



# LADDER SAFETY PROGRAM



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# **Quick Start**

Misuse of and falls from ladders consistently rank in the highest causal factors for work-place injuries. CalOSHA has numerous ladder safety regulations that must be adhered to for assuring compliance and safe-work activities when using ladders. The University of California, Berkeley (Berkeley) has developed this Ladder Safety Program to manage the safe selection, procurement, use of and safe work practices, inspection, inventory tracking and record keeping of all ladders.

This **Ladder Safety Program** applies to any department on campus, at field stations, or on leased property where any type of ladder three (3) feet or more in length/height is used.

Roles and responsibilities for safe use of ladders by <u>employees</u> (including temporary employees and graduate students performing research related activities in field stations and remote research facilities) are detailed. Roles and responsibilities for <u>Owner Departments</u> that purchase and maintain ladders are also detailed.

The department owning the ladders is responsible for the **proper selection of ladders** to be kept in their **ladder inventory** based upon an assessment of work tasks. In addition, Owner Departments are responsible for providing **training** to their personnel who use ladders, for **keeping the records** of training completed, and for **performing annual inspections and maintenance** of all ladders under their ownership/control.

Ladder users are required to follow <u>safe-work procedures</u>, to alert Owner Department management whenever they discover a damaged ladder and to follow any specific safe work practices developed by their department concerning ladder use.

# **Purpose/Introduction**

The use of ladders presents significant workplace hazards. The California Bureau of Labor Statistics states that in 2018, 15 people in California died from falls from ladders. Unsafe ladder use, such as using the wrong kind of ladder or upsetting the ladder's balance by leaning too far from its center of gravity, has resulted in injuries to University employees, as well as CalOSHA citations and fines assessed to UC Berkeley Departments.

The University of California, Berkeley (Berkeley) developed this program to describe all aspects of ladder safety including a ladder safe-use policy, personnel accountability, hazard assessment and proper ladder selection, safe work practices, training requirements, and record keeping.

# Applicability/Scope

This Program applies to any use of ladders three (3) feet in height/length or greater by employees of the University as part of their normal work activities. This includes temporary employees and graduate students performing research related activities in field stations and remote research facilities.

# Definitions

**"A" Frame ladder** — A self-supporting portable ladder, non adjustable in length, with flat steps and hinged base. Also known as a <u>Step ladder</u>.

Articulating ladder — Also known as a "Combination ladder", "Sectional ladder" or "Multi-position ladder", this is a portable ladder capable of being used either as a stepladder, a single ladder or an extension ladder. It may also be capable of being used as a trestle ladder or a stairwell ladder.

**Cage** — A cage is a guard that may be referred to as a cage or basket guard, which is an enclosure that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder.

**Cleats** — Ladder cross pieces of rectangular cross section placed on edge upon which a person may step while ascending or descending. Also known as ladder "rungs".

**Combination ladder** — Another name for "Articulating Ladder". See definition above.

**Double Front or Twin Front ladder** — A self-standing ladder that is designed to allow both sides of the ladder to be climbed safely.

**Feet** — The component of a ladder support that is in contact with the lower supporting surface.

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

**Grab Bars** — Grab bars are individual handholds placed adjacent to or as an extension above ladders for the purpose of providing a safe hand-hold above the 'top' of the ladder.

**Individual-Rung Ladder** — A fixed ladder, each rung of which is individually attached to a structure, building, or equipment.

**Ladder Stand** — A mobile fixed size self-supporting ladder consisting of a wide flat tread ladder in the form of stairs. The assembly may include handrails but does not include a platform.

**Multi-position ladder** — Another name for "**Articulating Ladder**". See definition above.

**Rungs** — Ladder crosspieces upon which a person may step while ascending or descending. Rungs are usually 'round' in cross-section, while "cleats" usually are rectangular in cross-section. See definition of "Cleats" above.

**Sectional ladder** — Another name for "**Articulating Ladder**". See definition above.

Sections — as related to a "Sectional ladder"

- *Bottom or base section*: the lowest section of a non-self-supporting portable ladder.
- *Top or fly section*: the uppermost section of a non-self-supporting portable ladder.
- *Middle or intermediate section*: the section between the top (fly) and bottom (base) sections of a non-self-supporting portable ladder.

