

# Missouri LICA NEWS

Volume 65, Number 4

The Missouri Land Improvement Contractors Association

May/June 2006



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## State Cost-Share Update

On May 11, Governor Blunt announced that he has placed the renewal of the state cost-share program on the August 8, 2006 ballot. At this time, Constitutional Amendment 1 (state cost-share program renewal) is the only issue on the August ballot. However, it is possible that two others issues may also be placed on this ballot. The August ballot will also be the primary for many statewide and local candidates.

The Citizens' Committee for Soil, Water and State Parks is planning on running ads in newspapers and on radio to promote passage of this issue. Missouri LICA members are direct beneficiaries of this program. If you want to see this renewed, please help fund the informational campaign by sending your contributions to:

Citizens' Committee for Soil, Water and State Parks  
P.O. Box 658  
Jefferson City, MO 65102

## Sales Tax Exemption on Field Tile?

About a month ago, thanks to a "heads up" from MLICA member Mel Kleinsorge, the MLICA State Office began to research a rumor that field tile is exempt from sales tax. Historically, this rumor has circulated about every three or four years. However, this time, there may be some truth to it.

We contacted Senator Cauthorn's office, the Department of Revenue (DOR), Missouri Department of Natural Resources (DNR), and Senate Research. At first no one, with the exception of the Senator Cauthorn, was aware that the 2005 Missouri legislature had passed HCS/SCS/SB355 which was signed by Governor Blunt on July 7, 2005, with an emergency clause.

DNR has asked its attorney for an opinion on how this legislation impacts the sales tax exemption for field tile and whether or not it includes risers and outlets. As this newsletter goes to press, the DNR attorney believes that field tile, risers and outlets are exempt from state and local sales tax. However, we are waiting for a final opinion from the State Attorney General's Office before we announce this as "fact." An opinion from the AG's Office is expected by mid-June, at which time the DNR Commission will review the statute and then, most likely, will issue a statement to all the county offices updating them on the status of sales tax on field tile and what is included in the term "field tile."

If you would like to review the statute for yourself, it is located in Chapter 10, Subsection 144.030, subdivision 22 of the Revised Missouri Statutes. You can find it on the web at : <http://www.moga.state.mo.us/statutes/C100-199/1440000030.HTM>.

Once we have final confirmation, we will notify our members of the change, along with an explanation of how to file for a sales tax refund for your customers.

We owe a great thanks to MLICA member Mel Kleinsorge for being on top of this issue and for starting the ball rolling! If you have heard a rumor and would like some help finding out the "truth," please contact the MLICA State Office (573-634-3001). We'll do our best to find out the truth and notify our membership of the results!

## Dam Regulations

SB 1236, initially proposed as in response to the dam collapse at Taum Sauk State Park, did not pass out of the House during the 2006 Legislative Session. However, we fully expect it to be re-introduced during the 2007 Legislative Session. Initially, this legislation raised concerns among our members; however, changes made through the committee process addressed our concerns and, if the same legislation is proposed next year, we don't believe it should negatively impact our members. We'll keep you posted!

# Missouri LICA NEWS



## Missouri Land Improvement Contractors Association

The *Missouri LICA NEWS* is the official bi-monthly publication of the Missouri Land Improvement Contractors Association, dedicated to the professional conservation of soil and water.

The *Missouri LICA NEWS* welcomes your comments and articles.

1101 West High Street  
Jefferson City, MO 65109  
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## A Message from Our President

I hope this letter catches everyone with their blades and buckets shining. Since all the fun we had at the Winter Convention, there hasn't been much time for play. The weather last winter and this spring has been great for working (in central Missouri anyway).

I just wanted to take this opportunity to inform you all about the recent Board Meetings and upcoming events. The Board met in March and I feel we got a lot accomplished. Along with a few conference calls, we have successfully got the Summer Meeting planned, Backhoe rodeos set up, and set a date and location for next year's Winter Convention.

Along with those events, we have set goals on membership that we would like to see go above and beyond our expectations. We all need to remember that there is strength in numbers and there are thousands of contractors in the state that could and are benefiting from LICA's voice and relations with NRCS, DNR, DOT, and our lawmakers across the country. Remember, if you know other contractors let them know what LICA can do to benefit them.

Okay, back to the fun that I mentioned earlier. I hope everyone will take time on July 28th and 29th to come to my place for the Annual Summer Meeting. Guaranteed fun with Dozer Baseball, Backhoe Rodeo, and Skidsteer Obstacle Course. Bring the family and BBQ, camp, and participate in a fishing tournament.

