wall trailer pulled into place by a standard semi-tractor.

Looking much like an 18-wheeler's flatbed trailer, it is hooked to a semi-tractor and can be driven down the road and parked in place to operate as a rigid, strong, one-piece work zone barrier, functioning in much the same way as a concrete barrier, says Wood.

Branded as MBT-1 (Mobile Barrier Trailer), the barrier is made by Golden, Colo.-based Mobile Barriers. It has been crash-tested and accepted by the Federal Highway Administration (FHWA) for use on the National Highway System under both NCHRP350 and the new MASH Standards at both TL-2 and TL-3 levels. The barriers configure from 42 feet to more than 100 feet, and can be set up to protect to the right or left side of the road. NTTA's mobile barrier trailers use onboard generators and onboard lights for night work.

Typically, when work zones are created, a truck delivers barrels and cones, hand-placed to set the boundaries of the worksite. But barrels and cones are no match for an errant driver.

The mobile barrier is essentially a steel beam that walls off the work area. The barrier delivers NTTA another advantage. It can be set up, and later removed, quickly, helping to minimize traffic disruption. "The overall time that you are in the road is reduced," Wood points out. "It speeds up the process."

Wood says one of the best testimonials to the barrier's effectiveness is how willing NTTA's employees are to use it. "They don't want to go in and work on the road without this piece

of equipment," he adds. "It's a very scary thing to be out in the work zone if the only thing separating you between motorists going 70 miles per hour and the work zone is a cone or barrel."

"If any activity is going to occur in the roadway itself or on the shoulder, protection is needed," says Wood. "All of our facilities have high-traffic volume. We have about 80,000 cars per day. All of our facilities are six-lane with very, very high-speed traffic. It's an urban area so right-of-way is pretty constrained, making it a hazardous place to work. We want to make it safe for the employees — we have a goal of 'no boots on the pavements' unless they are behind positive protection."

The barriers also have a positive effect on safety through their appearance, and can help speed up work because workers are less worried by passing traffic. They are bright orange,



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The Mobile Barrier Trailer configures from 42 feet to more than 100 feet in length.

and often referred to by NTTA employees as ‘big orange pumpkins,’ says Mark Bloschock, a retired Texas DOT employee who is now vice president of Plano, Texas-based VRX, a consulting firm that is currently working with NTTA. “The first priority in any work zone is safety – to protect against an errant vehicle,” explains Bloschock. “The second priority is to minimize traffic disruptions by creating a fast work zone or a very short duration work zone. The offshoot of all this is worker safety and productivity.”

Bloschock gives the example of how mobile barrier trailers can assist in minimal traffic disruption with a crash cushion repair. Typically, a “ring of steel” would need to be established. The substitute is a mobile barrier trailer and one or two vehicles. Not only does it keep workers safe, but “they can immediately start working on the crash cushion,” he says.

The project begins at about 5 a.m. with the set-up of warning signs, arrowboards and barrels. The entire project, including traffic control set-up, the repair of the crash cushion and the taking down of all the traffic control is finished by 6:15 a.m. or sooner. Because of the protection afforded by the MBT, the project is safely accomplished with fewer dump trucks necessary to block access to the workers and fewer workers needed to drive or remain in the trucks.

“It might have taken an hour and a half or an hour and 45 minutes to do what can be done in an hour and 15 minutes,” Bloschock says.

The sheer size of a mobile barrier such as the MBT-1 assists with limiting traffic disruption to get workers in and out. This barrier can be as little as 42 feet long or can be put into 20-foot sections to become as long as 102 feet, he says. Traffic flows by the barrier trailer better than through an unprotected work zone, notes Walt Black, a retired equipment manager with the Colorado Department of Transportation (CDOT), who now works as vice president of equipment for Mobile Barriers. CDOT used the mobile barriers during guardrail repair work on

I-70 through Denver. “With the trailer on site, motorists can’t look into the work zone, so it cuts down on rubbernecking,” Black says. “Since [motorists] can’t see into the work zone, they just drive on.” This helped CDOT repair 42 sticks of guardrail on I-70 in the time it usually takes to do six to eight sticks of guardrail. “It took about seven hours to do 42 sticks,” Black says. “It normally would have taken 32 to 40 hours. It was completed in one night, where it typically would have taken a week.”

NTTA’s Wood adds that although this type of mobile barrier technology is “relatively new technology,” it’s just starting to come into the mainstream. “You will definitely start seeing more of it,” Wood says. “It just makes sense.” The NTTA has two mobile barriers and will soon have access to a third through a new eight-year contract with the Maryland-based contractor Roy Jorgenson to work on the George Bush Turnpike. “We required the contractor to purchase a mobile barrier,” Wood says. “We feel very strongly that the safety is well worth the expenditure. There will be lane closures for our IT department to work on the toll collection equipment in bucket trucks. Mobile barrier trailers will provide positive protection when our employees are out working. Everybody should be protecting their employees and providing positive protection for them.”

For an MBT-1 overview, go to [mobilebarriers.com/specs.htm](http://mobilebarriers.com/specs.htm) ❖

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