Scaffold And Ladder Safety Program

Department of Environmental Health and Safety
Northern Illinois University

7/20/17
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PURPOSE
The purpose of Northern Illinois University’s (NIU) Scaffold and Ladder Safety Program is to establish guidelines for the safe construction and use of scaffolds and ladders by University employees. It requires training in scaffolding safety to ensure that employee erectors and users have a basic understanding of safe use and potential hazards of the scaffold equipment and ladders used by their departments. This is to provide a safe working environment for Northern Illinois University employees, contractors, visitors and bystanders and comply with OSHA standards.

Applicable Regulations and Standards
OSHA 29 CFR 1910.22 (General requirements)
OSHA 29 CFR 1910.28 (Safety requirements for scaffolding)
OSHA 29 CFR 1910.29 (Manually propelled mobile ladder stands and scaffolds (towers)
OSHA 29 CFR 1926.20 (General Safety & Health Provisions)
OSHA 29 CFR 1926.21 (Safety Training and Education)
OSHA 29 CFR 1926.451 (General Requirements)
OSHA 29 CFR 1926.452 (Scaffolds)
OSHA 29 CFR 1926.1053 (Ladders)

SCOPE
This program applies to all NIU personnel, labor contractors and guest-clients erecting or using scaffolds and ladders on any NIU campus.

RESPONSIBILITIES

ENVIRONMENTAL HEALTH & SAFETY (EH&S)
• Perform an annual review and update of the Scaffold and Ladder Safety Program.
• Arrange for user or erector training as requested by university departments.
• Observe the operation of scaffolds and/or ladders when encountered. Report unsafe practices to the appropriate supervisor, contractor or guest-client.
• Provide guidance for the proper selection and use of appropriate scaffolding equipment and personal protective equipment (PPE) to meet program requirements.

Department Supervisors
• Ensure all employees required to erect and/or use scaffolding receive the appropriate level of training.
• Ensure only trained and qualified individuals use or erect scaffolds.
• Verify employee compliance with the principles and practices outlined in the Scaffold and Ladder Safety Program.
• Maintain record of an individual’s scaffold training (User or Erector).
• Observe the use of scaffolds and ladders and correct unsafe behaviors and practices.
• Provide specific familiarization for each type of scaffold.
• Ensure the competent person completes the daily inspection of the scaffold before workers use it.
• Have NIU scaffold competent persons tag scaffolds and ladders that do not pass daily inspection “Out of Service” and report the need for repairs to EH&S.
• Keep records of repairs to scaffolds that are on the department’s inventory.
• Departments requesting maintenance and repair services of scaffolds and ladders assume the responsibility of paying for these services.

**Scaffold Users**

• Receive scaffold user training and work on scaffolds accordingly.
• Read and comply with the Scaffold and Ladder Safety Program.
• Inspect scaffolds before start of work.
• Notify supervisor of any deficiencies noted during inspection or use of scaffolds or ladders.
• Do not use a scaffold that has no inspection tag, has failed inspection or already has an “Out of Service” tag affixed to it.
• Use proper personal fall protection.
• Do not attempt to alter or repair any scaffold without proper training and authorization.
• Observe the use of scaffolds and ladders where encountered. Report unsafe practices, problems or malfunctions to the supervisor.

**Scaffold Erectors**

Scaffold erectors are responsible for installing scaffolding and performing inspections prior to initial use, daily before users use it and after any occurrence that may affect the structural integrity of the scaffold (for example, windstorm or subsidence).

**Contractors**

Contractors may not use NIU scaffolds or ladders. The contractor is expected to provide scaffolds and/or ladders for the use of his or her workers. Before work begins at NIU the Contractor shall provide NIU’s project manager or shop supervisor with proof of contractor workers’ certified scaffolding user or scaffolding erector/supervisor training.

**Guest- Clients**

If a guest-client brings their own scaffolding to use at NIU they must:

1. Identify their contact with NIU,
2. Send copies of workers’ certified scaffold erector or scaffold use training
3. Hang appropriate tag on their identifying readiness of scaffold for use (green--good to use, red—do not use).