In closing, I would like to thank all of our associates for their support throughout the year and I encourage our members to remember them with your next purchase.

Well, time to shine the blade.

Milburn Davis  
MLICA President



*We wish the following members a very Happy Birthday!*

### June

08 Ricky Stunz  
10 Mike Dobson  
Don Keener  
12 Wayne Scott  
18 Kerry Dickemann  
19 David Dittmer  
22 Charlie Boyer  
26 Don Laut  
28 Michael Long  
29 Dick Rupp  
30 Eldon Brinton

### July

07 Elwin Yoder  
10 Eddie Gilmore  
Buddy Hostetter  
11 Tom Craig  
14 Tyler Bledsoe  
17 Don Pfost  
20 David Jones  
26 Larry Koenigsfeld  
27 Barney Esbeck  
29 Glen Hill  
30 Hollis Boyer  
31 Milburn Davis

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# Missouri Land Improvement Contractors Association



**2006 Summer Meeting**  
**July 28-29, 2006**  
**Cole Camp, Missouri**



*A historic town on the National Register of Historic Places*  
[www.colecampmissouri.com](http://www.colecampmissouri.com)

**Dozer Baseball, Backhoe Rodeo  
and Skidsteer Obstacle Course!**

## Thank You to Our Summer Meeting Sponsors!

**Murphy Tractor & Equipment • Sydenstricker Implement Co.  
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## Tentative Schedule

### Friday, July 28

Starting at noon  
(Members Only)  
Set up games  
Set up camp  
Fishing and Bonfire

### Saturday, July 29

10:00 a.m. - 4:00 p.m.  
Backhoe Rodeo, Dozer Baseball,  
and Skidsteer obstacle course  
\* Hamburgers and hot-dogs  
available for purchase

### Saturday, July 29 (*Continued*)

4:30 p.m.  
Prizes and Awards Presented  
5:00 p.m.  
MLICA Membership Meeting  
\* Anyone interested in joining MLICA  
is welcome to attend.  
6:00 p.m.  
Whole Hog Roast  
7:00 p.m.  
Fishing Tournament  
(Members Only)

# Summer Meeting Details ...

**Directions:** From Hwy 65 exit on Hwy 52 overpass. Take the first right on East Outer Road South. Follow blacktop for 3 miles until you come to a 4-way gravel crossroad. Turn left, first place on the right.

**For The Ladies:** If all this dirt and noise doesn't appeal to you, make sure to visit the many antique and craft shops located in town. Also, for a step back in history, visit the new Cole Camp Museum. Check out the website for more details on these locations.

## Motels

### BunkHouse Lodge

23339 Highway 65  
Lincoln, MO  
\* Between Lincoln and Warsaw  
10 miles  
(660) 547-3020

### Best Western

3120 S Limit (65 Highway)  
Sedalia, MO  
20 miles  
(660) 826-6100

### Ramada Inn

3501 W. Broadway (50 Highway)  
Sedalia, MO  
20 miles  
(660) 826-8400

### Parkfield Inn

151 Truman Dam Access  
Warsaw, MO  
18 miles  
(660) 438-2474

## Bed and Breakfasts

### Tymes Past

108 S. Elm  
Cole Camp, MO  
5 miles  
(660) 668-3611

### Harris Gastehaus

106 Butterfield Trail  
Cole Camp, MO  
5 miles  
(660) 668-4432

## Camping

Primitive waterfront campsites are available on premises.  
No charge. Tents, campers, or under the stars. (Members only)

## For More Information:

Dean Yoder (660) 438-5375  
Milburn Davis (660) 668-3950

**NOTE:** *The Summer Meeting is being held on a private residence. MLICA and Davis Custom Dozing are not responsible for accidents. Make sure to bring your fishing poles and lifejackets. A close eye should be kept on children, due to heavy equipment and deep water.*

## Registration Form:

**Cost:** Adults are \$15 each; Youth (ages 4-13) are \$7 each;  
Children (3 and under) are FREE!

**Names:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**By July 20,** send registration form and payment to:

MLICA  
1101 West High Street  
Jefferson City, MO 65109

## What To Bring ...

Lawn chairs  
Fishing poles  
Life jackets

## What To Do ...

Dozer Baseball  
Backhoe Rodeo  
Skidsteer Obstacle Course  
Antique Shopping  
Fishing  
Bonfire  
Visit with friends

## Welcome Aboard!

We'd like to welcome Jerry Koechner back to the MLICA family. If you'd like to give him a call and personally welcome Jerry back, here's his contact information:

Jerry Koechner  
2641 Deloak Dr, Apt I  
St. Louis, MO 63129-4251  
District: 6 County: St. Louis  
Cell: 816-288-2644

## Equipment Auctions

Missouri Auto Auction, a MLICA Associate Member, has announced that they will now be holding monthly Equipment Auctions. The dates are June 30, July 28, August 25, September 29, October 27, November 17, and December 29.

