

*Worker Safety the Main Concern of...*

## New OSHA Traffic Control Standards

Effective December 11, 2002 (March 2003 in Tennessee), OSHA revised the construction industry standards requiring that traffic control signs, signals, and barricades conform to Part VI of either the 1988 Edition of the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) with 1993 revisions, or the Millennium Edition of the MUTCD.

### WHY THE CHANGE?

Each year in the U.S. more than 100 workers are killed and more than 20,000 are injured in the highway and street-construction industry. That is in addition to the thousands of motorists seriously injured or killed in and around construction work zones every year.

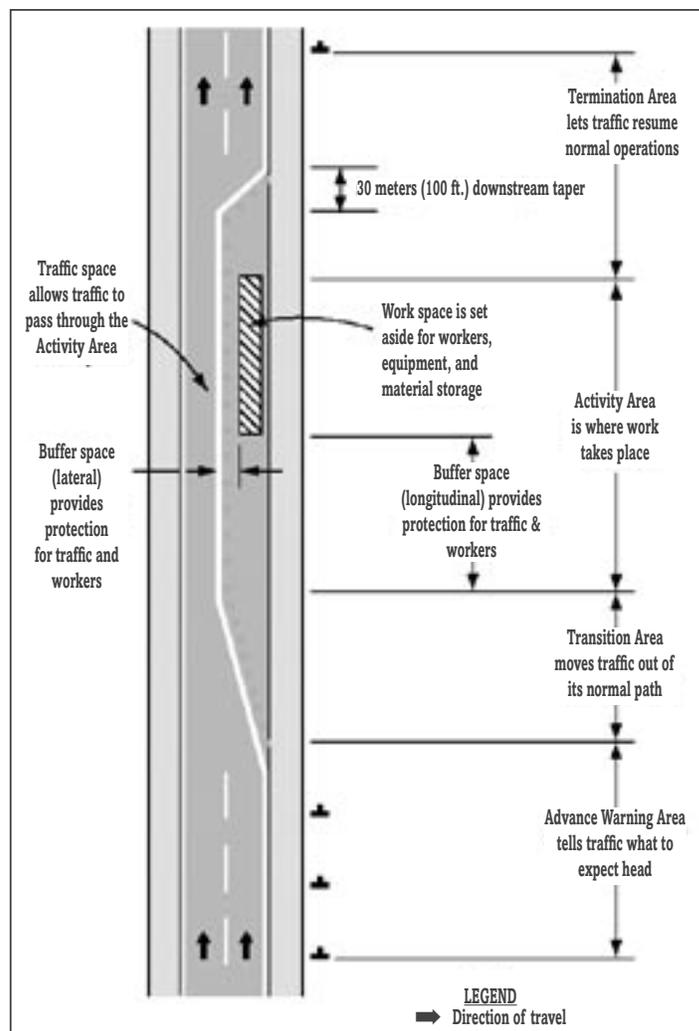
The vast majority of road construction projects in the country are funded through Federal transportation grants. As a condition of receiving the Federal funding, the U.S. Department of Transportation's (DOT) Federal Highway Administration requires compliance with its MUTCD. In effect, the MUTCD has become a national benchmark for all roads.

Prior to December 11, 2002, OSHA relied on a 1971 standard – the American National Standards Institute D6.1-1971, MUTCD. As time passed, that particular standard became grossly inadequate by today's safety standards. OSHA's adoption of the 1993 standards means improved safety for all road crews.

The biggest change for most contractors who do not work for DOT is that their work will now be covered by a significantly more detailed traffic safety standard. The following phrase is contained in the MUTCD:

*"The control of road users through a temporary traffic control zone shall be an essential part of highway construction, utility work, maintenance operations and incident management."*

In many instances, contractors and utilities will need to establish Traffic Control Plans (TCP). These plans will describe the traffic controls to be used for moving vehicles and pedestrian traffic through work zones. The plans may be very detailed, or may reference typical drawings contained in the MUTCD. The degree of detail



**Example of a Traffic Control Plan (TCP) for lane closure on a low-volume, two-lane road, as shown in the MUTCD.**

will depend on the complexity of each situation. TCPs must be prepared by persons knowledgeable about the fundamental principles of temporary traffic control and the work activities to be performed.