Guest-client may arrange to rent NIU scaffold equipment and pay to have it erected and inspected by NIU’s certified trained scaffold erector/inspectors. They must provide NIU with proof of their workers’ certified scaffold user training.
Qualified Person
A qualified person is one who by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge and training, has the ability to solve or resolve problems related to the subject matter, the work or the project.

One must be a registered professional engineer to design scaffolding that is to be erected over 125 feet high and pole scaffolds erected over 60 feet high.

TRAINING
The trainer must be certified and have extensive knowledge and training on scaffolds in order to teach scaffold safety training.

Scaffold Erector Training Requirements
- Erector training is required of all employees involved in erecting, altering, disassembling, moving, repair or inspecting scaffolds.
- Scaffold Erector training shall be performed by a qualified person.
- The training shall include the following:
  - The correct procedures for erecting, altering, disassembling, moving, repairing and inspecting the type(s) of scaffold intended to be used.
  - The nature of scaffold hazards.
  - The design requirements and maximum intended load-carrying capacities of scaffolds used.
  - Proper use of personal fall protection equipment and fall protection systems.

Scaffold User Training Requirements
- User training is required of all employees who perform work while on a scaffold.
- Scaffold User training shall be performed by a qualified person.
- The training shall include the following:
  - The correct use of the scaffold and proper handling of materials on the scaffold.
  - The nature of scaffold hazards including overhead work, falling objects, personal fall protection and electrical hazards in the work area.
  - The correct procedure for dealing with electrical hazards.
  - The maximum intended load-carrying capacities of scaffolds used.
  - Proper use of personal fall protection equipment and fall protection systems.
  - Overhead work and falling object protection systems being used.
  - The requirements of this procedure.

Retraining Requirements for both Scaffold Erectors and Scaffold Users
Retraining is required when inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

Inspection of Scaffolds
Scaffold components shall be inspected for visible defects by the Scaffold Erector prior to assembly. Those components found with defects must be repaired or replaced immediately.
The **Scaffold Erector/Inspector** shall inspect the scaffold for visible defects:

- immediately after the scaffold has been completed
- prior to initial use
- before each work shift
- after any occurrence which could affect a scaffold’s structural integrity.
- If the scaffold is to be used for more than a week, an Erector/Inspector shall inspect it at least once weekly (not counting the initial inspection).

The **Scaffold User** shall:

- Inspect all scaffold components before erecting and during dismantling. Those components found with defects must be repaired or replaced immediately.
  - Handrails, mid-rails, cross bracing and steel tubing shall be inspected for nicks, especially near center span, and indications where a welding arc has struck.
  - Scaffold components shall be straight and free from bends, kinks, dents, and severe rusting.
  - Manufactured deck shall be inspected for loose bolt or rivet connections and bent, kinked, or dented frames. Plywood surfaces should be checked for softening due to rot or wear, and peeling or delaminated layers at the edges. Scaffold boards should be inspected for rot, cracks, notches, and other damage. Inspect cleats if they are used.
  - Each quick-connecting device, whether spring, threaded connection or toggle pin arrangement, should be inspected to see that it operates properly.
  - Casters, if used, should be inspected for smooth rolling surfaces, free turning, free acting swivel and to be sure that the locking mechanism is in good working order.

- Read scaffold tags prior to using any scaffold. The instructions or warnings outlined on the tag must be followed.