If you are interested in selling or buying equipment and would like more information, you can check it out at [www.moaa.biz](http://www.moaa.biz) or by contacting Tyson Hash at 5733-219-0020 or [tysonh@moaa.biz](mailto:tysonh@moaa.biz).

## Attention Associates

- If you have any events you'd like us to help advertise for you, please let Debbie know the dates and specifics. We'll put the information in the next newsletter and on our website! FREE!
- If you are interested in exploring how the LICA Safety Insurance Group could provide your business and/or Workers' Compensation insurance, please give Bruce Mosier, the program's managing agent, a call at 800-831-8545.
- Our 2006 Fall Board of Directors and Committee Meetings are scheduled for Saturday, October 28 in Jefferson City, MO. All members are encouraged to attend!
- We've set the date and location for our 2007 Winter Convention. It will be held January 12 & 13, 2007 at the Country Club Hotel in Lake Ozark, MO. Our exhibit hall will take place the evening of Friday, January 12, 2007.
- The 2007 MLICA Drainage School has been tentatively set for Wednesday-Friday, February 8-10, 2007 in Macon, MO.

## Special Thanks to Our Associate Members for Their Continued Support!



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# The Victor L. Phillips Company Welcomes New Associates

**Greg Knipp**, Used Equipment Manager for VLP, took over for the retiring Bob Tanner, who was with VLP for 39 years. Greg has 17 years in the equipment industry in the areas of sales and sales management, and branch and operations management. Greg wants to improve communication and information sharing within the scope of VLP's used equipment area. Knipp has a long-term goal to help build an improved used equipment program while adding value and support to the inter-departments and customers of VLP.

**Eric Lucas** has been hired as the Branch Manager for both the Springfield and Joplin locations. He comes to VLP from Prosser, Washington, where he held several positions leading up to a management role of supervising three branches for General Western Power & Equipment. Becoming a contributing member of the VLP team is Eric's immediate goal. His long-term goal is to help increase Joplin and Springfield operations to maximum potential while maintaining great customer service.

**Bill Esterly** joins VLP as its Corporate Parts Manager. He was previously General Service Manager for Road Builders Machinery. Bill would like to immediately increase customer support and company profit at VLP. His long-term goals are to completely revamp the company's parts inventory and the KC warehouse.

**Brian Pieper** is the VLP, KC, Heavy Equipment Sales Rep for Clay, Platte and Northwestern Jackson counties. Brian was most recently with Hagie Manufacturing selling large capital equipment in various industries, predominantly agricultural. Pieper first wants to meet all existing customers and prospects to analyze current and future needs. Ultimately, he wants to be the best resource for heavy equipment in the Kansas City area.



Greg Knipp



Eric Lucas



Bill Esterly



Brian Pieper

Torque - Durable - Superior - Power  
Steel - Heavy Duty - Rugged  
**Tough Words -  
Tough Equipment**



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Springfield—(800) 955-2729  
Wichita—(800) 878-3346



# Excavations: Hazard Recognition in Trenching and Shoring

## OSHA Technical Manual - Section V, Chapter 2

As the 2006 construction season begins, it is very important to review OSHA standards, which protect our lives and those of our employees. Below is the second of a series of articles relating to OSHA standards. These articles are not intended to be used as legal interpretations of OSHA standards, but rather as a refresher. The information contained in these articles came from the OSHA website: [www.OSHA.gov](http://www.OSHA.gov) and can change over time. It is recommended that you and your employees become familiar with OSHA standards.

### TEST EQUIPMENT AND METHODS FOR EVALUATING SOIL TYPE

Many kinds of equipment and methods are used to determine the type of soil prevailing in an area, as described below.

A. **POCKET PENETROMETER** - Penetrometers are direct-reading, spring-operated instruments used to determine the unconfined compressive strength of saturated cohesive soils. Once pushed into the soil, an indicator sleeve displays the reading. The instrument is calibrated in either tons per square foot (tsf) or kilograms per square centimeter (kPa). However, Penetrometers have error rates in the range of  $\pm 20$ -40%.

