

Trenching—Inspection

Explain dangers

Without regular and frequent inspection, you have no assurance that your sloping, shoring, or trench boxes are effective in protecting workers from a trench collapse.

Identify controls

Sloping, shoring, and trench boxes must be inspected regularly. Inspection is everyone's responsibility.

With hydraulic shoring, look for

- Leaks in hoses and cylinders
- Bent bases
- Broken or cracked nipples
- Cracked, split, or broken sheathing.

Report any of these conditions to your supervisor.

Check timber shoring before it's installed. Discard any damaged or defective lumber.

With timber shoring, check for

- Cracked or bowed sheathing
- Wales crushed where they join struts
- Loose or missing cleats
- Split or bowed wales
- Struts off level.

If wales show signs of crushing, this indicates structural problems and the need for more struts.

Make sure that shoring members are the size required by regulation for the depth of your trench and the type of soil.

Always check areas near shoring where water may have seeped in. The combination of water and granular soil can lead to washout. This undermines the trench wall and has killed and injured workers several times in the past.

In trench boxes, look for

- Damage and other defects
- Deformed plates
- Cracks in welds
- Bent or distorted welds in sleeves and struts
- Missing struts
- Bent struts
- Holes, bends, or other damage to plates.

During use, check the trench box regularly and often to make sure that it is not shifting or settling more on one side than the other. This can indicate movement of soil or water underneath.

If the box is shifting or settling, get out and tell your supervisor about it.

Inspect the ground around trenches for tension cracks. These may develop parallel to the trench at a distance of about one-half to three-quarters of the trench depth.

If you find cracks in the ground, alert the crew and double-check your shoring or trench box.

It's dangerous to overlook damage or defects in protective systems. Even if the job is short-term or almost finished, trenches can still cave in.

Whether protected by sloping, trench boxes, or shoring, trenches must be provided with ladders so that workers can enter and exit safely. These ladders must also be inspected regularly for damage. Ladders found to be defective must be taken out of service and replaced immediately.

Demonstrate

With your crew, inspect any sloping, shoring, and trench boxes on site. Check ground conditions nearby.

Refer to the appropriate regulations for more information (O. Reg 213/91, Part III (s. 222-242)).