



# Portable Ladder Safety Plan

Florida Institute of Technology (Florida Tech)

Environmental Health & Safety (EH&S)

150 W University Blvd, Melbourne, FL 32901

Email: [ehs@fit.edu](mailto:ehs@fit.edu)

Website: <https://www.fit.edu/office-of-environmental-health-and-safety/>

## REVISION HISTORY

---

Revision Number	Revision Date	Revised By	Description of Change
00	2019-11-06	Charles Cherrito	Initial creation and implementation.
01	2021-02-05	Selvin McLean	Document review; review of the federal register for updates

## CONTENTS

---

Purpose.....	1
Scope.....	1
Responsibilities.....	1
Definitions .....	2
Hazard Assessment.....	3
Safe Work Practices.....	3
Transporting Ladders.....	4
Ladder Storage.....	4
Inspections.....	5
Maintenance and Care.....	5
Reporting Concerns.....	6
Ladder Repair .....	6
Accident Investigation.....	7
Training & Recordkeeping .....	7
Fall Protection .....	8
References.....	9

## PURPOSE

---

It is the policy of Florida Tech to prevent injuries to all employees and ensure their safety at work. This Plan's purpose is to evaluate all slip, trip, and fall hazards related to the use of portable ladders and implement procedures and communication programs to protect workers from injury.

## SCOPE

---

This Plan applies to all Florida Tech employees and contracted employees in all areas where ladders are in use.

## RESPONSIBILITIES

---

### **Environmental Health and Safety (EH&S)**

EH&S maintains this plan and is responsible for overseeing compliance with this plan, and applicable regulations and policies. EH&S will provide consultation services and assistance with rule application, interpretation, program policies, and work practices. EH&S may also periodically review departments to ensure compliance with this plan, and applicable regulations and policies.

### **Department Supervisors**

Supervisors will periodically inspect their areas for slip, trip and fall hazards related to portable ladders, and continually conduct safety checks of work operations. They will enforce all safety policies and procedures in this Plan and will take defective ladders out of service.

### **Employees**

All employees will follow the procedures of this Plan and the instructions of their supervisor. They will report any unsafe or hazardous conditions or acts that may cause injury to either them or any other employees. Employees will properly care for and use portable ladders according to the procedures in this Plan and manufacturer's instructions. Additionally, they will avoid activities that could result in personal injury, injury to others and/or property damage.

## DEFINITIONS

---

### **Extension Ladder**

A non-self-supporting ladder that is adjustable in length.

### **Fixed Ladder**

A ladder that is permanently attached to a structure, building, or equipment.

### **Handrail**

A rail used to provide employees with a handhold for support.

### **Maximum Intended Load**

The total load (weight and force) of all employees, equipment, tools, materials, and other loads that could reasonably be anticipated to be applied to a walking-working surface (such as a ladder) at any one time.

### **Portable Ladder**

A ladder that can be readily moved or carried.

### **Qualified Person**

A person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to solve or resolve problems relating to the subject matter (in this application, portable ladder safety).

### **Rung, Step, or Cleat**

The crosspiece of a ladder on which an employee steps to climb up and down.

### **Stepladder**

A self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back.

### **Stepstool**

A self-supporting, portable ladder that has flat steps and side rails, a fixed height, no pail shelf, and does not exceed 32 inches in overall height to the top cap. A stepstool is designed so that an employee can stand on all the steps and the top cap.

### **Walking-working Surface**

Any horizontal or vertical surface on or through which an employee walks, works, or gains access to a work area or workplace location.

## HAZARD ASSESSMENT

---

Before a ladder is to be used on a work-site, supervisors should place consideration for performing a Job Hazard Analysis (JHA) to identify and address safety hazards that may be contributing factors to an accident such as potential slips, trips, falls, electrocution, and other hazards. Below are items to make note of during a JHA (all of which can be related to ladder safety).

- Slipping of the ladder base
- Slips and falls while climbing or working from a ladder
- Tipping sideways
- Excessive loading
- Damage to ladders and components
- Electrical power lines
- Heat sources
- Slippery floors
- Uneven or unstable surfaces
- Obstructions
- Pedestrian or vehicle traffic

## SAFE WORK PRACTICES

---

Employees must always follow these safe work practices when using a portable ladder:

- Employees must always face the ladder when climbing up or down.
- Employees must always use at least one hand to grasp the ladder when climbing up or down.
- Employees must not carry any object or load that could cause them to lose balance and fall when climbing up or down a ladder. Employees should transport materials in a tool belt or shoulder strap, or hoist materials up after climbing.
- Ladders must never be moved, shifted, or extended while in use.
- Ladders placed in passageways, doorways, driveways, or other locations where they could be displaced by other activities or traffic must be secured to prevent accidental displacement or guarded by a temporary barricade, such as traffic cones or caution tape, to keep activities and traffic away from the ladder.
- Employees must never stand on the cap or top step of a stepladder (except for stepstools).
- Employees must never tie or fasten together ladders or ladder sections to gain added length, unless they are specifically designed for this use.
- Ladders must never be placed on boxes, barrels, or other unstable bases to gain additional height.