1. **Shearvane (Torvane)** - To determine the unconfined compressive strength of the soil with a shearvane, the blades of the vane are pressed into a level section of undisturbed soil, and the torsional knob is slowly turned until soil failure occurs. The direct instrument reading must be multiplied by 2 to provide results in tons per square foot (tsf) or kilograms per square centimeter (kPa).

2. **Thumb Penetration Test** - The thumb penetration procedure involves an attempt to press the thumb firmly into the soil in question. If the thumb makes an indentation in the soil only with great difficulty, the soil is probably Type A. If the thumb penetrates no further than the length of the thumb nail, it is probably Type B soil, and if the thumb penetrates the full length of the thumb, it is Type C soil. The thumb test is subjective and is therefore the least accurate of the three methods.

3. **Dry Strength Test** - Dry soil that crumbles freely or with moderate pressure into individual grains is granular. Dry soil that falls into clumps that subsequently break into smaller clumps (and the smaller clumps can be broken only with difficulty) is probably clay in combination with gravel, sand, or silt. If the soil breaks into clumps that do not break into smaller clumps (and the soil can be broken only with difficulty), the soil is considered unfissured unless there is visual indication of fissuring.

B. **PLASTICITY OR WET THREAD TEST** - This test is conducted by molding a moist sample of the soil into a ball and attempting to roll it into a thin thread approximately 1/8 inch (3 mm) in diameter (thick) by 2 inches (50 mm) in length. The soil sample is held by one end. If the sample does not break or tear, the soil is considered cohesive.

C. **VISUAL TEST** - A visual test is a qualitative evaluation of conditions around the site. In a visual test, the entire excavation site is observed, including the soil adjacent to the site and the soil being excavated. If the soil remains in clumps, it is cohesive; if it appears to be coarse-grained sand or gravel, it is considered granular. The evaluator also checks for any signs of vibration.

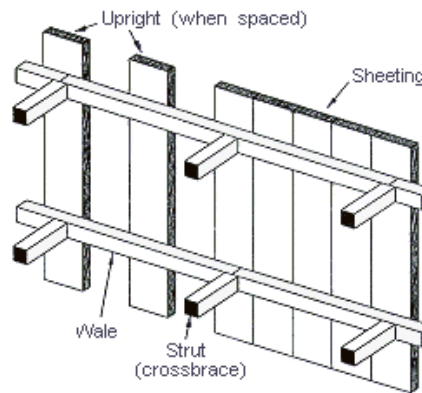
During a visual test, the evaluator should check for crack-line openings along the failure zone that would indicate tension cracks, look for existing utilities that indicate that the soil has previously been disturbed, and observe the open side of the excavation for indications of layered geologic structuring.

The evaluator should also look for signs of bulging, boiling, or sluffing, as well as for signs of surface water seeping from the sides of the excavation or from the water table. If there is standing water in the cut, the evaluator should check for "quick" conditions (see page 7 under Overview: Soil Mechanics in the March/April, 2006 *MLICA News*) In addition, the area adjacent to the excavation should be checked for signs of foundations or other intrusions into the failure zone, and the evaluator should check for surcharging and the spoil distance from the edge of the excavation.

### SHORING TYPES

Shoring is the provision of a support system for trench faces used to prevent movement of soil, underground utilities, roadways, and foundations. Shoring or shielding is used when the location or depth of the cut makes sloping back to the maximum allowable slope impractical. Shoring systems consist of posts, wales, struts, and sheeting. There are two basic types of shoring, timber and aluminum hydraulic.

FIGURE V-2-7 - TIMBER SHORING



**HYDRAULIC SHORING** - The trend today is toward the use of hydraulic shoring, a prefabricated strut and/or wale system manufactured of aluminum or steel. Hydraulic shoring provides a critical safety advantage over timber shoring because workers do not have to enter the trench to install or remove hydraulic shoring. Other advantages of most hydraulic systems are that they:

- Are light enough to be installed by one worker;
- Are gauge-regulated to ensure even distribution of pressure along the trench line;
- Can have their trench faces "preloaded" to use the soil's natural cohesion to prevent movement; and
- Can be adapted easily to various trench depths and widths.

