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Safty Plan

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Chapter 1: Introduction

Overview

Construction activities result in more fatalities and serious accidents than any other occupation, except farming. A construction site is inherently dangerous due to the nature of the process: working on unfinished surfaces, construction methods that require vigorous activity and mobility, and the variability of the skills and experience of the El Amar for Contracting employees and volunteers. Nonetheless,

All accidents are preventable.

The operative issue in preventing accidents is not years of experience, but rather awareness of the potential for injury and conscious consideration of steps to prevent injuries. The Habitat for Humanity construction process includes volunteers with a wide range of experience. While some have recent experience in construction environments, many volunteers are inexperienced and may not be aware of the inherent hazards or know the steps that should be taken to prevent injury.

The El Amar for Contracting safety program is designed to ensure that staff members and volunteers are provided with job site safety rules and trained to recognize and eliminate or avoid hazards associated with construction activities, and to monitor construction activities to help recognize and remove hazards before they become accidents.

All employees and volunteers have the responsibility to follow the guidelines and information in this manual and to work safely while on an El Amar for Contracting job site. By providing the safety and awareness training and monitoring work sites, El Amar for Contracting can continue to provide housing for families in need and make volunteer opportunities memories that will last a lifetime.

Safety Program Overview

On_____, the El Amar for Contracting Board of Trustees adopted a resolution directing that the affiliate adopt a formal Safety Program. On _____, the El Amar for Contracting Board of Trustees formally accepted the

Safety Program defined in the Construction Safety Manual dated _____. Any changes to the Construction Safety Manual must be recommended by the El Amar for Contracting Safety Committee to the El Amar for Contracting Construction Director who shall notify the El Amar for Contracting Board of Trustees within 30 days of their implementation. A copy of the most recent revision of the Construction Safety Manual shall be maintained at each El Amar for Contracting work site.
House Leaders are responsible for implementing and enforcing safety requirements on the work sites. House Leaders, Crew Leaders, and Site Safety Observers have the responsibility to provide coaching to volunteers about safe work practices. Workers who are unwilling to respond to this coaching will be asked to leave the worksite. Any
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Controversies that result from this request will be addressed by the El Amar for Contracting Construction Manager, El Amar for Contracting Volunteer Director, and/or the El Amar for Contracting Construction Director.
The Safety Committee shall make reports to the Board of Trustees at each meeting. The following is a list of reports that shall be prepared:

Type of Report
Listing and analysis of all incidents
Analysis of work site safety audit findings
Report from review at a House Leads Meeting
Program modification recommendations

Chapter 2: El Amar for Contracting Safety Process

Overview

While unsafe conditions abound on construction sites, statistical reviews of injuries indicate that about 90% of the accidents result from unsafe acts rather than from unsafe conditions. These unsafe acts almost always result from either a lack of awareness on the part of the participant or the employment of a short-cut method or practice. Constant awareness of and respect for hazards, and compliance with all safety rules are required when working on an El Amar for Contracting worksite.

Most volunteers are novices who work only once or a small number of times on El Amar for Contracting work sites. Therefore, it is important to never be in a hurry and to take as much time as is needed to provide safety training and work technique guidance. Safety training must be provided in a very condensed manner at the beginning of each workday and augmented throughout the day with reinforcement by a small number of more experienced and/or trained volunteers.

The El Amar for Contracting Safety Process employs several interdependent components:

Safety Training Program to provide the best possible information and preparation to all workers as described in this Chapter
Safe Work Site Design And Practices used by House Leaders to provide the safest possible work environment as described in this Chapter
Daily Volunteer Safety Training to provide every worker with the minimum essential information to work safely as described in this Chapter
Safety Monitoring and Enforcement to continuously reinforce and enforce safe practices as described in this Chapter
Work Site Safety Audits to measure the effectiveness and consistency of the El Amar for Contracting Safety Process across all work sites as described in this Chapter
Site Safety Observers assist House Leaders as described in Chapter 4
Safety Checklists that provide general guidance and additional details for selected construction functions are detailed in Chapter 5

Safety Training Program

El Amar for Contracting staff and all volunteers shall participate in the training programs indicated in the table below. The Formal Safety Training is defined in Appendix A. The remaining training programs are defined in the remainder of this Chapter.