**Single ladder** — A non-self-supporting portable ladder, non adjustable in length, consisting of one section.

**Side rails** — The side members joined at intervals by rungs, steps, cleats, or rear braces.

**Step stool (ladder type)** — A self-supporting, foldable, portable ladder, non-adjustable in length, 32 inches or less in size, with flat steps and without a pail shelf, designed so that the ladder top cap as well as all steps can be climbed on. The side rails may continue above the top cap.

**Step ladder** — Also known as an "A" Frame ladder. See definition above.

**Top Cap** — The uppermost horizontal member of a portable step ladder or step stool.

# **Roles/Responsibilities**

#### Ladder Users

Every ladder user:

- Is trained on and applies <u>Ladder User's Safe-work Rules</u> for ladder use outlined in this program.
- Always selects and uses a ladder in a safe manner.
- Inspects ladders before use.
- Alerts Owner Department Management when ladders need repair/replacement.
- Assesses work to determine if fall protection should be worn and seeks alternative access methods instead of ladders if need be.
- Refuses to use a ladder if they think it is unsafe and instead uses a more safe method such as a scaffold, lift pod or bucket truck.

#### **Owner Department**

The department owning the ladders must:

- Inspect annually and maintain all ladders in their control/ownership.
- Render unusable and then dispose of any ladders that are not repairable.
- Provide training to all personnel using their ladders as required by the "Training" section of this Program.
- Keep attendance records of all training.
- Assure ladder work-tasks are evaluated for hazards and that work tasks requiring fall protection to be worn are identified.
- Provide alternative access when a ladder user determines use of a ladder is unsafe due to required work tasks.

#### EH&S

The EH&S Ladder Safety Program Manager:

- Works with Berkeley Risk Management Department, Procurement Department and the Owner Department to determine proper ladder selection, stocking and safe-work practices unique to the Owner Department's work activities.
- May provide training and periodic audits to assist Owner Departments in Ladder Safety Program compliance.
- Maintains and updates this program as need dictates, or compliance codes change.

# Types of Ladders, Selection and Duty Ratings

#### **Selection/Procurement of Ladders**

Ladders are designed and constructed to safely hold up to a specific amount of weight. Ladders come in five different Duty Ratings identified by their "Type". The Duty Rating is defined as the maximum safe load capacity of the ladder. A person's fully clothed weight plus the weight of any tools and materials that are carried onto the ladder must be less than the duty rating. Berkeley requires at minimum the strength of a "Type II" ladder for any work activities where ladders are used for elevated work projects where the user is not handling large or heavy objects during ladder use.

All Maintenance/Trades are recommended to use "Type I" or stronger ladders for their work activities. Owner Departments that have maintenance/trades activities are required to purchase and use "Type I, Type IA or Type IAA" ladders based upon required strength for safe work by their workforce. Research and other Academic Departments not doing these types of activities may optionally inventory and use Type I or Type II ladders. Purchase and use of "Type III" ladders should be avoided as their duty rating is too light and they are likely to fail before their useful life expectancy, and with potentially injurious results for the ladder user.

#### **Duty Ratings**

Duty Ratings are described in terms of pounds, such as a "300 lb. Duty-Rating Type IA" ladder which is designed for extra heavy duty professional use where the total weight on the ladder does not exceed 300 pounds.

Ladders are also built to handle the demands of various applications. For example, a ladder used frequently on a construction site by larger/heavier workers should typically be stronger and have a corresponding higher Duty Rating than a ladder used by a lighter-weight person for infrequent 'light' overhead work.

The American National Standard Institute (ANSI) has established the "Duty Rating" followed by CalOSHA. This rating identifies which portable ladder is intended for the conditions under which the ladder can be safely used. The Duty Rating system is summarized below.

Ladder Duty Rating or "Type"	Capable of Supporting	Rated Use	
ΤΥΡΕ ΙΑΑ	375 lbs. Special Dut		
ΤΥΡΕ ΙΑ	TYPE IA300 lbs.Extra Heavy		
ΤΥΡΕ Ι	250 lbs. Heavy Duty Industri		
TYPE II	E II 225 lbs. Medium Duty Comme		
TYPE III	200 lbs.	Light Duty Household	

#### Ladder Designs and their Selection for Use

Each of these designs is available in any Ladder **Duty Rating**.