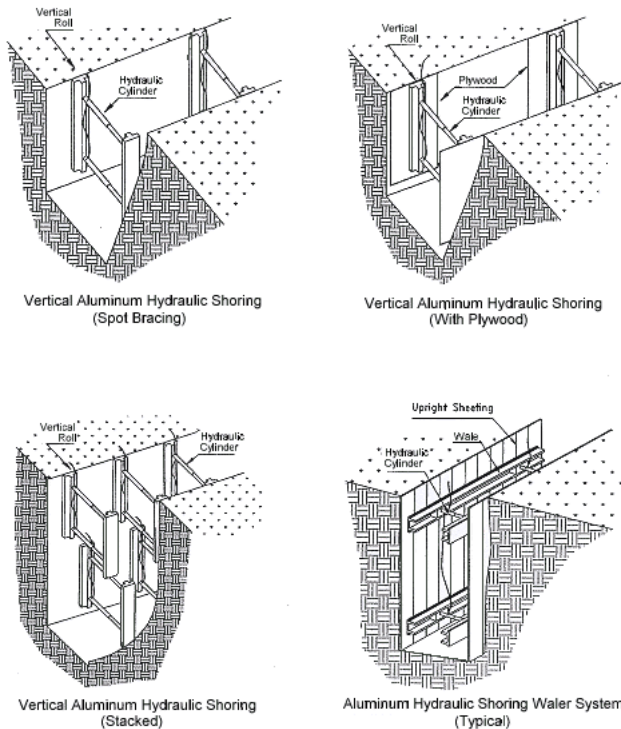
All shoring should be installed from the top down and removed from the bottom up. Hydraulic shoring should be checked at least once per shift for leaking hoses and/or cylinders, broken connections, cracked nipples, bent bases, and any other damaged or defective parts.



# Excavations: Hazard Recognition in Trenching and Shoring

## OSHA Technical Manual - Section V, Chapter 2 (Continued)

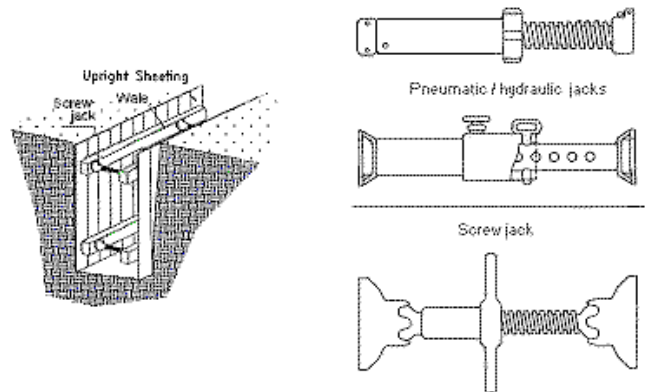
**FIGURE V:2-8 - SHORING VARIATIONS: TYPICAL ALUMINUM HYDRAULIC SHORING INSTALLATIONS**



**PNEUMATIC SHORING** - works in a manner similar to hydraulic shoring. The primary difference is that pneumatic shoring uses air pressure in place of hydraulic pressure. A disadvantage to the use of pneumatic shoring is that an air compressor must be on site.

1. **Screw Jacks** - Screw jack systems differ from hydraulic and pneumatic systems in that the struts of a screw jack system must be adjusted manually. This creates a hazard because the worker is required to be in the trench in order to adjust the strut. In addition, uniform "preloading" cannot be achieved with screw jacks, and their weight creates handling difficulties.
2. **Single-Cylinder Hydraulic Shores** - Shores of this type are generally used in a water system, as an assist to timber shoring systems, and in shallow trenches where face stability is required.
3. **Underpinning** - This process involves stabilizing adjacent structures, foundations, and other intrusions that may have an impact on the excavation. As the term indicates, underpinning is a procedure in which the foundation is physically reinforced. Underpinning should be conducted only under the direction and with the approval of a registered professional engineer.

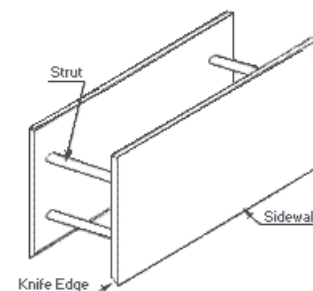
**FIGURE V:2-9 - SHORING VARIATIONS**



### SHIELDING TYPES

A. **TRENCH BOXES** are different from shoring because, instead of shoring up or otherwise supporting the trench face, they are intended primarily to protect workers from cave-ins and similar incidents. The excavated area between the outside of the trench box and the face of the trench should be as small as possible. The space between the trench boxes and the excavation side are backfilled to prevent lateral movement of the box. Shields may not be subjected to loads exceeding those which the system was designed to withstand.