**PROCEDURES**

**General Requirements**

- All scaffolds shall be designed by a Qualified Person or manufacturer, and shall be erected, loaded and used in accordance with that design or manufacturer’s specifications.
- Scaffolds shall be erected, altered, moved, or dismantled by trained Scaffold Erectors. (See section on Training Requirements for Scaffold Erectors.)
- Employees required to perform work on scaffold platforms shall be trained in recognition and the control measures for the hazards associated with the type(s) of scaffold being used. (See section on Training Requirements for Scaffold Users.)
- Scaffolds shall be capable of supporting, without failure, its own weight and at least 4 times the maximum intended load.
- Scaffolds with work platforms 6 feet or more above the ground or next lower level should have a complete guardrail system. Toeboards are required when there is a risk of material, tools, or equipment being incidentally kicked, bumped or otherwise dislodged off the scaffold deck onto personnel below. (See section on Fall Prevention and Fall Protection.)
- All scaffold work platforms must be completely decked between the uprights and/or guardrail supports.
- Scaffold platforms shall be a minimum of 18 inches wide.
- All scaffold decking shall be Scaffold Grade or equivalent.
• The footing or anchorage for all scaffolds shall be sound, rigid, and capable of supporting the loaded scaffold without settling or displacement. Unstable objects such as buckets, barrels, boxes, loose bricks, or concrete blocks will not be used to support scaffolds. Mud sill’s 8” X 8” and base plates are required when scaffolds are supported on the ground surface. When using leveling jacks, 3/4 of its length must remain inside the scaffold leg.

• The poles, legs, or uprights of scaffolds shall be plumb and securely braced to prevent swaying and displacement.

• Manufactured scaffold components shall not be modified. Scaffold components manufactured by different manufacturers or of dissimilar metals shall not be intermixed unless the components fit together without force, modification and the scaffolds structural integrity is maintained as determined by a Competent Person.

• Supported scaffolds with a height to base width ratio of more than four to one (4:1) shall be restrained from tipping by guying, tying, bracing, or equivalent means.

• Guys, ties, and braces shall be installed according to the scaffold manufacturer’s recommendations or at the closest horizontal member to the 4:1 height and be repeated vertically at locations of horizontal members every 20 feet or less for scaffolds 3 feet wide or less; and every 26 feet or less thereafter for scaffolds greater than 3 feet wide.

• The top guy, tie or brace of completed scaffolds shall be placed no further than 4:1 height from the top. Such guys, ties and braces shall be installed at each end of the scaffold and at horizontal intervals not to exceed 30 feet.

• Design drawings must be made prior to erection and kept on site for any scaffolds over 125 feet high.

Scaffolding Decking
• Use manufactured decking materials approved for use on manufactured scaffolding by the manufacturer or Scaffold Grade 2” X 10” or 2” x 12” board material when using boards.

• No paint or material which would affect proper visual board inspection or work surface safety may be applied to scaffold boards. Scaffold boards may be painted 10 to 12 inches on each end to denote use for scaffold decking only.

• Scaffold boards are not to extend over their end supports more than 12” or less than 6”.

• All decking on platforms shall be overlapped (minimum 12”) or secured from movement.

• Do not use cleated boards with cleats turned up. Use with cleats down.

Scaffolding Tags
• The most effective means of communication between the scaffold builder and the scaffold user is a scaffold tag.

• The crew that erects the scaffold shall complete and attach the appropriate scaffold tag. (See Attachment 1)

• The tag should be placed at eye level on or near the access ladder so it is easy to locate and plainly visible.

• A Scaffold Erector shall ensure that the scaffold is erected properly and the tag attached is properly and completely filled out.

• If the scaffold needs to be altered in any way, a Scaffold Erector must be contacted to authorize the change and a new inspection conducted.

• An untagged scaffold must not be used. Contact a trained Erector, have the scaffold inspected and tagged.

• If a scaffold is to be used for an extended period of time it should be inspected before each shift by the Scaffold User. See Section 7.1: Inspection. The scaffold should be inspected a minimum of once weekly by a Scaffold Erector.
Tagging Systems
A three tag system can be used which includes a red or “Danger” tag in conjunction with the yellow and green tags. (See Fig. 1.) Again, any scaffold that is not tagged shall not be used.

- A red tag means the scaffold is being dismantled, not yet completely erected, or is for some reason not safe and shall not be used.
- A yellow tag is completed and attached to scaffolds which cannot be erected with all components complete. A yellow tag also informs the user that a fall protection device is required while on a scaffold with incomplete guardrails or deck openings.
- A green tag is completed and attached by the erecting crew to scaffolds which have complete handrails, midrails, toeboards, and decking as needed. A green tag informs all users that the scaffold is safe to use.

