The purpose of this fact sheet is to inform the campus community about the hazards and safety controls associated with excavations. According to the Occupational Safety and Health Administration (OSHA), “Two workers are killed every month in trench collapses.”

What is an excavation?
An excavation is any man-made cut, cavity, trench, or depression in an earth surface formed by earth removal.

What is an trench?
A trench is a narrow underground excavation that is deeper than it is wide, and is no wider than 15 feet.

What are the dangers of trenching and excavations?
- Cave-ins and excavation collapses pose the greatest risk which lead to worker fatalities. Other hazards include hazardous atmospheres, falling loads, and falls.

How to protect yourself?
- DO NOT ENTER an excavation unless you are authorized and have received proper training. Excavations that are 5 feet deep or greater shall have a protective system, unless the excavation is made solely in stable rock.
- Use protective systems that are designed by a register professional engineer or that is based on tabulated data prepared and/or approved by a registered professional engineer for excavations that are 20 feet deep or greater.

What are protective systems?
- Sloping – a method of protecting employees from cave-ins by cutting back the excavation wall at angle that is inclined away from the exaction.
- Shoring – requires the use or installation of aluminum hydraulic or other types of supports to prevent the movement of soil and cave-ins.
- Shielding – also known as a trench box, protects workers to prevent soil movement and cave-ins.

What is a competent person?
- The OSHA standard requires that excavations are inspected daily and as conditions change by a competent person prior to worker entry ensuring the elimination of any excavation hazard.
- A competent person the individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangers to employees.
- The competent person is authorized to take immediate and prompt correction action to eliminate or control these hazards and conditions.

Trenching and Excavations Rules
- Keep all heavy equipment away from the edges.
- Keep all loads at least 2 feet from trench edges.
- Located underground utilities.
- Test for hazardous fumes, toxic gases, and low oxygen.
- At the start of each shift, inspection must be completed.
- Inspection is also required after rain fall.
- Never work under raised loads.
- Use ladders to access and egress all excavations greater than 4 feet (must be located within 25 feet of all workers).
- Never enter an excavation that has water in it.