## TRANSPORTING LADDERS

---

If possible, employees should carry ladders in pairs with one employee at each end. However, if employees must carry a ladder alone, they should balance the center of the ladder on their shoulder, keeping the front end above their head and the back end near the ground. Additionally, they should:

- Use caution when carrying a ladder around corners.
- If a ladder must be transported in a vehicle, it should be secured with ties to prevent it from moving or falling off during transport.

## LADDER STORAGE

---

Ladders will be stored in the following manner:

- Store all ladders in an area sheltered from exposure to excessive heat, moisture, chemicals, or other elements that would lead to premature deterioration or to damage.
- Store wood ladders affected by exposure to heat and dampness in a well-ventilated area.
- Store straight and extension ladders horizontally on racks or hooks with support points at the top, middle, and bottom of the ladder to prevent sagging and warping.

## INSPECTIONS

---

All ladders will be inspected before initial use in each work shift, and more frequently as necessary, to identify any visible defects that could cause employee injury. A qualified person will inspect ladders for visible defects periodically and after any incident that could affect their safe use. All ladders will be inspected for:

- Shake
- Wane
- Compression failures
- Decay or corrosion
- Side rail dents or bends
- Damage to rung-to-side-rail connections
- Damage to hardware connections
- Steps and rungs in good repair and free of mud, grease, oil, or sticky substances
- Rungs and steps parallel, level, and evenly spaced
- No cracks or splits in side rails
- Metal parts properly lubricated
- Rope on extension ladders not worn or frayed
- Spreaders or other locking devices in place and working properly
- No splinters, sharp edges, or other puncture or laceration hazards
- Safety feet solid and in place
- Metal ladders free of dents and bent parts
- Hardware connections secure, hardware in good condition
- Other irregularities

## MAINTENANCE AND CARE

---

All ladders will always be maintained in good condition. Doing so will allow for the decreased chance that an accident will occur. The following maintenance and care procedures will be implemented during each work shift:

- Keep joints between steps and side rails tight.
- Ensure all hardware and fittings are securely attached.
- Ensure moveable parts operate freely without binding or undue play.
- Replace frayed or badly worn rope.
- Keep safety feet and other auxiliary equipment in good condition to insure proper performance.
- Keep ladder rungs and steps free of grease, oil, ice, and other debris.
- Lubricate metal bearings of locks, wheels, pulleys, and other moving or adjustable parts at regular intervals depending on frequency and severity of use.



## REPORTING CONCERNS

---

All employees must report safety concerns to their supervisor immediately. If a ladder does not pass inspection, has questionable capabilities, or is being used inappropriately, the employee **MUST** report these concerns to their supervisor immediately.

A ladder that has not passed work shift inspection shall be tagged “**Do Not Use**” and prohibited from use. See the “**Ladder Repair**” section for repairing a ladder that has not passed inspection.

## LADDER REPAIR

---

A ladder that has not passed inspection or that may be damaged in some way from an incident will either be discarded or repaired. Improvised ladder repairs are prohibited.

Ladders needing repairs are subject to the following rules:

- Portable ladders with structural defects—such as broken or missing rungs, cleats, or steps, broken or split rails, corroded components or other faulty or defective components—will immediately be marked defective or tagged with “Do Not Use” or similar language and shall be withdrawn from service until repaired.
- Ladder repairs must restore the ladder to a condition meeting its original design criteria before the ladder is returned to use.
- A qualified person must perform or supervise all ladder repairs that affect the structural integrity of the ladder.

## ACCIDENT INVESTIGATION

---

All incidents that result in injury to workers, as well as near misses, will be reported and investigated. Investigations will be conducted by the area supervisor and EHS as soon after an incident as possible to identify the root cause and means of prevention to eliminate the risk of reoccurrence.

The supervisor will ensure that a [Safety Incident Report](#) has been completed and submitted to [ehs@fit.edu](mailto:ehs@fit.edu) as soon as possible.

In the event of an incident that results in serious injury, this Plan will be reevaluated to determine if additional practices, procedures, or training is necessary to prevent future incidents.

## TRAINING & RECORDKEEPING

---

Each employee will be initially trained prior to beginning an assigned job task using ladders. Employees will be retrained as necessary to maintain their understanding and knowledge on the safe use of portable ladders (EHS recommends annually).

Retraining will occur when new ladder types are introduced into the workplace, following an accident involving portable ladders, or when it becomes apparent that an employee does not have the knowledge or understanding to use portable ladders safely.

All training records shall be retained for each employee. When Departments offer any training outside the Florida Tech's shared electronic system (e.g. in-person, off-site, etc.), they shall provide completed training documentation to the EHS department. All trainings conducted by Departments shall be in accordance with the [Florida Tech Safety Training Policy](#).

## FALL PROTECTION

---

Fall protection is not required for employees climbing or working on portable ladders. Neither the ladder standard (29 CFR 1926, subpart X) nor the fall protection standard (29 CFR 1926, subpart M) requires fall protection for workers while working on portable ladders.

However, fall protection is required for fixed ladders and stairways under [OSHA's 29 CFR 1926.1053\(a\)\(19\)](#). More information can be found in the [Florida Tech Fall Protection Plan](#).

## REFERENCES

---

[OSHA 29 CFR 1910.23: Walking-Working Surfaces \(Ladders\)](#)