EXCAVATIONS, TRENCHING & SHORING
Introduction

Special precautions must always be taken to make sure that cave-ins do not occur.

Special attention must always be given to:
1. The type of soil
2. Stability of adjacent rock
3. Other activities that might change the stability of the excavation
EXCAVATION
Excavation

- Excavations are any man-made cut, cavity, trench, or depression in the earth surface, formed by earth removal. Safety procedures apply to all open excavations that are made in the ground and include trenching.
TRENCHING
Trenching

- A trench is a particular type of excavation - where the excavation is deeper than it is wide (it also must be less than 15 feet wide).
Shoring

- Shoring is a structure such as a metallic, hydraulic, mechanical or lumber system that supports the sides of an excavation. It is designed to prevent cave-ins.
HAZARDS
Hazards

There are atmosphere-related dangers that would include

- low oxygen levels or the existence of flammables or combustible or toxic gases.
• instability of adjacent rock,
• adjacent activities,
• loose rock or
• potential water hazards.

When working in any excavation you must be alert to any changing condition.
Protection Systems

- Excavation Protective Systems are required for all excavations greater than 5 feet.

Excavation Protective systems include shielding,
- shoring,
- sloping
- or any combination...
Protective Systems

• A “means of egress” (escape) is required for trench excavations that are four feet or more in depth.
• Examples are stairs, ladders or ramps.
• Escape means for an excavation must be no more than 25 feet apart.