**FIGURE V:2-10 - TRENCH SHIELD**





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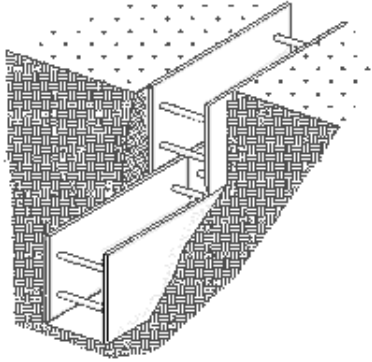
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# Excavations: Hazard Recognition in Trenching and Shoring

## OSHA Technical Manual - Section V, Chapter 2 (Continued)

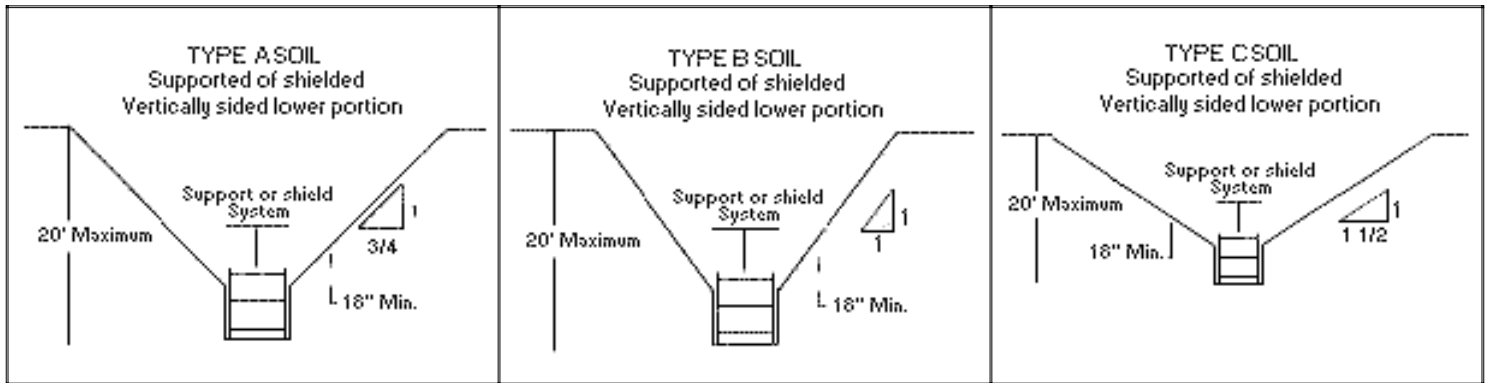
FIGURE V:2-11 - TRENCH SHIELD, STACKED



B. **COMBINED USE** - Trench boxes are generally used in open areas, but they also may be used in combination with sloping and benching. The box should extend at least 18 in (0.45 m) above the surrounding area if there is sloping toward excavation. This can be accomplished by providing a benched area adjacent to the box.

Earth excavation to a depth of 2 ft (0.61 m) below the shield is permitted, but only if the shield is designed to resist the forces calculated for the full depth of the trench and there are no indications while the trench is open of possible loss of soil from behind or below the bottom of the support system. Conditions of this type require observation on the effects of bulging, heaving, and boiling as well as surcharging, vibration, adjacent structures, etc., on excavating below the bottom of a shield. Careful visual inspection of the conditions mentioned above is the primary and most prudent approach to hazard identification and control.

FIGURE V:2-12 - SLOPE AND SHIELD CONFIGURATIONS.



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# Excavations: Hazard Recognition in Trenching and Shoring

## OSHA Technical Manual - Section V, Chapter 2 (Continued)

### SLOPING AND BENCHING

TABLE V:2-1 - ALLOWABLE SLOPES

A. **SLOPING** - Maximum allowable slopes for excavations less than 20 ft (6.09 m) based on soil type and angle to the horizontal are as follows: (See Table V:2-1)

Soil Type	Height/Depth Ratio	Slope Angle
Stable Rock	Vertical	90°
Type A	3/4:1	53°
Type B	1:1	45°
Type C	1 1/2:1	34°
Type A (short-term)	1/2:1	63°

(For a maximum excavation depth of 12 ft)