Articulating, Combination, Multi Position, or Sectional Ladder

An articulating ladder is a non-self-supporting or self-supporting portable ladder, adjustable or non-adjustable in length. It consists of two or more sections of ladder that may be combined to function as a single ladder. The overall length of the assembled sections designates its size.

They can be used to access areas above uneven surfaces.

#### **Extension Ladder**

An extension ladder is a non-self-supporting portable ladder, adjustable in length. It consists of two or more sections that travel in guides or brackets, which are arranged to permit length adjustment. An extension ladder's size is designated by the sum of the lengths of the sections measured along the side rails. It cannot exceed 44 feet.

They can be used to access varying heights.





#### **Extension Trestle Ladder**

A stepladder that is a self-supporting portable ladder with an extension. They are available in "twin front" or "double front" design so they can be climbed from both sides.

They can be used for operations in theater and stage work or to get to equipment above drop ceilings

#### **Fixed Ladder**

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

The type of ladder shown is used to access the top of facilities for maintenance.





#### Individual Rung Fixed Ladders

A type of fixed ladder that does not have side rails. Each rung is permanently attached to the surface of a wall, machine, or piece of equipment.

These ladders are used to access and egress facilities like manholes and crawl spaces.

Platform Step Ladder, Single entry work platform A step ladder with a small horizontal platform at the top. These can be used to work safely at elevated locations using both hands.





#### Single Ladder

A single ladder is a non-self-supporting portable ladder, similar to an extension ladder, non- adjustable in length, which consists of only one section. Its size is designated by the overall length of the side rail and cannot exceed 30 feet.

These can be used to access heights within the limit of their height.

#### **Specialty Ladders**

Any type of ladder that is constructed for specific use on unique devices used for research or any other purpose

Example uses of this Ladder include: The ladder shown is a shelf ladder that is attached to or used to access shelves. Another type of 'specialty ladder' is a rolling "Library Ladder" set on rails attached to shelving, etc.





#### Step Ladder

A step ladder (also known as an "A" frame ladder) is a self-supporting portable ladder, non-adjustable in length, having flat steps and a hinged back. It is measured along the front edge of the side rails. They are available in "twin front" or "double front" design so they can be climbed from both sides.

These can be used to access heights within the limit of their height.

#### Step-to-Straight Ladder

Ladder can convert quickly from a stepladder to a push-up extension ladder. They are equipped with rung lock, utility-style safety shoes, and a standard pole grip.

They can be used as either a self-supporting or non-self-supporting ladder.





#### **Tripod Industrial Ladder**

Tripod Step Ladders are designed to be used in construction and maintenance activities where a 4-leg step ladder would have limited access or require the ladder user to work off to one-side of the ladder.

These should be purchased/used for maintenance and construction work where a single pole leg can be placed amongst equipment or other obstructions and allow safe-work access for the ladder user to face the work area not having to work off to one side.

#### **Tripod Orchard Ladder**

Tripod orchard ladders are designed to be used on soft and uneven terrain therefore they lack spreaders, locking devices, steel points, and safety shoes.

These should only be purchased and/or used for outdoor work in pruning and accessing tree canopies.



#### Ladder Accessories and Their Uses



#### Cable hook and V-ring assembly

Used to secure the top of a single ladder or extension ladder to a pole, pipe or other 'rounded' vertical support structure.

#### Cage (Fixed Ladder Cage)

Ladder cages provide fall protection and are required by code on fixed ladders over 20 feet high. The base of the cage must be at 7' above the base surface.





#### Caster Brackets

Weight sensitive brackets with casters that allow a ladder to be rolled on a floor when there is no load on the ladder.

Cinch (Ladder Cinch or Ladder Tie) Used as a quick tie down for use on poles or similar structures.





Jacks (Ladder Jack)

Attaches to rungs of non-self supporting ladders to allow the use of ladders as supports for scaffold planks. Fall protection is required.

Ladder Jacks and Guardrail Systems

<u>Here is a video</u> that describes one manufacturer's setup and use of guardrails and tool hangers for use with ladder jacks, ladder planks and working on roofs.





Levelers (Ladder leveler)

Two base attachments that are used to level the ladder on a sloped support surface.