Fig. 1

RED

YELLOW

GREEN

Access to Scaffold Platforms
- When scaffold platforms are more than 2 feet above or below a point of access, an attached ladder or other approved ladder/stair system must be used by scaffold users to reach the platform.
- Hook-on and attachable ladders shall be positioned so that their bottom rung is not more than 24 inches above the scaffold supporting level.
• Access ladders must extend 36” above the platform being accessed, or equivalent safe access shall be provided.
• Scaffold bracing shall not be used for access or climbing. Integral prefabricated scaffold access frames must be specifically designed and constructed for use as ladder rungs and may be used for access to platforms.
• Hook-on and attachable ladders shall be interrupted by rest platforms at a maximum of 35-foot vertical intervals.
• Hook-on and attachable ladders shall be specifically designed for use with the type of scaffold being used.
• Rungs must be uniformly sized and spaced with a maximum interval between rungs of 16 3/4 inches.
• Rungs must be at least 11 1/2 inches long.

Scaffold Use
• Scaffolds shall not be loaded in excess of their maximum intended loads or rated capacities.
• Debris shall not be allowed to accumulate on platforms.
• Do not stack brick, tile, block, or similar material higher than 24” on the scaffold deck.
• Makeshift devices, such as boxes and barrels shall not be used on top of scaffold platforms to increase the working level height.
• Ladders shall not be used to increase the working level height.
• Where swinging loads are being hoisted onto or near scaffolds such that the loads might contact the scaffold, tag lines or equivalent measures to control the loads shall be used.
• Scaffolds shall never be altered or moved while they are in use or occupied.
• Scaffolds shall not be moved or dismantled without first removing all loose tools, materials, and equipment resting on the scaffold deck.
• Employees shall not work on scaffolds during storms or high winds.
• Employees shall not work on scaffolds which are covered with ice or snow, unless involved in removing ice or snow from scaffold.
• The clearance between scaffolds and power lines shall be as follows: Scaffold shall not be erected, used, dismantled, altered, or moved such that the scaffold or any conductive material touching it gets closer to exposed and energized lines than as indicated below:

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<tr>
<th>Insulated Lines</th>
<th>Voltage</th>
<th>Distance Minimum</th>
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<tr>
<td>Less than 300 Volts</td>
<td>3 Feet</td>
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<tr>
<td>330 Volts to 50 KV</td>
<td>10 Feet</td>
<td></td>
</tr>
<tr>
<td>More than 50 KV</td>
<td>10 Feet Plus 4 Inches for each 1 KV over 50 KV or 2 times the length of the line insulator but never less than 10 feet</td>
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</tr>
<tr>
<td>More than 50 KV</td>
<td>10 Feet plus 4 inches for each 1 KV over 50 KV or 2 times the length of the line insulator, but never less than 10 feet</td>
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FALL PREVENTION AND FALL PROTECTION

Each Employee on a scaffold more than 6 feet above the ground or next lower level shall be protected from falling to that lower level by means of a complete guardrail system (fall prevention) or approved personal fall protection. This requirement applies to both Scaffold Users and Scaffold Erectors. (See the Fall Protection Procedure.)

Fall Prevention

- All scaffold guardrail systems must meet the design/performance requirements set forth by OSHA standards and this Section.
- Guardrail systems shall be installed along all open sides and ends of platforms.
- Guardrail systems shall be completely installed before the scaffold is released for use other than erection and dismantling crews.
- Guardrail systems shall be surfaced to prevent injuries such as punctures or lacerations to employees.
- Top edge height of top rails or equivalent member shall be between 39 and 45 inches.
- Each top rail or equivalent member shall be capable of withstanding, without failure, a force applied in any downward or outward direction of at least 200 pounds.
- Rope, No. 9 wire, banding material, etc., shall not be used as a top rail or midrail.
- Midrails shall be installed at a height approximately midway between the top edge of the guardrail system and the platform surface. When intermediate members are used as a midrail, they shall not be more than 19 inches apart.
- Each midrail or equivalent member shall be capable of withstanding, without failure, a force applied in any downward or outward direction of at least 150 pounds.
- Where guardrail systems are incomplete, missing, or moved to allow access for work, personal fall protection shall be used on the affected platform(s).
- In some cases a building, structure, equipment, or piping may prevent the proper installation of a complete scaffold guardrail. A Competent Person can determine whether these obstructions meet or exceed the applicable guardrail requirements to be used instead of the scaffold guardrail system. The Competent Person should use the Scaffold Tag to indicate when these conditions are acceptable.