The El Amar for Contracting Construction Director, El Amar for Contracting Construction Manager and the El Amar for Contracting Volunteer Director are responsible for making sure that House Leaders and Site Safety Observers are properly trained prior to engagement of their work activities.

Worker Category	Formal Safety Training class	On-Site Review of Applicable Sections of the Construction Safety Manual	Daily safety Huddle and On-The-Job Training	Morning Planning Meeting
El Amar for Contracting Staff	Required			
House Leaders	Required		Required	Required
Required Site Safety Observers	Required		Required	Required
Crew Leaders		Required	Required	Required
Frequent Volunteers (a)			Required	
Temporary SSO for the day		Required	Required	Required if present
All Other Volunteers			Required	

NOTES:

a) Frequent Volunteers – For Safety Program purposes, any volunteers who expect to work more than four times per year are considered Frequent Attendance Volunteers and will be encouraged to complete the Formal Safety Training Class and help El Amar for Contracting implement the safety program by becoming SSO's, Crew Leaders, House Leaders, and by filling other key volunteer roles.

b) El Amar for Contracting staff and all volunteers acknowledge and abide by the following jobsite enforcement rules:

- 1st Violation – verbal warning
- 2nd Violation – written notice
- 3rd Violation – suspension from jobsite

NOTE: gross disregard for safety procedures can result in immediate removal from jobsite

Safe Work Site Design & Practices

House Leaders carry the primary responsibility for operating a safe work site. Some necessary items for which **House Leaders are responsible** include the following:

- **Site Design**: For making a thorough hazard assessment and making sure that the site is designed for safety in accord with the Safe Site Design checklists in Chapter 5.

- **Site Safety Observer**: For introducing and directing a Site Safety Observer at all times. If a formally trained SSO is available, that person should be introduced and coached to perform the SSO role fully. If not, a suitable volunteer should be recruited to be the Temporary SSO of the Day, asked to review the appropriate checklists, and coached to perform the SSO role as much as possible.

- **Safe Equipment**: For insuring that all equipment and tools and their associated safety devices and guarding are in good working order at all times.

- **Volunteer Training**: For reviewing safety factors with the SSO and Crew Leaders prior to the arrival of the other volunteers, and for conducting the Daily Safety Huddle with all volunteers prior to the beginning of construction activities.

- **Promotion and Monitoring**: For continuously promoting safety awareness and for monitoring and coaching all volunteers, insuring adherence to all safety checklists and safe practices throughout the site at all times

- **Effective Delegation**: For appropriately utilizing the services of the Crew Leaders and Site Safety Observers to accomplish the training and supervision of the volunteers and to inspect equipment

- **Accident Investigation**: For investigating and reporting all accidents that result in injury to workers or significant near misses that could easily have resulted in injury to workers, so that the cause and means of prevention can be identified to prevent a recurrence. The Accident Investigation form is located in Appendix B of the El Amar for Contracting Safety Manual.

Daily Volunteer Safety Training

House Leaders, Crew Leaders and Site Safety Observers must all be prepared to explain the hazards and the potential for injury involved with the various tasks and equipment, including the use of appropriate Personal Protective Equipment and the safest methods for accomplishing each task. All volunteers need to be reminded of the importance of Safety Coaching and the idea of pointing out unsafe acts or conditions to each other, and asking questions about the safety or procedures for a particular task.

Morning Planning Meeting

House Leader, Crew Leaders, and Site Safety Observer meet at the site 30 minutes prior to the scheduled arrival of the other volunteers.

Plan the day's work, adjusting for site conditions, weather, etc.

Discuss technical aspects, materials, tools and locations of the materials and tools.