#### Pail Shelf

A pail shelf attaches to an existing shelf to provide relatively stable locations for tools and pails or buckets.





#### Paint can hangers (for extension ladders)

Are designed to be easily attached and removed from a ladder in order to hang a bucket. There are load limits, as determined by the manufacturer, for both the ladder rail and the hanger. They can be used to temporarily hang other supplies or tools as long as they are within the load limits of the ladder and hanging bracket.

Platform (Ladder Platform)

Kicks out of the way easily for climbing and is used as a platform to stand on.





#### Stabilizer

Attaches to the ladder rungs or rails to stand the ladder off from a surface or stabilize the ladder around an obstruction such as a pipe, a gutter or a window.

#### Tray – Multipurpose Use

Made for straight or stepladders. The texture is intended to provide a place to put small parts such as bolts, nuts, wire-nuts and small tools in addition to pails.





#### **Tool Belt**

Worn by ladder users to hold tools and project materials securely attached to their waist so that they may ascend and descend ladders using both hands.

**Tool Lasso** 

Secures awkward tools to a belt to allow safe ladder climbing with needed tools.



# **Program Requirements/Procedures**

#### **Owner Department Requirements**

The Department owning ladders designates the **Ladder Program Administrator(s)** responsible for the following actions

- Assures that ladders purchased/used in the department are code-compliant and appropriate for the needed safe-work tasks.
- Consults with the EH&S Ladder Safety Program Manager as needed to assess proper ladder use and procurement specifications.
- Coordinates with EH&S to provide ladder safety training, or provides ladder training themselves (by JSA or other presentation), to all department personnel who use ladders. In either case, training must detail the contents of this program including ladder user's safe- work rules, inspections, etc.
- Periodically audits departmental compliance with the Program.
- Conducts ladder inspections as part of the annual "shop safety inspection" process.
- Implements the following ladder inspection/tracking requirements:
  - Develops ladder-identification system and uniquely numbers each ladder owned by the department for inventory/tracking purposes. (See <u>Attachment 1</u> for the recommended numbering system.)
  - Inspects ladders frequently for damage and documents inspections per inspection form/criteria in program.
  - Locks or tags damaged ladders to insure they will not be used until repaired.
  - Renders damaged ladders that cannot be repaired unusable by cutting them into pieces or other destructive means, and then assures proper disposal of them.
  - Assures that any wooden ladders in use are not painted with any color other than clear wood sealer to allow detailed inspection of wood grain and quality. Wood ladders that are painted or not clear-finished with the wood grain visible for inspection must be destroyed.
  - If not already done so by the manufacturer, mark portable metal ladders with the words.
    CAUTION: DO NOT USE AROUND ELECTRICAL EQUIPMENT

# Ladder User's Procedures

#### Ladder User's Safe-Work Practices

• Select a ladder that is the proper length and **<u>duty rating</u>** for the intended work.

NOTE: A leaning-ladder must extend at least 36" above the edge of a roof/mezzanine when properly installed. A step ladder must be tall enough so that you don't have to stand on the top or top two rungs of the ladder to access your work.

- Do not use electrically conductive (e.g. aluminum) ladders for electrical work or near live electrical parts.
- Inspect the ladder for broken or defective parts prior to each use. This inspection may be documented to satisfy the Cal/OSHA requirement for frequent inspections by using <u>Attachment 3</u>
- Remove damaged or defective ladders from use and notify department management of the problem ladder.
- Do not place ladders where they can be accidentally struck or displaced.
- If the ladder is used in an area where anyone could walk under it, the area must be cordoned off with a visual barrier such as yellow caution tape to alert pedestrians to the hazard of something falling from the ladder.
- Ladders must not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.
- For leaning or extension ladders, tie, block, or otherwise secure while in use.
- Do not splice ladders together.
- Always face the ladder while ascending and descending.
- Do not stand on the top three rungs of a single ladder or an extension ladder unless there are members of the structure that provide a firm handhold or personal fall protection is used.
- Do not stand on the top cap and top two steps of a step ladder.
- If working outside of the ladder's footprint, or when standing on the upper-most parts of the ladder as noted above, use an appropriate fall protection system as described in the EH&S <u>Fall</u> <u>Protection Equipment and Inspection</u> Fact Sheet. Do not place planks for walking on the top cap or any other part of a ladder.
- Do not use the X-bracing or other structures on the rear section of a stepladder for climbing unless the ladder is designed to be climbed from both sides. See **Extension Trestle Ladders** and similar.
- Make sure that a stepladder is properly set up and that the spreader is locked in place before use.
- Do not use the stepladder as a lean-to ladder.