Personal Fall Protection

Approved personal fall protection is required any time employees erect or work on a scaffold:

- which is not protected by a complete deck and guardrails, and 6 feet or more above the ground or next lower level.
- anytime on a suspended scaffold platform.
- working as stated above, means while traveling, stationary, or at anytime exposed to a fall hazard.

Personal fall protection used on scaffolds shall be attached by a lanyard to a vertical lifeline, horizontal lifeline or approved scaffold structural member.

Personal fall protection is not required while using a designed ladder or access system, provided “three points of contact” are maintained when ascending or descending a scaffold ladder (access way), and the requirements of this procedure and applicable OSHA standards for ladders and stairways are met.

Employees may not climb any ladder with anything in their hands. Tools and materials may be carried on their person, hoisted up/down by rope or other devices.
Falling Object Protection

- If a falling object hazard is present, each employee working in the area shall be provided with a hard hat. Additional protection shall be provided through the installation of toeboards, barricades, mesh/screens, debris nets, or catch platforms/canopies. These help provide protection from hazards such as falling hand tools, materials, debris, and other small objects.
- Where there is a hazard of tools, materials, or small objects falling from the surface of scaffold platforms and striking pedestrians below, the area below the scaffold shall:
  - be barricaded at an appropriate distance with tape identifying the area a “Hazard Area” and signage indicating the detour/safe areas to walk. A second employee stationed on the ground directing individuals away from the hazard can serve as an acceptable alternative for jobs of short duration.
  - have a 2” X 4” (nominal) toeboard erected along all edges of scaffold platforms more than 6 feet above lower levels.
- Where tools and materials are stacked above the height of the toeboard, the following additional protective measures should be considered:
  - higher toeboards, or
  - mesh/screen put up against the guardrail with openings small enough to contain materials on the platform.
- In some cases, due to the nature or configuration of the scaffold/work area and rather than the protective mechanisms listed above, debris nets, catch platforms or canopy structures may be erected to protect pedestrians below from falling objects. If used, these structures must be strong enough to withstand the impact forces of the potential falling objects.
- When potential falling objects are too large or heavy to be contained by any of the above listed measures, those materials shall be placed away from edges and further secured from falling.

Mobile (Rolling) Scaffolds

- Mobile scaffolds shall be used only on level, smooth surfaces free of major defects.
- Mobile scaffolds shall be braced by cross, horizontal or diagonal braces or a combination thereof to prevent racking or collapse of the scaffold and to ensure scaffolds remain plumb, level and squared at all times. All brace connections shall be secured.
- Out-rigger frames, when used, are installed on both sides of the scaffold, and would be included in the base/height limit calculations.
- No one is to ride on any part of a scaffold that is being moved.
- All casters used with mobile scaffolding shall be provided with a positive locking device to hold the scaffold in position when the scaffold is stationary or while employees are on the scaffold.
- Caster stems and wheel stems shall be pinned or otherwise secured in scaffold legs or adjustment screws.
- Manual force used to propel the scaffold shall be applied as close to the base as possible, and never more than 5 feet above the supporting surface.
- Power systems used to propel mobile scaffolds shall be designed for such use. Forklifts, trucks or other similar motorized vehicles shall not be used to move scaffolds, unless the scaffold is specifically designed to be moved.
LADDER SAFETY

Responsibility

- It is the responsibility of all NIU Supervisors, Department Managers, Faculty and Staff who have employees or students under their supervision who may have occasion to use any type of ladder during the performance of the work to assure them to read and understand this document.
- It is the responsibility of Environmental Health and Safety to provide basic ladder training safety information to all departments in need of that training.
- It is the responsibility of all Supervisors, Department Managers, Faculty and Staff to assure that all ladders being used at NIU are free from defects and all the moving parts are working properly.

