

Job Name \_\_\_\_\_ Foreman/ Serv. Tech \_\_\_\_\_ Date \_\_\_\_\_

## Excavations

Almost every month somewhere in the news you can read about a worker being injured or killed when a trench they were working in collapses. These injuries and fatalities are preventable with planning and proper execution of safety precautions. For the record, we've had several serious trenching incidents in recent years that could have caused serious injury or fatalities if certain circumstances had been slightly different.

Trench collapses occur without warning, regardless of the depth. The vast majority of trenching fatalities occurs in trenches 5- to 15-feet deep. These depths invite taking chances, and often times it is the good, safe-looking material that turns out to be the unsuspecting killer. But trench cave-ins don't have to happen. The following information can help you avoid these potentially deadly accidents.

Despite how strong or fast a person may be, they will never beat it out or pull themselves out of a trench in the event of a collapse. The soils can move at up to 40 miles an hour. And, a cubic foot of soil weighs between 74 and 110 pounds, depending on the type of soil and how moist it is. That soil will have a constricting effect on the person trapped. The harder they try to extract themselves, the greater the pressure applied to their bodies.

This trench box is in place to protect our employees. We use a ladder placed directly into the confines of the trench box so as not to expose our employees to additional hazards. Note the benched sides of the trench in addition to the added protection afforded by the trench box.



### General Requirements:

- Before beginning excavation, establish the locations of underground and overhead utilities and services. Contact utility companies and advise them before the start of excavation.
- Remove or support all surface encumbrances, as necessary, to safeguard employees.
- Employees working in trenches 4 feet deep or more must have an adequate and safe means of exit, such as ladders, steps or ramps available at no more than 25 feet of lateral travel.
- Do not permit employees to go underneath loads of lifting or digging equipment.
- When hazardous atmospheric conditions exist, or you can reasonably expect them to exist, test and control the atmosphere to prevent exposure levels.
- Employees must not work in excavations in which there is accumulated water unless they follow necessary safety precautions.
- Additional underpinning, shoring or bracing may be required when adjoining utility lines, foundations, sidewalks, and footings are endangered.
- Store spoils, equipment and other materials that can pose a hazard at least 2 feet away, or use effective retaining devices.
- Have a competent person on-site who is capable of identifying existing and predictable hazards and has the authority to take prompt corrective action.
- When employees work in trenches more than 5 feet deep, they must be protected from cave-ins by using an adequate protective system.
  - Always consider the hazards associated with any trench, despite the depth of the trench particularly in c-type soils.
- Extend trench boxes and shields to the bottom of the trench and no less than 18 inches above the vertical part of the trench face, except in certain cases.
- Do not allow employees in shields during their installation, removal or relocation.
- When portable trench boxes are stacked, provide attaching means to prevent them from separating.

Hill is committed to your safety. And with our *mutual commitment to SAFETY*, safety will take all workers home to their families. We ask that you watch out for your wellbeing and that of your co-workers.