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- Always use a tool belt and other 'hands-free' carrying devices when ascending and descending a ladder.
- When working aloft, secure tools and supplies so they cannot fall from the ladder.

Fall Protection – When must it be used?

Ladders may be used **WITHOUT** the user wearing personal fall protection when a leaning or extension ladder can be tied-off and stabilized to a permanent structure, or a step ladder is used on a level firm surface, and then work is done within the following specific activities:

- 1. When using the ladder to gain access from one level to another without carrying anything in your hands.
- 2. When using a ladder for access to a work area where work is conducted while standing on the ladder, provided the user can ascend and descend using both their hands during the entire up/down movement on the ladder.
- 3. When working aloft on the ladder provided both of the user's feet are stationary on one rung and the work area requiring two-handed work is within the ladder's 'footprint' (i.e. no reaching beyond the base legs of the ladder with both hands).
- 4. When the user can use three-point contact (both their feet plus one hand) for stability when reaching and working outside the ladder's 'foot print' using only one 'free' hand.
- 5. When the ladder user's feet are below the top three rungs of a leaning single/extensionladder, or are below the top two steps and top cap of a step ladder.
- 6. When doing elevated 'fine two-handed work' within the 'footprint' of the ladder, where a user is using both hands to conduct light-weight work without the use of power tools. (Example: twisting a wire nut on two to three 12-gage or smaller wires, hammering a nail into wood, or unscrewing a light bulb and installing a replacement light bulb.)
- 7. When using a small cordless power tool such as a hand-drill with a ¼" bit (or smaller) that is not likely to cause imbalance should the power tool bind during use.
- 8. When using a corded power tool within the 'footprint' of the ladder using only one hand to control the tool, and otherwise having 3-point contact on the ladder.

Fall protection must be used in all other ladder-use situations unless the Owner Department can demonstrate that the planned work activities are equivalently safe to the above noted requirements. If personal fall protection is used it must be attached to an anchor point that has been inspected by a Cal/OSHA certified Scaffolding Inspection and Testing person (SIT), or using a temporary anchor device such as an elbow strap.

Alternatives to using fall protection include temporary scaffolding with appropriate railings, the use of a "Lift Pod", the use of Genie lifts or bucket trucks, etc., and should be considered before using ladders in such situations.

If alternatives are unavailable or not feasible, the employee must use fall protection devices as described in the EH&S Fact Sheet, **Fall Protection Equipment and Inspection**. Training is required to use fall protection equipment. Contact EH&S to schedule fall protection training if needed.

Housekeeping

- Clear debris and equipment that could cause a slip, trip, or fall from working areas around the ladder.
- Prevent equipment and supplies from falling on other people.
- Set up ground cloths if needed.
- Cordon off work areas using yellow caution tape to keep casual passersby out of the work area.

# **Training Requirements**

The Department owning the ladders has the option of providing ladder user training from:

- A training provider outside the University,
- Providing training from within the department, or
- Ladder Use and Fall Protection Training provided by EH&S. Contact EH&S at (510) 642-3073 to be directed to the EH&S training provider.

Irrespective of the source, the contents of and safe-work procedures outlined in this program are part of any ladder safety training. Training is documented and kept in a readily accessible location by the department designee for access reference as needed by Department management, EH&S, or regulatory agency (e.g. CalOSHA).

#### **Owner Department's Ladder Program Administrator Training**

Program Administrators are trained on their roles and responsibilities in the management/maintenance of the requirements and ladder inspections outlined in this program.

#### **Ladder Users Training**

As part of their work activities, ladder users receive documented training once on the contents of this program and the general safe-work procedures it contains. In addition, site-specific or task- specific safe-work orientation/tail-gate may be needed in the use of ladders for unusual operations. Annual review of the general requirements and safe-work rules of this program is appropriate for tailgate or periodically scheduled safety meetings.

