**ACCESS & EGRESS FOR EXCAVATIONS**

- **A competent person must design all structural ramps.** Structural ramps used for access or egress of equipment must be designed by a competent person qualified in structural design.

- **A stairway, ladder, ramp or other safe means of egress must be located in trench excavations that are 4 feet (1.22 m) or more in depth so as to require no more than 25 feet (7.62 m) of lateral travel for employees.**

**Ramps must be:**

- Connected together to prevent displacement;
- Uniform thickness;
- Cleats on the bottom to prevent tripping, and;
- Designed to prevent slipping.

**Ladder Safety:**

- Job-made ladders must be constructed according to ANSI A14.4 – Safety Requirements for Job-Made Ladders.
- Ladders are to be used with caution around electrical lines, especially metal ladders, use only non-conductive ladders.
- Secure ladders to prevent displacement.
- Ladders extend 3-feet above excavation (shield).
ACCESS & EGRESS FOR EXCAVATIONS

The decision to choose a ramp, stair system or ladder for accessing and regressing from an excavation or trench depends largely on the allowable slope or angle that the sides (or ends) are cut back.

For example, in stable rock or with trench shields (boxes), where the sides are nearly vertical (between 75° and 90°), a ladder would be appropriate; ladders must never be used at angles less than 60°. Between 30° and 50° from the horizontal, use a stair system (job-made wood type or earth benched). Less than 20° from horizontal, a ramp can be safely used (unassisted) while maintaining an upright position.

Access & Egress Selection Guide