Assess hazards, safety issues, and preventative measures and choose which Site Safety Checklists will be reviewed using the "Daily Safety Huddle Planner" form shown in Appendix C.
Identify the SSO(s) and/or Temporary SSO(s) for the Day.
Daily Safety Huddle

- House Leader provides devotional and/or general Habitat orientation.
- House Leader discusses day's work plans and makes crew assignments.
- House Leader introduces the SSO(s) and/or Temporary SSO(s) of the Day and describes their role.
- The SSO and/or the House Leader

Reviews the previously chosen Site Safety Checklists (Appendix C).
Identifies the location of the Safety Board.
Identifies volunteers with first aid and/or safety training or experience.
Identifies volunteers who have cell phones for possible emergency use.

Notes:

SSO(s) and/or Crew Leaders may lead portions of the Daily Safety Huddle to the extent that they are competent and confident in the topics

Site Safety Checklists must be used to provide comprehensive and consistent safety information.

Safety Promotion and Monitoring

The novice nature of volunteers requires continuous promotion of safety principles to reinforce the training provided in the Daily Safety Huddle. Crew Leaders discuss the work crew's assignment and reinforce safety issues as appropriate. All volunteers including House Leaders, Crew Leaders, and SSO's must be willing to point out unsafe acts observed on the construction site. This should be done in an atmosphere of caring and consideration, and accepted graciously. Any volunteer who persists in unsafe practices or acts despite effective safety coaching will be directed by the House Leader to leave the site.

Some necessary items for which **El Amar for Contracting Staff, House Leaders, Crew Leaders, and Site Safety Observers are responsible** include the following:

On-the-Job Training: For observing and monitoring volunteer activities during the work period and

Providing additional training and safety coaching as tasks change or as work practices or conditions become unsafe.

Explaining and demonstrating safe techniques and practices as volunteers use hand tools, power tools, ladders, scaffolds, pump jacks, etc.
Coaching each other, bringing any unsafe acts or conditions to the attention of those involved, the SSO or Temporary SSO of the Day, and the House Leader.

Ad Hoc Training: For being alert for additional volunteers who arrive at the site after the Daily Safety Huddle and briefing them on the safety issues that were discussed.

Work Site Safety Audits

Selected members of the El Amar for Contracting Safety Committee, or designees, will periodically visit each work site. They will conduct an audit using the checklist in Appendix D and provide analysis and report to the Board of Trustees as required by the Safety Policy.

While conducting an audit, Safety Committee members should answer safety-related questions as asked. However, they should not be involved in any enforcement activities other than to report unsafe conditions to the SSO and/or House Leader.

Chapter 3: Role of the Site Safety Observer

As defined in Appendix H, Site Safety Observers (SSO's) are volunteers with special training and awareness of safe building practices. There should be an SSO on site whenever any volunteers are working. Ideally, the SSO is a person who has completed the Formal Safety Training described in Appendix A and learned how to implement the El Amar for Contracting Safety Process defined in Chapter 3. However, when no formally trained SSO is available, the House Leader should name a suitable volunteer to be a Temporary SSO for the Day, and should direct that person to immediately review the applicable sections of the Construction Safety Manual, and to help operate a safe work site for all volunteers. Both the SSO and Temporary SSO shall be capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to workers, and have authorization to take prompt corrective measures to eliminate them.

Each organization should recruit 3 to 5 volunteers to become trained SSO's and insure that at least one of them is on site every work day

While the Site Safety Observers may perform construction tasks on the site with the other volunteers as time permits, their principal responsibility is maintaining an awareness of safety conditions on the work site and interacting with the volunteers about these safety issues.

The Daily Safety Huddle is very important so that the credibility and role of the SSO is established by the House Leader. Similarly, it is very important that the SSO wear the designated SSO hardhat, cap, and/or vest.

