

TOOLBOX TALK: TRENCHING AND EXCAVATION

Job or site _____

Date _____

Led by _____

Open with this

Nobody goes in the trench today until we have all heard this and the competent person has said it is inspected. If the box is not in, the trench is not open.

The talk

Soil is heavy. One cubic yard runs around three thousand pounds, and a wall failure drops several cubic yards at once. Being buried to the chest is enough to stop you breathing, because you cannot expand your ribs against that weight.

The trigger is five feet. Any excavation five feet or deeper needs a protective system: sloping the walls back, benching, shoring, or a trench box. The only exception is an excavation entirely in stable rock, which is rarer than people claim.

Under five feet still needs a competent person to look at it and decide. A four foot trench in wet, previously disturbed or sandy soil can and does collapse. Depth is not the only variable, and previously disturbed ground is the one that catches crews, because it is where the last utility went in.

The spoil pile goes at least two feet back from the edge, and so does everything else. Material, tools, the excavator tracks, the pipe waiting to go in. Weight near the edge is a surcharge load, and it is what turns a stable wall into a failing one.

Access. Any trench four feet or deeper needs a ladder, ramp or steps within twenty five feet of lateral travel from any worker in it. Climbing the shoring or the trench box is not access.

And the invisible hazard: air. Excavations can hold low oxygen, hydrogen sulfide from a sewer, or vehicle exhaust settling into the low spot. Anything four feet or deeper where a hazardous atmosphere could exist gets tested before entry, not after somebody feels strange.

One more thing that does not depend on depth: call 811 before you dig, and hand dig within the tolerance zone of the marks. Striking a gas line or a live service is the other way this work kills people.

Point at these before anybody starts

- The depth of today's excavation, measured, not guessed

- The protective system: slope angle, bench, shoring or box, and who checked it
- The spoil pile and the equipment position, at least two feet back from the edge
- The ladder, its position and whether it is within 25 feet of everybody in the trench
- The 811 locate marks and where we are hand digging
- Water in the bottom, cracks along the top edge, and any previously disturbed ground

The rules that apply

- Excavations 5 feet deep or more need sloping, benching, shoring or shielding unless they are entirely in stable rock.
- A competent person inspects the excavation daily, before each shift, and again after rain or any change in conditions.
- Keep spoil, material and equipment at least 2 feet from the edge.
- Trenches 4 feet or deeper need a ladder, ramp or steps within 25 feet of lateral travel.
- Test the atmosphere before entering any excavation 4 feet or deeper where a hazardous atmosphere could exist.
- Call 811 before digging and hand dig within the tolerance zone around marked utilities.

Ask the crew

- How deep is this trench, and who measured it?
- Who is our competent person, and when did they last walk this excavation?
- If a wall lets go while somebody is in there, what is the first thing we do? Nobody jumps in after them.

Close with this

Five feet means a system, every time. Two feet back from the edge. Ladder within twenty five feet. Inspected today.

Attendance

Everybody who was present signs, including subcontractors and anybody visiting the site.

	Print name and signature
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This talk is general safety information for a crew briefing, not legal advice and not a substitute for the training your employees are required to have. Standards are quoted for orientation only. Check the current text of the standard and your own state plan, which may be stricter than the federal rule.