#### **Record Keeping Requirements**

**Department Requirements Training Records** 

**Ladder User and Ladder Program Administrator** — Retain records for ten years after the person has retired or left University employment.

#### **Equipment Inspections**

**Annual inspections** — Keep inspection reports for the past three years. May be included as part of the Annual Shop Inspection process.

**Frequent Inspections** — Cal/OSHA requires "Frequent Inspections". Their definition of frequent is "more than twelve times per year."

# **EH&S Requirements**

EH&S retains the following indefinitely:

- Records of annual shop inspections that include ladders
- Records of training provided by EH&S and other entities
- Historical documents and revisions of the Ladder Safety Program

# References

#### CalOSHA:

- Stairways and Ladders
- Ladders, General
- Use of Ladders
- Fixed ladders
- Use of Fixed Ladders Ladders
- Window Cleaning

# ATTACHMENTS

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#### Ladder Identification Numbering System

A ladder identification number (or other means of unique identification) should be permanently attached to or marked on the ladder. The structure of the ladder cannot be modified in any way to affix the identifying number to the ladder. Allowed identification methods include attaching a permanent tag to a part of the ladder where it will not interfere with its safe use; using a permanent marker on the underside of the first step of a step ladder to write the identifying number on the ladder; affixing a permanent label to the underside of the first step, a top cap, a side rail, etc. where it would not interfere with the safe use of the ladder, or impede visual inspection of the ladder, etc.

Recommended Identifying Numbering System (see table on next page)

Separate each Digit Series in Identification Number with a hyphen (-).

- First Digit Series: First Letter of the Owner Department's Name
- **Second Digit(s):** Location or Shop Identification (where the ladder is kept)
- Third Digit(s): Duty Rating of the Ladder
- **Fourth Digit(s):** The physical type of ladder
- **Fifth Digit(s):** Length or maximum height in Feet
- Sixth Digits: Identifying Number, Sequential Number (two digits)

**Examples of Unique Ladder Identification Numbers** 

Fourth 16' Step Ladder with a duty rating of Type 1A kept in the Utility Shop at FS:

#### F-US-1A-ST-16-04

Example Identification Number for the fourth, 16' Step Ladder, with a duty rating of Type 1A, kept in the Utility Shop, at PP-CS:

#### P-U-1A-ST-16-04

Recommended Identifying Numbering System Separate each Digit Series in Identification Number with a hyphen (-)					
<u>First Digit Series</u> First Letter of the Owner Department's Name (example below)	<u>Second Digit(s)</u> Location or Shop Identification where ladder is kept (examples below)	<u>Third Digit(s)</u> Duty Rating of the Ladder	<u>Fourth Digit(s)</u> The physical type of ladder	<u>Fifth Digit(s)</u> Length or maximum height in Feet	<u>Sixth Digit(s)</u> Identifying Number, Sequential Number (two digits)
A = Athletics C = Chemistry	MR148 = Mech. Room 148	1AA = Type 1AA Ladder	A = Articulating, Sectional or Multi- position Ladder	3	01
E = EERC @ RFS EHS	MS = Metal Shop CS = Carpentry Shop	1A = Type 1A Ladder	E = Extension Ladder F = Fixed Ladder	6	02
M = MCB F = Facilities Services		1 = Type I Ladder	L= Leaning or Single or non-self- supporting	8	03
R = RSSP		2 = Type II Ladder	P = Platform Ladder SP = Specialty Ladder	10	04
			SS = Step to Straight Ladder	12	05
			ST = Step Ladder	14	06
			TE = Trestle-extension	16	07
			TI = Tripod Industrial Ladder	20	08
			TO = Tripod Orchard Ladder	Etc.	Etc.

