



Appendix D

Work Site Safety Manual

Introduction:

Safety is everybody's concern and is always an important consideration at any construction site. Building construction can be one of the most dangerous occupations. Since Habitat work crews normally have a high proportion of inexperienced people, everyone must pay particular attention to safety. Try to be conscious of the safety of others as well as yourself. An observer can often see danger better than the worker involved in the project. Be cautious at all times and ask questions. Do not go ahead with a task if you are uncertain how it is done, or if you are unable to do it. Safety is based on knowledge, skill and an attitude of care and concern. Supervisors should instruct each worker about the correct and proper procedures for performing each task. This should familiarize the worker with the potential hazards of doing the tasks and advise him or her as to how such hazards can be minimize

General Safety:

- Don't lift beyond your strength. Get a partner. Remember to bend your knees. Lift with your back straight.
- Keep an eye on your load as you move and turn so as not to whack someone with a board.
- Do not run when carrying tools or materials.
- It's good practice to obtain updated vaccinations such as tetanus shots.
- Know where the water, first aid kit, and fire extinguisher are located.
- Tell the house leader immediately in the event of an injury.
- Refer to the instruction sheet included in the body fluids clean up kit located in the site trailer prior to sanitizing the work site after any injury that requires clean up.
- Think and concentrate on your task.
- If you are uncertain about how to do a task or how to operate a power tool - ASK A SUPERVISOR
- Advise your supervisor IMMEDIATELY of any unsafe or hazardous tool or condition.

Security & Housekeeping:

- Many accidents can be avoided by proper on-site housekeeping. Following are some recommendations:
- Have access to a telephone – Every MHFH house has a land line from insulation until closing. Locate and test it at the beginning of every work shift.
- Milwaukee Habitat for Humanity will have potable water at the site unless noted otherwise.

- Locate the safety bucket in each house. The safety bucket contains:
 - -1 first aid kit
 - -1 Fire extinguisher
 - -Safety paper packet including: sign-up sheets, waivers, staff contact sheets, directions to the nearest hospitals, incident report sheets, safety huddles, etc.
- Do not store flammable or combustible materials inside the building.
- Arrange deliveries to minimize value of materials on job site.
- Keep the area around the building clear of debris.
- Keep the interior of the building, including stairs, halls, and open floor areas, free of debris.
- Remove nails from scrap lumber as soon as practical.
- Keep all electrical cords free of entanglement with loose materials and in good repair.
- Wipe up spilled liquids on areas that may cause workers to slip.
- Build protective barriers around openings on the site or in the building that may cause falls.
- When dropping materials to the ground, barricade the drop area.
- Excess tools, small pieces of material, sawdust, mud and power cords each represent a potential for injury on the job site.
- Stack unused lumber and building materials neatly so as to reduce the chance of tripping and to assist in accounting for materials.
- Discard banding material as soon as it is removed from bundled lumber.

Work Site Clothing & Worker Safety Equipment:

The affiliate will make basic safety equipment available to every volunteer such as hard hats, safety glasses, dust masks, ear plugs, etc., as needed. Proper clothing is as essential to safety as the proper selection and use of tools / safety equipment.

- Wear clothes and gloves that are appropriate for the work and weather conditions. Loose clothing is dangerous around power tools.
- Workers shall wear work boots and thick-soled shoes at all times when on a construction site. Any worker wearing sandals or other types of inappropriate footwear shall not be permitted to remain at a construction site.
- Hard hats are to be worn during the framing phase of construction, or when required by a supervisor.
- Earplugs must be worn when using a power tool for a prolonged period of time or when instructed by a supervisor.
- A worker must wear protective glasses any time he or she is operating a power tool or when instructed by a supervisor.
- Each worker must wear a dust mask when installing insulation, sanding or when instructed by a supervisor.

- Hammering or the use of power tools has the potential to produce projectiles which could cause eye injuries.
- When persons are exposed to harmful respiratory substances, respiratory protective devices must be used.
- Clothing should be loose enough to permit easy bending but not loose enough to get caught in moving tools.

Hand and Power Tools:

- Wear safety glasses when operating power tools and nailing.
- Wear hearing protection when operating saws.
- Never hold the work in your hands. Place the work on a firm surface.
- Guards on saws must be in place & operating. Tools must be in safe condition. Keep blades sharp. Make sure wooden handles do not have splinters and cracks.
- Don't bind the blade of any saw. If a saw binds, it will kick back toward the operator. Do not overreach.
- Select the correct tool for your work. Carry only those tools you need.
- Regularly inspect tools for broken or missing pieces. Inspect cords for frayed wires or damaged insulation.
- Use grounded plugs on tools appropriately.
- Plug electrical equipment into a ground fault circuit interrupter.
- Use tools for their intended purpose.
- If unfamiliar with a tool's use, ask for assistance and take time to practice using the tool.
- Do not operate tools without approval or supervision. Do not operate a tool if you have not been trained to use it.
- Do not over exert yourself or the tool; this can lead to slips and strains.
- Place yourself in a good body position - most hand tool accidents result from being struck by the tool or flying chips.
- Disconnect power source before moving the tool, making adjustments, or changing bits or blades.
- Do not use the cord to lift or lower the tool.
- Do not fasten extension cords with staples, nails or suspend by wire.

