**Trenching and Excavation Safety Tips**

Excavation and Trenching are among the most hazardous construction operations.

On average 25 people die each year in trenching incidents, many more seriously injured.

Dirt is heavy. One cubic yard equals about 3,000 pounds or more, about the same as a mid-sized car!

A person trapped in a cave-in, has little chance for survival. ***Prevention is Life Saving!***

What is a Trench vs Excavation?

**Trench**: a narrow excavation mad below the surface of the ground. In general, the depth of a trench is greater than the width (measured at the bottom) is not greater than 15 feet.

**Excavation**: any man-made cut, cavity, trench or depression in the earth’s surface formed by earth removal.

**Competent Person**:

One who is designated by the employer and is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to workers, and who is authorized to take prompt corrective measures to eliminate them.

**Daily Inspections**:

The competent person is to perform Daily Inspection of the trench and adjacent area for signs of hazardous conditions that could result in a cave-in or other injuries. Inspections also need to be conducted after a rainstorm or other hazardous event.

**Protection from Cave-ins**:

When conducting trenching operations at 5 feet or deeper, you must protect your employees from possible trench cave-ins by using one or a combination of three protection methods:

***Sloping****:* a method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation.

***Shoring****:* a structure such as a metal hydraulic, mechanical or timber shoring system that support the sides of the excavations.

***Shielding****:* a structure that is designed to withstand the forces imposed on it by a cave-in and protects employees inside of the shield.

**Means of egress or escape**:

Before entering a trench that is 4 feet or greater, you must be within 25 feet (unobstructed) of a ladder, ramp or stairway. \*Remember, ladders are to extend 3 feet above top of trench.

**Other Hazards**:

* Locate all unground utilities before digging. Underground installations must be protected, supported or removed when excavation is open.
* Keep excavated soil (spoil pile) and other materials and equipment at least two feet from the edge of the trench.
* Never allow workers outside of protected areas in a trench. Sloped, Shored or Shielded Areas.
* Never allow workers to be under raised loads.
* Test for other hazards such as low oxygen, hazardous fume and toxic gases before entering an excavation that is more than 4 feet deep.
* Do not enter an excavation where water has accumulated or is accumulating unless precautions are taken to protect workers.



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