

Ladder Safety Guidelines

Personnel using ladders are to follow safe work practices for ensuring safety as well as Cal/OSHA regulatory compliance (Title 8 CCR 3277-3280). General safe practices that employees are to be trained on include (but are not limited to) proper ladder selection, inspection, and storage, and safe ladder use.

Criteria for Ladder Selection, Inspection, and Storage

A. Ladder Selection Criteria

NOTE: If elevated work involves moderate to heavy pushing, pulling, or lifting, use an aerial lift device (e.g., scissor lift or boom lift) instead. Where a ladder must be used for such tasks, fall protection may be necessary. Contact EH&S at (650) 723-0448 for more information.

Proper Size	<p><u>Stepladders</u>: Ladder must be long enough for the user to safely reach no higher than 3-4 feet above the ladder top. Stepladders longer than 20 feet shall not be used.</p> <p><u>Single/Extension Ladders</u>: Ladder must be long enough so that the highest standing level is four rungs down from the top. Singles ladders longer than 30 feet and extension ladders longer than 60 feet shall not be used.</p> <p>Ladders shall not be spliced together to create a longer ladder.</p>
Duty Rating	<p>Each ladder is labeled with its ANSI Duty Rating and the rating indicates the maximum safe load capacity of the ladder. A load includes the person climbing the ladder and the tools/equipment this person uses/carries. Minimum duty rating for ladders used at Stanford University is 250 pounds or “Heavy Duty.”</p>
Ladder Material	<p><u>Fiberglass</u>: Electrically non-conductive and the preferred ladder material for most uses.</p> <p><u>Aluminum</u>: Strong and lightweight but cannot be used near sources of electricity.</p> <p><u>Wood</u>: Electrically non-conductive when dry but is more sensitive to extreme weather (heat, cold, or moisture).</p>

B. Ladder Inspection Criteria

Prior to each use, inspect the ladder to make sure it is in good condition:

- Steps/rungs are not damaged and are free of oil, grease, or other slippery material.
- Non-slip feet of ladders are not damaged or worn.
- Ladder does not have any loose nails, screws, bolts, or nuts.
- Spreaders/locks are not damaged.
- Rails are not damaged, rotten, decayed, or warped.
- All manufacturer's labels are clearly legible.

Mark and remove from service any ladder that does not pass inspection.

C. Ladder Storage Criteria

- Store ladders in an area protected from direct sunlight and rain as well as extreme temperatures.
- Store ladders in a horizontal position with supports to prevent sagging.

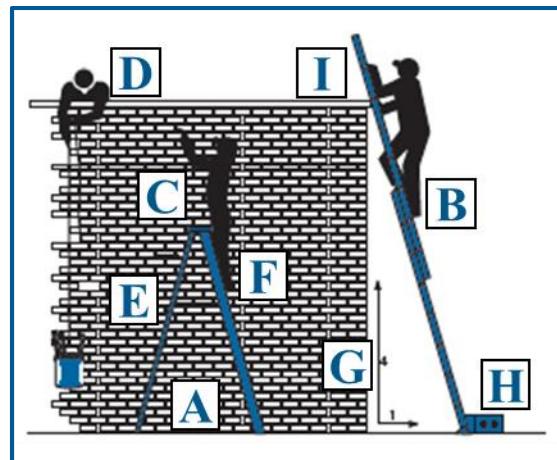
Criteria for Safe Ladder Use

Location

- Set up ladders away from where they can be accidentally struck or misplaced.
 - Use barricades to create a highly visible work zone.
 - Ladders shall not be placed in front of doors unless the door is locked, blocked, or guarded.
- ⚠ Never use metal ladders around exposed electrical equipment and wiring.
 - Keep ladders and tools at least 10 feet away from overhead lines at all times.
 - Contact Facilities Utilities Department at (650) 723-2281 for assistance if clearance is a concern.
- Keep access to and from ladders clear of mud, materials, or debris.

General Use

- [A] Set up ladders on a flat and stable surface.
 - Large and flat wooden boards braced under the ladder can level a ladder on uneven ground and prevent better footing on soft ground.
 - Ladders shall not be set up on boxes, barrels, or other unstable bases to gain height.
- Maintain 3 points of contact at all times when on a ladder.
 - [B] Face ladder and use both hands when climbing up/down the ladder.
 - [C] If needed, use hand/hip/chest to brace against a wall or structure while both feet are firmly set on ladder rung(s).
 - [D] Never hand carry tools. Use a tool belt, pulley system with bucket, or ask someone to hand you your tools.
- Ensure shoes are free of mud, grease, or other substances that could cause a slip or fall.
- Only one person at a time can be on a ladder. Work in teams of 2 or greater when possible.
- Team lift heavy/bulk ladders and identify the safest path to carry ladders prior to work.
- Never adjust or move a ladder while on the ladder.
- When working outdoors, do not use ladders in the presence of high winds.



Step Ladders:

- [E] Always fully open stepladders and ensure spreader bars are locked in place.
- Never climb the bracing on the back of a step ladder.
- [F] Do not stand/sit/work on the top cap or first step.

Straight/Extension Ladders:

- [B] Do not stand/work on the top three rungs.
- [G] Set ladder base 1 foot away from the wall for every 4 feet of ladder length.
- [H] Secure at its base to prevent it from slipping outwards. For ladders 16 feet or less, a person can brace the ladder at ground level.
- [I] When accessing a roof or other elevated location, extend the ladder 3 feet (or 3 rungs) above the edge of the roof/elevated location. Secure the ladder at the top to prevent it from slipping sideways.