

Volume 7  
Number 3  
December 2003

# EXCAVATION SAFETY

[www.trenchsafety.com](http://www.trenchsafety.com)

# News

## Think It Can't Happen on Your Job Site?



*SEE STORY INSIDE...*

## He was OK. He was Lucky.

The dramatic photos on the front cover are from a cave-in that occurred in June 2003 at a job site in North Carolina.

The young man, employed by a plumbing contractor, was working in a trench that was **only five feet deep**. And it caved in. Fortunately, rescue workers arrived in time to pull him to safety.

But the injuries and psychological trauma to the fellow could have been avoided with the simple application of proper shoring or shielding devices.

Tragically, each year across the U.S., 100 or so construction workers are killed by trench cave-ins. And virtually every death is senseless, and could have been avoided.

Don't let this scene be repeated on one of your job sites. It will probably turn out a lot worse than this one did.

## Just How Much Does Soil Weigh?

You may be thinking, "If there isn't a **BIG** cave-in I'll be OK. I can easily dig out of a shallow trench. After all, I'm a strong construction worker. How much can a little dirt weigh."



Good question.

Here's a little

quiz to give you something to think about: Imagine one cubic foot of "average" soil. Just one foot wide, one foot front-to-back, and one foot high. Small, really. How much does that one cubic foot of soil weigh?

- A. 90-140 pounds
- B. 30-50 pounds
- C. 50-90 pounds
- D. 140-170 pounds

Now, once you make your choice for the correct answer, think of items you come across in your daily life that weigh about the same.

**The answer is on page 4.**



## THIS GUY IS REALLY ASKING FOR IT

*This is a good example of a shallow trench that a lot of construction workers probably think presents no real danger. In fact, it does. It is very similar in depth to the trench that is depicted in the front page photos.*

*So, what's wrong with this picture? Most obvious is **the absence of trench shoring or shielding of any kind**. And add these items:*

- **there is no means of access and egress,**
- **the worker is not wearing a hard hat,**
- **the spoil is set far too close to the edge of the trench.**

*Be aware. Be careful. Save lives.*

## Excavation Safety News

Published by

**TrenchSafety and Supply, Inc.**

[www.trenchsafety.com](http://www.trenchsafety.com)

3000 Ferrell Park Cove • Memphis, TN 38116  
(901) 346-5800 • (800) 856-5801 • FAX (901) 346-1060

North Little Rock, AR  
(501) 955-3800 • (800) 243-6408 • FAX (501) 955-2044

*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.*

Copyright © 2003, TrenchSafety and Supply, Inc.

# Make Sure You Understand the Manufacturer's Tabulated Data

To properly use a shoring or shielding system, it's important to understand and follow the tabulated data for the system. This data is provided by the system's manufacturer and is called "manufacturer's tabulated data."

Here's how the "Competent Person" on each site should use this tabulated data:

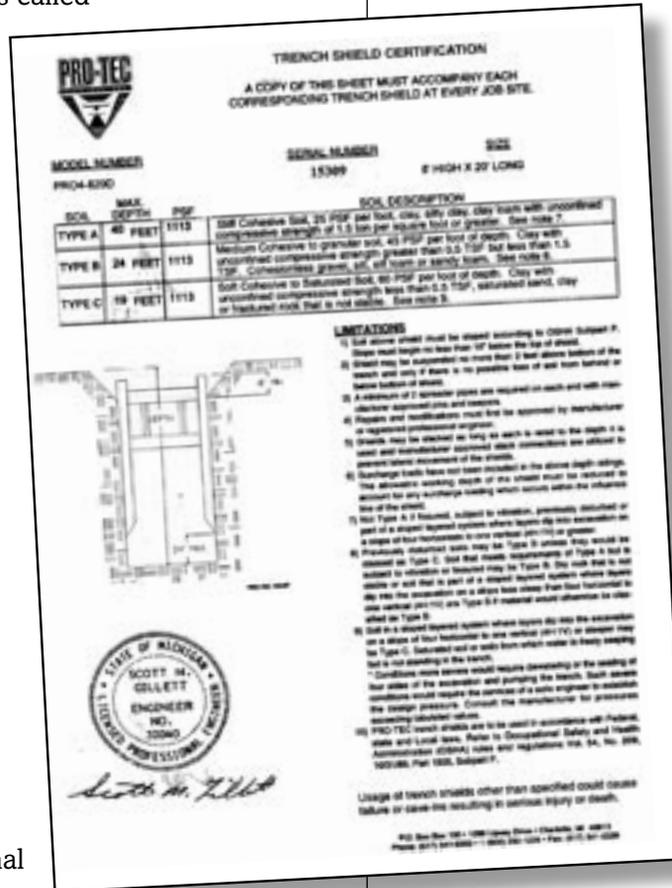
- First, check to make sure that the tabulated data matches the system in use. For example, if you are using XYZ Corporation's Model #123 Steel Trench Box, you must have data for that specific trench box model at the job site. Serial numbers do not have to match, provided the model numbers do.
- Second, make sure the tabulated data includes the name and stamp of the registered professional engineer who designed the system.
- Third, review the section dealing with special instructions or limitations. Typically this section will