Ladders:

- Use ladders for the purposes for which they were designed. Do not use ladders for skids, braces or work benches.
- Make sure ladder size meets job demands.
- Do not use step ladders as straight ladders, always open all four feet and lock spreaders in place on a step ladder and place in a level condition.
- Do not place tools or materials on steps.
- Use proper angles when using straight and extension ladders. When using a non-self-supporting ladder use the "four-to-one" rule: for every four feet of height, move the bottom of the ladder one foot from the wall. One way to ensure proper angle is to stand with your feet at the base of the ladder and extend your arms straight out. If your hands just touch, the ladder will be very close to the 4 to 1 ratio.

- Secure straight and extension ladders by tying off the top or securing the base.
- Top extension ladders must extend at least three feet beyond the supporting object when used as an access to an elevated work area.
- Before climbing extension ladders make sure latches are properly engaged.
- Extension ladders must be overlapped a minimum of three rungs.
- Keep body near the middle of the ladder. Avoid leaning off the edge of a ladder. Move the ladder frequently so as not to be tempted to lean too far.
- Do not step on the top rung or platform on a step ladder.
- Do not carry anything that will prevent holding on with both hands while ascending or descending the ladder. Use a tool belt or a tool bag to lift tools.
- Only one person on a ladder at a time.
- If it becomes necessary to place a ladder in or over a doorway, barricade the door.
- Do not use metal ladders near an electrical exposure.
- Always inspect the ladder before you use it. Never use the ladder if it is damaged, broken, or bent. Make sure that all parts are in good working order, and all rivets, joints, nuts and bolts are tight.
- Face the ladder while climbing and stay in the center of the rails. Grip both rails securely while climbing.
- Do not lean over the side of the ladder. Your belt buckle should not be further than the side rail.
- On single or extension ladders, never stand above the third rung from the top and never climb above the point where the ladder touches the wall or vertical support.
- On stepladders, never stand on the paint shelf, spreaders or back section.

Framing & Trusses:

- Observe all rules and precautions specified under general, power tools and ladders.
- Remove nails from discarded lumber as soon as practical.
- Use a respirator when sanding pressure treated wood.
- Always wear a hard hat when work is being done overhead during the framing stage. Watch for materials falling from above.
- Use caution when walking on floor joists. Watch your footing.
- Cover stair openings as soon as sub-floor is installed with suitable materials.
- Install a slide guard about 6” from the bottom of the first course of roof sheathing as soon as it is installed to prevent tools or personnel from sliding off the roof.
- Install GFCI circuits in the temporary power system.
- Stairways with 4 or more risers or which rise more than 24” must include handrails at 30” –38” high from the plane of the treads.
- Take precautions when climbing onto or off of the roof. This is when many roof related falls occur.
- Do not step backwards on a roof. Every year, experienced roofers fall off the roof by stepping backwards off of the edge.
- When roofing, wear shoes with soft soles with some tread left.
- Loose materials and sawdust should be removed frequently from the roof surfaces.

- When standing up walls, make sure there are enough people to hold up the wall, and have bracing ready so it can be fastened as soon as possible. Workers should not be positioned on the outside of the wall.
- Make sure the wall is fully supported until the bracing is up.
- Do not allow personnel to work beneath areas being roofed.
- Never work on a roof alone.

Siding:

- Observe all rules and precautions specified under general, power tools and ladders.
- Move materials close to the work area to minimize carrying distances.
- Remove nails from scrap - discard properly.
- Use proper hand tools.

Insulation and Drywall:

- Observe all rules and precautions specified under general, tools and ladders.
- Utility knives are very sharp - keep your hands out of the path of the blades. Always retract the blade or install guard when not in immediate use.
- Fiberglass particles can be particularly harmful. When handling insulation, wear sturdy, loose, long sleeved clothing, gloves and goggles (even glasses are inadequate protection), face mask, a respirator or dust mask and a hat.
- If particles get on your skin, do not scratch. Shower with cold water as soon as possible.
- Drywall is very heavy. Stack drywall materials so that they are stable and secure. Do not ever pull a stack away from the wall as many bones have been broken by shifting stacks.
- Safety glasses and masks help prevent drywall dust from getting in your eyes and lungs, especially when working on the ceiling.

Painting, Flooring & Interior Trim:

- Observe all rules and precautions specified under general, tools and ladders.
- Maintain good housekeeping in the work area.
- Wear respiratory protection when sanding and painting as appropriate.
- Be aware of others working in the vicinity. You don't want to miss your mark and strike someone working in the adjacent area.
- Place ladders on solid footing and don't leave any tools or paint on top of ladders.
- Don't cross hands to stabilize material when using a miter saw. Have someone else hold it for you.