Ladder Categories

- Type IA-300 pounds extra heavy duty--industrial
- Type I-250 pounds, heavy duty
- Type II-225 pounds, medium duty
- Type III-200 pounds, light duty—household

Inspection and Maintenance of Ladders

- All employees and students who use ladders must inspect them for visible defects such as breaks, cracks, looseness and other possible hazards before ladder work begins. Ladders with loose parts or faulty rungs should be taken out of service immediately.
- Step ladder should sit square on a level surface.
- Make sure rungs and steps are kept clear of grease, oil, wet paint, snow, and ice.
- Maintain moving parts. Lubricate shoe joints, extension locks.
- Replace worn or broken non-skid rubber ladder safety shoes.
- Remove damaged ladder from work area and tag “Do Not Use”. Deliver it to department supervisor.

SAFE LADDER PRACTICES

Setup

- Set up ladder on solid and level base. If necessary, make the base solid and level. (See Fig. 2 -- extension ladder leveler.)
- Do not set ladders on boxes, blocks or other objects that might move.
- Secure ladders whenever a danger of slippage might occur.
- Do not use ladders outdoors in high wind or during inclement weather conditions.
- Never set up ladders in front of or around doors, unless the door is posted or locked.
- Place warning signs or setup barriers around a ladder before use. Use warning cones in high traffic areas.
- Never use metal ladders near exposed electrical wires.
General Safe Use

- On step ladders, make certain the spreader is locked.
- Face ladder and use three points of contact when climbing up or down.
- Wear safety shoes or other rubber sole shoes when climbing a ladder.
- Climb or stand on a ladder with your feet in the center of the rung.
- Avoid leaning or reaching out while standing on ladders.
- Never use the top two steps of any ladder to stand or sit on.
- Avoid carrying materials or tools when climbing a ladder. Use a tool belt or climb the ladder first then hoist the materials up. (Use a bucket and a rope.)
- Do not climb onto a ladder from the side.
- Do not stand on the top rung or step of a ladder.

Proper Use and Care of Ladders

- Do not move a ladder while someone is on it.
- Never use a ladder when under the influence of alcohol or prescription medications that can make one dizzy.
- Do not leave tools or materials on top of ladders
- Only one person should be on a ladder at a time.
- Do not use a ladder on a scaffold.
- Do not try to rock a ladder to move it.
- Store wood ladders where they will not be exposed to the elements.
- Do not paint wood ladders. Painting could hide potentially dangerous defects.
- Make sure ladders are properly secured when transported.

Step Ladder Safety

- Never use a stepladder over 20 feet in length.
- Always open a stepladder completely and make sure the spreader is locked before use.
- Do not stand higher than the second step from the top of a step ladder or sit or stand on the top step.
- Do not straddle a stepladder.

Extension Ladder Safety

- The sections of an extension ladder should overlap enough to retain the strength of the ladder. (See Table 1.)
- Never splice or tie two short ladders together.
- When using a ladder for access to a landing, it must extend 3 rungs or 3 feet above the landing. If necessary use roof access rail extenders. (See Fig. 3)
- The top of an extension ladder should rest against a flat, firm surface. If necessary use an extension ladder stabilizer. (See Fig. 4)
- Elevate and extend these extension ladders only from the ground.
- Where practical, secure extension ladders at both the base and the top.
### TABLE 1

**Extension Ladder Setup**

<table>
<thead>
<tr>
<th>Length of Ladder</th>
<th>Required Overlap</th>
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<tbody>
<tr>
<td>Up to 36’</td>
<td>3 Feet</td>
</tr>
<tr>
<td>Over 36’ to 48’</td>
<td>4 Feet</td>
</tr>
<tr>
<td>Over 48’ to 60’</td>
<td>5 Feet</td>
</tr>
</tbody>
</table>