## **Inventory Sheet**

Department:	Inventory Date:
Shop:	Shop Inventoried By:

## Ladder Inventory by Duty Rating, Type and Length

Duty Rating ( <u>Use ID code Attach.  1</u> )	Physical Type ( <u>Use ID code Attach. 1</u> )	Length in Feet	Quantity

Accessory Type (Describe)	Quantity

#### Ladder Inspection Checklist

Department:			Date:	
Shop:	Inspected By:			
If any of the answers are NO, remove the	ladder from service a	nd tag or mark it	as "out of service" until it i	s repaired or destroyed.
List Ladder(s) by their Identification Number	Did the lac inspectio compare inspection belo	dder pass on when d to the n criteria ow?	If not, wha o Tagged out fo o Removed and	t is ladder status? or repair l destroyed
	YES	🗆 ΝΟ	TAGGED	
	YES		TAGGED	
	□ YES	🗆 NO	TAGGED	
	□ YES		TAGGED	
	□ YES		TAGGED	
	YES		TAGGED	

- Feet are intact and grip solidly
- Steps / Rungs are clean and free of dust, oil or other surface contaminants.
- Steps/Rungs are secure to rails
- Ladder has unique Berkeley Identification Number
- Hinges are secure
- Ladder is not made of wood
- Locking mechanisms are intact
- Rails are not cracked or separated from feet, hinges or rungs
- For Articulated and Step ladders, the two front legs are the same length and the two rear legs are the same length

- Labels are intact and readable
- Ladder is not painted
- Extension Ladder: Locks are in operable condition
- Extension Ladder: Pulleys are secure and operable
- Extension Ladder: Rope secured to attachment points and in good condition
- Extension Ladder: The sliding section(s) should overlap each other by at least:
  - 3 feet on ladders up to 32 feet long.
  - 4 feet on ladders 32 36 feet long.
  - 5 feet on ladders 36 48 feet long.
  - 6 feet on ladders longer than 48 feet
- Accessories (leg levelers, paint shelves, stand-off shelves) are in good condition

#### Safe Work Practices for Leaning and Extension Ladders

Before you use the ladder

• Select a ladder that is the proper length and "duty rating" for the intended work.

NOTE: a leaning-ladder must extend at least 36" above the edge of a roof/mezzanine when properly installed. A step ladder must be tall enough so that you don't have to stand on the top two rungs of the ladder to access your work.

- Do not use electrically conductive (e.g. aluminum) ladders for electrical work or near live electrical parts.
- Inspect the ladder for broken or defective parts prior to each use. This may count as a visual monthly inspection, or may be documented using <u>Attachment 3</u> as part of the annual shop safety inspection.



- Remove damaged or defective ladders from use and notify department management of the problem ladder.
- Do not place ladders where they can be accidentally struck or displaced.
- Do not splice ladders together.

#### While you are using the ladder

- If the ladder is used in an area where anyone could walk under it, the area must be cordoned off with a visual barrier (such as yellow caution tape) to alert pedestrians to the hazard of something falling from the ladder.
- Always face the ladder while ascending or descending.
- If working outside of the ladder's footprint, or when standing on the upper-most parts of the ladder as noted above, use an appropriate fall protection system as described in the EH&S <u>Fall Protection</u> <u>Equipment and Inspection</u> Fact Sheet.
- Do not place planks on the rungs of a ladder.
- When working aloft, secure tools and supplies so they cannot fall from the ladder.
- For leaning or extension ladders, do not stand on the top three rungs unless there are members of an adjacent structure that provide a firm handhold, or the ladder user is protected by a personal fall protection system (e.g., positioning device or fall restraint system) tied off to a fall protection anchor.
- For leaning or extension ladders, tie, block, or otherwise secure while in use.
- Ladders must not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.

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#### Safe Work Practices for Mobile Platform Ladder Stands

Before you use the ladder

- Select a ladder stand that is the proper length and "duty rating" for the intended work.
- Remove any type of damaged or defective ladders from use and notify department management of the problem ladder.
- Use only on horizontal surfaces.
- Materials and equipment must not be stored on the steps or platform.
- Do not use for electrical work or near live electrical parts.



 Inspect for broken or defective parts and slippery surfaces prior to each use. This may count as a visual monthly inspection if it is documented.

While you are using the ladder

- Must not be moved when someone is on it.
- Must not be loaded beyond rated capacity.
- No other ladder or step stool can be used on the platform or steps.
- Do not step from the platform top to another surface unless the platform ladder is locked in place. That means not a weight activated lock.
- Do not place ladders where they can be accidentally struck or displaced.
- If a ladder or platform is used in an area where anyone could walk under it, the area must be cordoned off with a visual barrier (such as yellow caution tape) to alert pedestrians to the hazard of something falling from the ladder.
- Always face the ladder while ascending or descending except when the steps are less than 50 degrees from horizontal.
- If working outside of the ladder's footprint, use an appropriate fall protection system as described in the EH&S **Fall Protection Equipment and Inspection** Fact Sheet. If you are using a fall protection harness you must be trained on its use.
- Do not use as a support for planks.
- When working aloft, secure tools and supplies so they cannot fall from the ladder.