include information about assembly, conditions of use, surcharge loading, backfill requirements, and maintenance requirements.

- Fourth, read all the footnotes.
- Fifth and finally, check the chart that shows depth ratings. **This chart is particularly important.** The Competent Person must match the soil conditions to the system's depth rating to provide proper protection for employees.

Some manufacturers will show two depth ratings for each type soil. In these instances, one depth rating will be for short-term situations—less than 24 hours. The second depth rating will be for long-term situations—more than 24 hours in one position. Long-term ratings will be shallower because, as time passes and the soil dries or becomes wetter, the potential lateral earth pressures increase.

Only by carefully studying and understanding the correct tabulated data can the Competent Person choose the correct trench protection system for the job.



## TrenchSafety Training Schedule 2003-2004

• \$95 per person

• All participants will receive a certificate and wallet card indicating completion.

• Contact TrenchSafety TODAY for more information or to register:

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

### COMPETENT PERSON CLASSES

- Tuesday, Jan. 6, 2004 – Memphis
- Tuesday, Jan. 13 – Little Rock
- Tuesday, Feb. 10 – Memphis
- Tuesday, Feb. 17 – Little Rock
- Tuesday, Feb. 24 – Fort Smith, Ark.
- Tuesday, March 9 – Memphis

- Tuesday, March 16 – Little Rock
- Tuesday, April 6 – Memphis
- Tuesday, April 13 – Little Rock
- Tuesday, April 20 – Jackson, Miss.
- Tuesday, May 4 – Memphis
- Tuesday, May 11 – Little Rock

### CONFINED SPACE CLASSES

- Tuesday, Jan. 27, 2004 – Little Rock
- Tuesday, March 23 – Memphis
- Tuesday, May 25 – Jackson, Miss.

**TrenchSafety and Supply, Inc.**

3000 Ferrell Park Cove  
Memphis, TN 38116

PRST  
FIRST CLASS  
U.S. POSTAGE  
**PAID**  
SPENCER, IN  
Permit No. 10

**Address Service Requested**

## TrenchSafety Solutions

The trench shield system at right, supplied by TrenchSafety to a crew working at the FedEx Forum construction site, is 12' wide, 32' long, and 16' deep. It's for a bore of a sanitary sewer line that will go under several existing utilities and a roadway.

The 18,000-seat FedEx Forum, is being constructed one-half block south of historic Beale Street in downtown Memphis. Scheduled for opening in the fall 2004, it will be the new home of the Memphis Grizzlies of the National Basketball Association.



*Answer to Soil Weight Quiz on page 2.*



**A.** Average soil weighs 90-140 pounds per cubic foot. So, to give yourself an idea of how that "little" cave-in will feel, think about this: TrenchSafety's Ford Expedition shown above weighs almost 6,000 pounds. That's only 2 cubic yards of soil. Can you imagine that truck sitting on your chest?