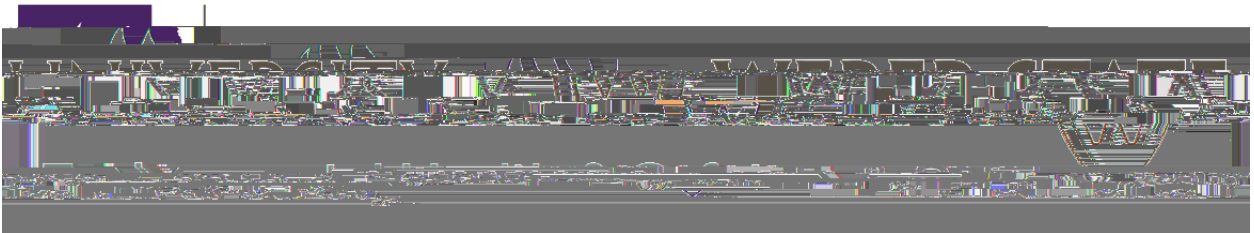


Weber State University

Excavation and Trenching Program

The Trenching and Excavation Standard is 29 CFR 1926 Subpart P



Published by the Safety and Risk Committee and
Environmental Health and Safety Office
3734 Dixon Parkway, Ogden UT 84403

Revision Date: January 2022

EXCAVATION & TRENCHING PROGRAM

Shoring – A structure that is built or put in place to support the sides of any excavation to prevent cave-ins.

Sloping – Sloping the sides of the excavation away from the excavation to protect employees from cave-ins. The required slope will vary with soil type, weather, and surface or near surface loads that may affect the soil in the area of the trench.

Support System – A structure such as underpinning, bracing, or shoring, which provides support to an adjacent c12 792 re

Responsibilities

Department: Departments are expected to maintain safe and healthy living, learning, and working environments for faculty, staff, students, and visitors to campus.

- Each department performing excavation work must appoint a “competent person(s)” to ensure compliance with this program.
- Departments must ensure that all persons designated as “competent persons” have attended an OSHA compliant “competent person” training.
- Departments must ensure that all persons entering excavations greater than four feet deep have attended awareness level training. Contact EHS for this training.
- Provide sufficient equipment to ensure safe operations.

Competent Person Responsibilities: Competent persons designated by the department will perform the following tasks once they have received the appropriate training.

- Be familiar with soil analysis and determine the class of soil for each excavation.
- Determine the appropriate protective system needed to prevent potential cave-in. Be familiar with protective systems and how to use them.
- Determine the appropriate methods to eliminate or control for all hazards, including protection from potential cave-in.
- Conduct site inspections in accordance with the requirements outlined in this program and maintain necessary documentation.
- Ensure employee training for all employees entering excavations greater than four feet deep.
- Ensure appropriate personal protective equipment is provided and worn.

Employees: Employees who work in or around excavation must:

- Follow the requirements of this program.
- Attend required training.
- Wear assigned personal protective equipment.

EHS: EHS will provide technical support, competent person and awareness level training, and oversight for this program. Involvement by EHS does not relieve the departments, supervisors, or competent persons of their individual responsibilities. EHS responsibilities for this program include:

- Develop, Implement, and administer the program.
- Training on the aspects of the program requirements and maintaining records.
- Serve as a technical resource.
- Provide guidance on the selection of protective systems.
- Evaluate the overall effectiveness of the program on a periodic basis and making appropriate changes as needed to assure the safety of personnel.

General Guidelines

Utilities and Pre-Work Inspection:

Prior to excavation the site shall be thoroughly inspected by the competent person to determine if special safety measures must be taken.

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Hazardous Atmospheres:

- The competent person will test the atmosphere in excavations over four feet deep before worker entry and continuously during work if a hazardous atmosphere exists or could reasonably be expected to exist (i.e. near stored hazardous substances, underground tanks, or gas pipelines).
- Workers will not be permitted to work in hazardous and/or toxic atmospheres. Such atmospheres include those with the following:
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EXCAVATION & TRENCHING PROGRAM

Hazards Associated with Water Accumulation:

- Employees shall not work in excavations that contain or are accumulating water unless precautions have been taken to protect employees against the hazards posed by water accumulation and the competent person has given prior approval. The precautions taken could include:
 - Special Support or Shield Systems
 - Water Removal Equipment
 - Safety Harnesses and Lifelines
- If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operation shall be monitored by a person trained in the use of the equipment.
- The competent person shall inform workers of the precautions or procedures that are to be followed if water accumulates or is accumulating in an excavation.

Protection of Workers from Falling Objects:

- Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of:
 - Scaling to remove loose material.
 - Installation of protective barricades, such as wire mesh or timber, at appropriate intervals on the face of the slope to stop and contain falling material.
 - Benching sufficient to contain falling material.
 - Removal of loose material a sufficient distance from the excavation that the material cannot roll or slide into the excavation.
- Excavation personnel shall not be permitted to work above one another where the danger of falling rock or earth exists.
- Employees shall be protected from excavated materials, equipment or other materials that could pose a hazard by falling or rolling into excavations.
- Protection shall be provided by keeping such materials or equipment at least 2 feet from the edge of excavations, by the use of restraining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.
- Materials and equipment may, as determined by the competent person, need to be stored further than 2 feet from the edge of the excavation if a hazardous loading condition is created on the face of the excavation.
- Materials piled, grouped or stacked near the edge of an excavation must be stable and self-supporting.

Inspection by Competent Person:

- The competent person for excavations shall conduct daily inspections of excavations, adjacent areas, and protective systems for evidence of a situation that could result in possible cave-ins, failure of protective systems, hazardous atmospheres, or other hazardous conditions.
- An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other

EXCAVATION & TRENCHING PROGRAM

removed from service. These materials or equipment shall be evaluated and approved by a registered professional engineer before being returned to service.

Support Installation and Removal:

Members of support systems shall be securely connected together to prevent sliding, falling, kickouts, or other potential hazards.

Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.

Individual members of support systems shall not be subjected to loads exceeding those which those members were designed to support.

Before temporary removal of individual support members begins, additional precautions shall be taken as directed by the competent person to ensure the safety of employees. These precautions