- Lay the ladder on the ground when it is collapsed. Have someone ‘foot’ the ladder or rest base of the ladder against a wall.
- Pick up the ladder and walk it to an upright position, making sure it will not be obstructed by trees or wires.
- Slide the bottom of the ladder outwards to the proper angle and set the feet correctly.
- Extend the ladder by pulling the ladder extension line.
- Make sure the rungs on the upper half of the ladder are properly secured by the locking mechanism.
- Set foot of extension ladder ¼ of the distance from the base to the top support (contact point) for most stable arrangement. (See Fig. 5)
- If possible, tie the ladder off or have someone steady the ladder as worker climbs it.
Figure 2
Extension ladder leveler

Figure 3
Roof access rail extenders

Figure 4
Extension ladder stabilizer

Figure 5
Proper angle
Fixed Ladder Safety

A fixed ladder is defined as a ladder that cannot be easily moved or carried, and is secured to the object to which it is attached.

Examples on the NIU DeKalb Campus are the Soccer and Football Field Light Poles and the Chessick Practice Center “chimneys”. Don fall protection body harness and properly latch on to fall protection cable prior to climbing these ladders.

- Fixed ladders over 20 feet must have a safety cage surrounding the ladder.
- The safety cage should have 15" clearance to all points from the center.
- Defects in fixed ladders should be repaired as soon as possible.
- When a defect is not repairable the ladder must be taken out of service. Alert department supervisor and building engineer.
- Do not slide down ladder.

Thank you to Illinois State University’s Office of Environmental Health and Safety, on whose Scaffolding Procedure much of this Scaffold and Ladder Safety Program is based.
APPENDIX A
Scaffold Safety Checklist
### Scaffold Inspection

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the scaffold made of scaffold-grade lumber and/or strong metal?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are the footings sound and rigid?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is there a safe way to get on and off the scaffold?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the scaffold able to hold four times its maximum intended load?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are the wires or ropes on a suspended scaffold able to support six times their maximum intended load?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Has the appropriate inspection tag been affixed?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

### Scaffold Use

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are scaffold loads (people, tools, materials &amp; debris) kept to a minimum?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are safety nets used for jobs requiring many tools and materials?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are materials removed from scaffold at the end of each day?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are slippery scaffold platforms sanded?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the area around and under the scaffold kept clear?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are scaffolds not used in bad weather?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are workers on the ground alert to those on the scaffold above?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Do workers on the ground around scaffolds wear hard hats?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>If there is a chance of items falling on them, do the scaffold users wear hard hats?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>On swinging scaffolds, are workers properly tied off?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
APPENDIX B
LADDER SAFETY CHECKLIST
<table>
<thead>
<tr>
<th>Ladder Maintenance and Inspection</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are all rungs and steps intact and in good condition?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are all nuts, bolts, rivets, etc., tight and in place?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are moving parts lubricated?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are ropes in good condition?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the ladder free of splinters or sharp edges?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are metal steps covered with nonslip material?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are steps clean and free of grease and oil?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have wooden ladders been coated with a clear preservative?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are ladders stored in a dry, well-ventilated are with moderate temperatures?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Are horizontally stored ladders supported on the ends and the middle?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have broken ladders or those exposed to fire or corrosion been removed from service?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
Ladder Safety Procedures

Set ladder on a firm, level surface.

Keep ladder feet parallel to the surface that the ladder leans against.

Secure or have someone hold the ladder at the bottom.

Open and latch step ladder.

Do not lean unopened step ladder against a surface.

Position an extension ladder before extending it.

Angle the extension ladder so its working length equals the distance between the ladder feet and the vertical surface it leans on.

Extend extension ladder at least three feet over the top support.

Avoid placing ladders on window or sashes or in front of doors that aren’t blocked, locked or guarded.

Have only one person on a ladder at a time.

Face the ladder when climbing up or down.

Use both hands when climbing or descending.

Avoid leaning to the side. Keep your navel between the side rails.

Stand no higher than four rungs from top on an extension ladder, two on a step ladder.

Do not sit or stand on top step!

Raise and lower tools, materials, etc. in buckets on ropes whenever needed. Carry tools up and down in belt, pocket or bucket, never in hands.

Stay off ladders if prone to fainting or dizziness.

Wear shoes with clean, nonskid soles, or scrape off soles before climbing.