FIGURE V:2-13 - SLOPE CONFIGURATIONS: EXCAVATIONS IN LAYERED SOILS

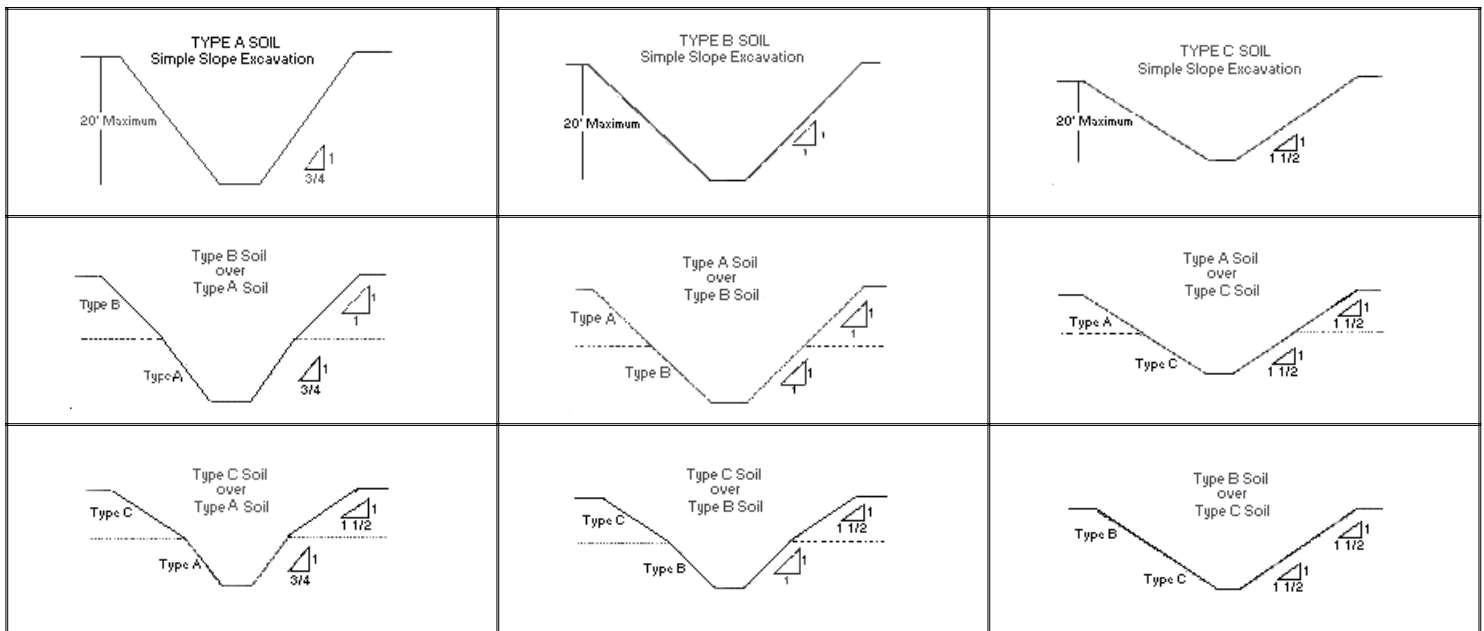
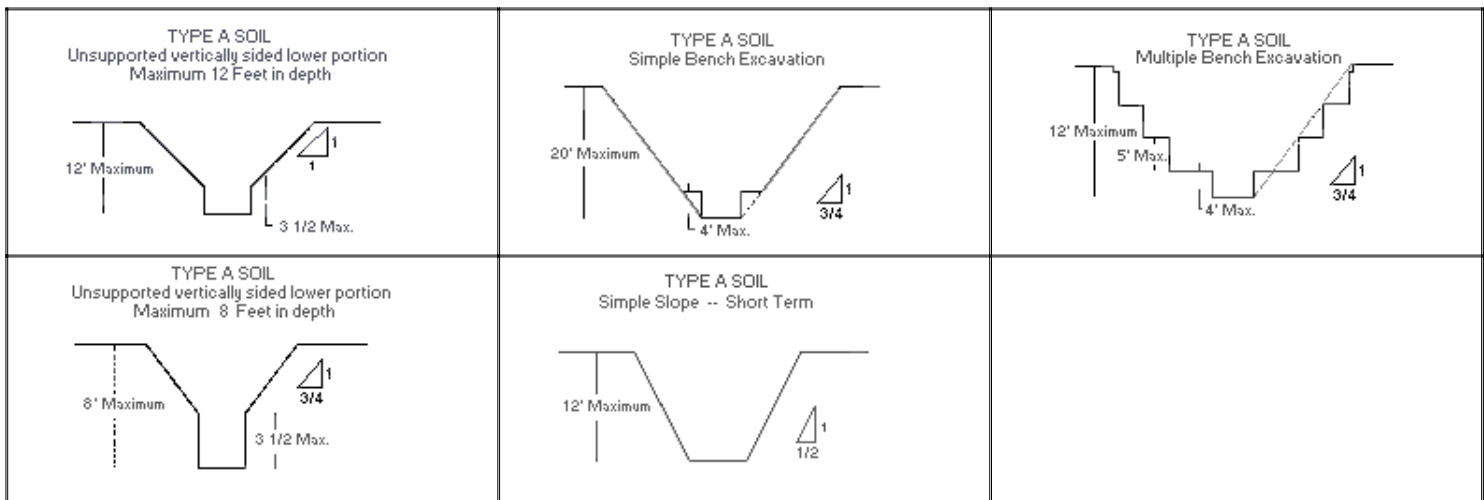