**FULL IMPACT OF NEW STANDARDS ARE SIGNIFICANT**  
OSHA's adoption of MUTCD is relatively new. As

# Slide Rail Shoring Systems Continue to Grow in Popularity

Slide rail shoring systems continue to grow in popularity in the U.S. They have proven to be

cast-in-place concrete structures, tank installations, pump installations, etc. These systems were specifically designed for pit applications, and were substantially heavier in their construction. The end result was shoring systems that were quick and easy to install using mid-sized excavators, were safe and cost-effective, and met OSHA's requirements.

Everything now seems to have come "full circle." Slide rail shoring systems today are used in more and more linear-applications in the United States – just like in Europe.



particularly cost-effective for pit-applications (where contractors and utilities have traditionally used sheet piling) and in situations with particularly poor soil conditions.

Slide rail shoring systems were first developed in Europe almost 30 years ago. The systems were used heavily in linear applications in which contractors laid storm drain and sewer pipe between manholes in congested environments. Contractors would shore the entire trench, leaving the shoring in place until all pipe was in place and tested. They would then backfill the trench and restore the surface.

In contrast, U.S. contractors have traditionally used *trench shields* in the situations such as this. Trench shields are usually pulled through trenches as pipe is laid. Once the pipe is properly installed, trenches are backfilled almost immediately.

## SLIDE RAIL NOT POPULAR EARLY ON

Early slide rail shoring systems were not readily accepted in the U.S. for at least a couple of reasons.

First, trench shields worked quite well, and many contractors saw little reason to change systems. Second, U.S. contractors tend to be rougher on equipment, compared to their European counterparts. Early slide rail systems did not hold up under the rigors of the job site.

In the early 1990s, several shoring system distributors in the northeast U.S. began promoting slide rail systems for manholes, pre-cast structures,

## Excavation Safety News

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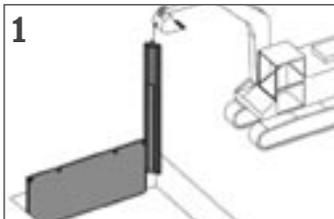
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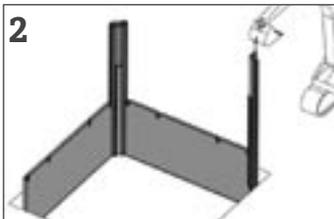
*This newsletter provides a brief overview of safety regulations and systems. It is not intended to provide specific legal or engineering advice. Please refer to OSHA CFR29, Part 1926, Subpart P, "Excavation and Trenches," and to other governmental regulations, and to manufacturers' instructions for specific information.*

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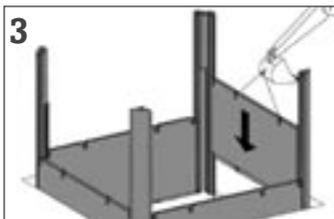
## 10 STEPS IN SLIDE RAIL INSTALLATION...



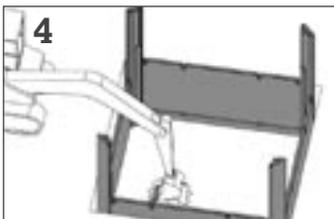
**1**  
*After initial excavation, first outer panel and corner post is put into place.*



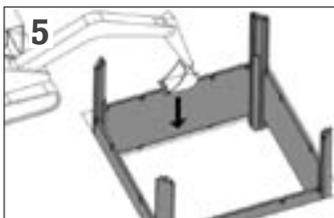
**2**  
*Second panel and corner post form a right [90°] angle.*