Required labels and markings according to the American Ladder Institute

#### Cal/OSHA doesn't have labeling requirements for ladder stands

Each unit must be marked with the manufacturers' product data information including:

- 1. Manufacturers or distributors name or logo
- 2. Month and year of manufacture
- 3. Maximum Rated Load

In addition, the following safety topics must also be addressed by the labels and markings:

- 1. Visual inspection
- 2. Maintenance
- 3. Overreaching

Example: CAUTION – Overreaching causes a tipping hazard

4. Engagement of the locking mechanism

Example: CAUTION – Make sure locking mechanism is engaged before climbing

- 5. Holding handrails during ascent and descent;
- 6. Appropriate standing surfaces
- 7. User orientation during ascent and descent

Example: CAUTION - Face ladder stand & hold handrails when ascending and descending



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#### Safe Work Practices for Step Ladders

Before you use the ladder

• Select a ladder that is the proper length and "duty rating" for the intended work.

NOTE: A step ladder must be tall enough so that you don't have to stand on the top cap or top rung of the ladder to access your work.

- Do not use electrically conductive (e.g. aluminum) ladders for electrical work or near live electrical parts.
- Inspect the ladder for broken or defective parts prior to each use. This may count as a visual monthly inspection.
- Remove damaged or defective ladders from use and notify department management of the problem ladder.
- Do not place ladders where they can be accidentally struck or displaced.



- If the ladder is used in an area where anyone could walk under it, the area must be cordoned off with a visual barrier (such as yellow caution tape) to alert pedestrians to the hazard of something falling from the ladder.
- Ladders must not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.
- Do not splice ladders together.
- Make sure that a step ladder is properly set up and that the spreader is locked in place before use
- Do not use the step ladder as a lean-to ladder.

While you are using the ladder

- Always face the ladder while ascending or descending.
- Do not stand on the top cap or top step of a step ladder.
- If working outside of the ladder's footprint, use an appropriate fall protection system as described in the EH&S **Fall Protection Equipment and Inspection** Fact Sheet. If you are using a fall protection harness you must be trained on its use.
- Do not place planks on the top cap or any other part of a ladder.
- Do not use the bracing or other structures on the rear section of a step ladder for climbing unless the ladder is designed to be climbed from both sides.
- When working aloft, secure tools and supplies so they cannot fall from the ladder.

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#### Safe Work Practices for a Platform Ladder

Before you use the ladder

- Select a ladder stand that is the proper length and "duty rating" for the intended work.
- Must not be loaded beyond rated capacity.
- Do not use as a leaning ladder.
- Completely extend and lock the spreader bars.
- Inspect for broken or defective parts.
- Remove any type of damaged or defective ladders from use and notify department management of the problem ladder.
- Ensure the steps are not slippery.
- Ensure the feet are not slippery or in disrepair.
- This may count as a documented visual monthly inspection.



During the use of the ladder

- Do not put your weight on the support rail above the top step.
- Do not place ladders where they can be accidentally struck or displaced.
- If a ladder or platform is used in an area where anyone could walk under it, the area must be cordoned off with a visual barrier (such as yellow caution tape) to alert pedestrians to the hazard of something falling from the ladder.
- Always face the ladder while ascending or descending except when the steps are less than 50 degrees from horizontal.
- If working outside of the ladder's footprint, use an appropriate fall protection system as described in the EH&S Fact Sheet <u>Fall</u> <u>Protection Equipment and Inspection</u>. If you are using a fall protection harness you must be trained on its use.
- Do not use as a support for planks.
- When working aloft, secure tools and supplies so they cannot fall from the ladder.

#### **Additional Resources**

- Cal/OSHA Portable Ladder Safety
- Cal/OSHA Protect Yourself when using portable ladders in construction Video
- WorkSafeBC Construction Safety Series Ladder Safety
- WorkSafeBC Ladder Safety Video
- WorkSafeBC Falls from Elevation Video Series You're A Pro: Falls from Ladders