Why Are Trenches Dangerous?
A trench is an excavation deeper than it is wide.

Trenches can kill
- Workers can be buried alive
- Cave-ins can result from stresses in walls, nearby moving vehicles and equipment, or spoil piles
- Water can collect in bottom
- Flammable/toxic gases can build up
- Gas from nearby sewer or gas lines can seep into trench

Before digging
- Call electrical, gas, and communications utilities
- Use extreme caution with equipment

Trenches > 4' deep may be confined spaces.
An excavation with formwork 15' or less from a sidewall is also a trench.
How Do We Prevent Cave-Ins?
Trenches 5 feet or deeper require support.*

**Sloping**
- Soil angled to increase stability

**Benching**
- Steps in trench wall

**Shoring**
- Support system made of posts, wales, struts, and sheeting or hydraulic shoring

**Shielding**
- Protective frame or box, to protect workers after a cave-in

*Unless in stable rock (see definition).
What Else Does Excavation Require?

Employer should designate 'competent person.'

'Competent person' must inspect

- At least daily and beginning of each shift
- After precipitation, a thaw, and other events that could increase hazard
- For disturbed ground, water, toxics, and other hazards
- If walls sag or crack or the bottom bulges
- To keep spoil at least two feet from trench edge
- If there are nearby vibration sources such as railroads or piledriving
- That no worker is more than 25 feet from an exit.

'Competent person' should stop the work if a hazard exists.