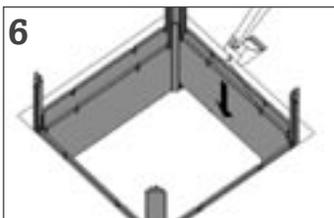
**3**  
*With the outer panels and corner posts in position...*



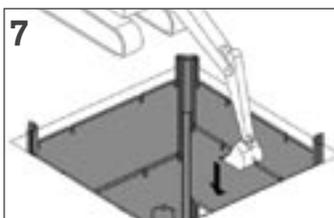
**4**  
*...excavation continues...*



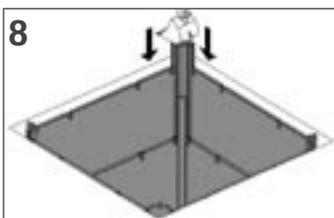
**5**  
*...while outer panels and corner posts are pushed to proper depth with the excavator.*



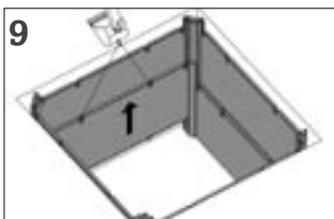
**6**  
*Excavation is deepened and panels are lowered into inside tracks on the posts.*



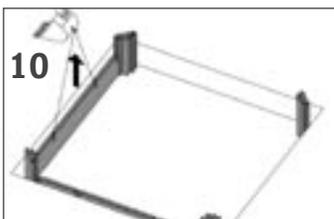
**7**  
*Excavator continues to dig and push the inside panels and corner posts...*



**8**  
*...until the desired depth is reached.*



**9**  
*Removal begins by extracting inner panels, as back-filling and compaction are started.*



**10**  
*Outer panels and posts are extracted as back-filling and compaction are completed.*

## Trench Boxes Save Lives...



*At least two people's lives were saved by this trench shield when a massive chunk of soil gave way, slamming the side of this trench box.*

## ...But They Must Be In Place



*The workers in this trench were not so fortunate. Two men lost their lives here because sensible – and required – protection was not provided in the form of proper, life-saving shoring or shielding.*

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# Who Says Highway Workers Don't Have a Sense of Humor?



*"TRAFFIC SAFETY" FROM PAGE 1*

a result, it's going to take time for the construction and utility industries to realize the full impact of this new standard. But be forewarned, the impact may be significant. For example, contractors and utilities should invest now in training programs for all personnel. Too many lives are lost and serious injuries occur as a result of problems in highway and road work zones.

The National Workzone Safety Information Clearinghouse web site lists a number of training resources. Go to <http://wzsafety.tamu.edu/index.stm> Other resources include:

- <http://mutcd.fhwa.dot.gov/>
- [www.atssa.com](http://www.atssa.com)
- [www.osha.gov](http://www.osha.gov)

## **TrenchSafety Training Schedule** *SPRING 2003*

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[www.trenchsafety.com](http://www.trenchsafety.com) or (800) 865-5801 or (901) 346-5800

### **COMPETENT PERSON CLASSES**

- Tuesday, April 1 – Memphis
- Tuesday, April 8 – Little Rock, Ark.
- Thursday, April 17 – Columbus, Miss. \*\*
- Tuesday, April 22 – Gulfport, Miss. \*\*  
*\*\* These classes are sponsored by the Mississippi AGC. Course fee is different. Contact Miss. AGC at (601) 981-1144 for details, or to register.*
- Tuesday, May 6 – Memphis
- Tuesday, May 27 – Fort Smith, Ark.

### **CONFINED SPACE CLASSES**

- Tuesday, March 18 – Little Rock
- Tuesday, March 25 – Jackson, Miss. \*\*  
*\*\* This class sponsored by the Mississippi AGC. Course fee is different. Contact Miss. AGC at (601) 981-1144 for details, or to register.*
- Tuesday, April 15 – Memphis