

## Excavation and Trenching Toolbox Talk

Headlines, stories and photographs like these are seen far too often in the construction industry.

Excavating and Trenching is one of the most hazardous construction operations, but also one of the most preventable. National statistics show that between 50 and 60 workers die each year while performing trench and excavation work, with over 75% of these deaths from actual cave-in's. A high percentage of fatalities are would-be rescuers, as there is a 60% chance or greater that there will be a secondary collapse.

OSHA defines a trench as a narrow excavation made below the surface of the ground in which the depth is greater than the width-the width not exceeding 15 feet. An excavation is any man-made cut, cavity, trench, or depression in the earth's surface formed by earth removal.

Most accidents occur in trenches 5-15 feet deep and there is usually no warning before disaster strikes. A Cave-in is the greatest risk.

Sound Bite Jeff Carter, IOSHA

The OSHA standards intend to protect workers in excavations and trenches. These standards require that walls and faces of all excavations in which workers are potentially exposed to danger from moving ground be guarded by a shoring system, safe sloping of the ground, or equivalent means of protection such as trench shields or boxes.

Sound Bite Jeff Carter, IOSHA

Before Beginning an Excavation, you must examine the following things:  
Evaluate the soil conditions. What type of soil is it? Remember, any previously disturbed soil is type C soil. What is the depth of the cut? What is the water content of the soil? Has the weather or climate changed since the trench was dug? Don't place spoils within two feet from the edge of excavation. Also, be sure to test for low oxygen, hazardous fumes and toxic gases and provide safe in and out access from the trench. To protect from falls, falling loads and mobile equipment be sure to install barricades around the trench. Finally, it is important to know who the competent person is on every jobsite.

Sound Bite – Evan Frey

The competent person must also be capable of identifying hazards, and authorized to immediately eliminate them. A competent person must make daily inspections of excavations, areas around them and protective systems: Before work starts and as needed, after rainstorms, and when you can reasonably anticipate an employee will be exposed to hazards.

Sound Bite Jeff Carter, IOSHA

### Summary

The greatest risk in an excavation is a cave-in

Employees can be protected through sloping, shielding, and shoring the excavation

A competent person is responsible to inspect the excavation

If you have any questions following this video, please ask your safety director or supervisor.