FIGURE V:2-14 - EXCAVATIONS MADE IN TYPE A SOIL



**For more industry information, check out**  
**[www.MLICA.org](http://www.MLICA.org)**

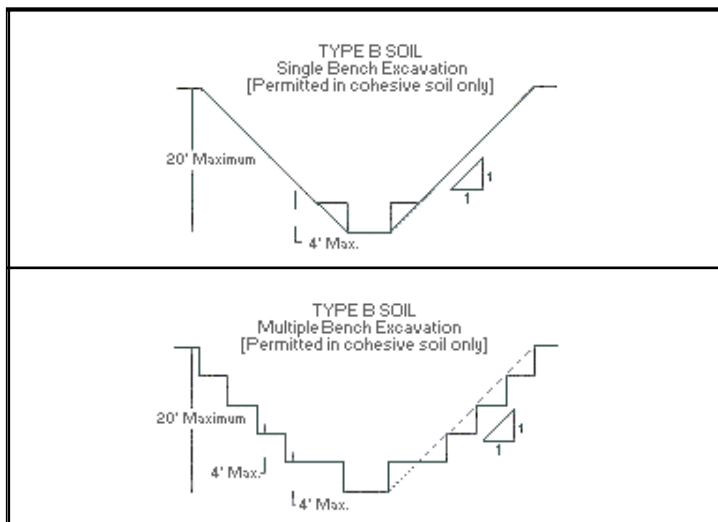
# Excavations: Hazard Recognition in Trenching and Shoring

## OSHA Technical Manual - Section V, Chapter 2 (Continued)

B. **BENCHING** - There are two basic types of benching, simple and multiple. The type of soil determines the horizontal to vertical ratio of the benched side.

As a general rule, the bottom vertical height of the trench must not exceed 4 ft (1.2 m) for the first bench. Subsequent benches may be up to a maximum of 5 ft (1.5 m) vertical in Type A soil and 4 ft (1.2 m) in Type B soil to a total trench depth of 20 ft (6.0 m). All subsequent benches must be below the maximum allowable slope for that soil type. For Type B soil the trench excavation is permitted in cohesive soil only.

FIGURE V:2-15 - EXCAVATIONS MADE IN TYPE B SOIL

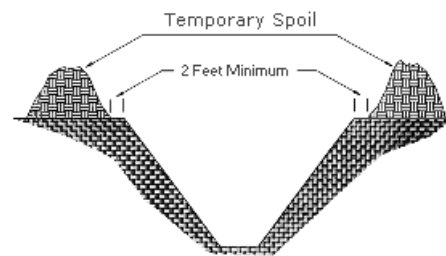


## SPOIL

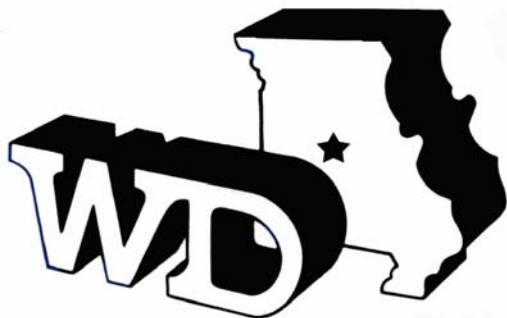
A. **TEMPORARY SPOIL** - Temporary spoil must be placed no closer than 2 ft (0.61 m) from the surface edge of the excavation, measured from the nearest base of the spoil to the cut. This distance should not be measured from the crown of the spoil deposit. This distance requirement ensures that loose rock or soil from the temporary spoil will not fall on employees in the trench.

Spoil should be placed so that it channels rainwater and other runoff water away from the excavation. Spoil should be placed so that it cannot accidentally run, slide, or fall back into the excavation.

FIGURE V:2-16 - TEMPORARY SPOIL



B. **PERMANENT SPOIL** - Permanent spoil should be placed at some distance from the excavation. Permanent spoil is often created where underpasses are built or utilities are buried. The improper placement of permanent spoil, i.e. insufficient distance from the working excavation, can cause an excavation to be out of compliance with the horizontal-to-vertical ratio requirement for a particular excavation. This can usually be determined through visual observation. Permanent spoil can change undisturbed soil to disturbed soil and dramatically alter slope requirements.



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