Site Safety Observer Responsibilities Checklist

- Engage the House Leader and Crew Leaders in a dialog about the potential safety hazards to be considered during the day's planned work.
- Remember that safety is a Team Effort, so don't hesitate to solicit help or information from the House Leader and Crew Leader when dealing with volunteers and safety concerns.
- Attend the morning planning meeting with the House Leader and Crew Leaders, and ensure that they understand your role in the El Amar for Contracting Safety Process.
- Attend the Daily Safety Huddle with the other volunteers, and participate in briefing them on specific safety tips and cautions for the day's activities to the extent you feel competent, confident, and comfortable.
- Use the Work Site Safety Checklists to audit the safety conditions and practices at the work site each day. Provide safety coaching as needed to House Leaders, Crew

Leaders and other volunteers on tool usage and safe work practices. Inspect power tools and hand tools for defects and hazards. Tactfully correct unsafe work practices, when observed. Report any persistent unsafe conditions or practices to the House Leader.

- Serve as an Observer/Spotter when overhead roofing and ladder work is being performed.
- Interact with any volunteers who missed the Morning Safety Meeting about the work tasks and safety issues discussed.
- Provide feedback to the El Amar for Contracting Safety Committee on the effectiveness of the El Amar for Contracting Safety Process.

Safety Coaching

Safety Coaching is provided to site workers when it is observed that there is either an unsafe condition or an unsafe act that needs to be brought to a worker's attention. It is best to provide safety coaching in a positive way to the person or persons at risk. Be sure to provide

coaching remarks in terms of the risk to which the worker may be exposed rather than specifically critiquing the `behaviors' which may cause the risks.

Chapter 4: Safe Site Design and Safety Checklists

Emergency Preparedness

Prominently display the **Safety Board** including emergency numbers, street address, city, and nearest cross streets.
Provide a readily available **first aid kit** and make sure it is stocked, and includes an eye wash bottle.
Provide readily accessible **fire extinguishers** and make sure they are charged.
Know who else on site has a **cell phone** for emergency communications.
Identify those on site with first aid, CPR or other applicable expertise and would be willing to assist in an emergency.
Provide plenty of **fresh potable water** in a convenient place on the site.

Medical Services and First Aid

1. Prior to starting work, provisions should be made for prompt medical attention in case of serious injury. The nearest hospital, infirmary, clinic, or physician shall be located as part of the engineering survey. The job supervisor should be provided with instructions for the most direct route to these facilities. Proper equipment for prompt transportation of an injured worker, as well as a communication system to contact any necessary ambulance service, must be available at the job site. The telephone numbers of the hospitals, physicians, or ambulances shall be conspicuously posted.

2. A properly stocked first aid kit as determined by an occupational physician, must be available at the job site. The first aid kit should contain approved supplies in a weatherproof container with individual sealed packages for each type of item. It should also include rubber gloves to prevent the transfer of infectious diseases. Provisions should also be made to provide for quick drenching or flushing of the eyes should any person be working around corrosive materials. Eye flushing must be done with water containing no additives. The contents of the kit shall be checked before being sent out on each job and at least weekly to ensure the expended items are replaced.

3. **POLICE AND FIRE CONTACT**. The telephone numbers of the local police, ambulance, and fire departments should be available at each job site.

Safe Site Design

Provide readily available **basic safety equipment** to every volunteer including gloves, safety glasses, hard hats, dust masks, ear plugs, etc.
Build protective **barriers** (such as guardrails and covers) for openings in building that may cause falls.

This guardrail appears to be properly constructed except for the missing toe board that is required to prevent object from falling to the floor below and possibly striking another worker.

Keep the worksite clear of **debris**, especially stairs, halls, open floor areas, and the area immediately surrounding the building. Plan for and manage storage locations for demolition debris and other waste materials.

Remove nails from scrap lumber as soon as practicable.

Discard banding material as soon as it is removed from bundled lumber.

Keep the area within 6' of the perimeter of the structure clear of movable objects that would increase the severity of an injury resulting from a fall.

Store usable lumber and building materials neatly to reduce the chance of tripping and to assist in accounting for materials.

Keep all electrical cords free of entanglement with loose materials and in good repair. Insure that all tools are properly grounded or double insulated.

Removing the ground pin from a plug to fit an ungrounded outlet not only means your work area is unsafe, but makes the cord unfit for future work where there is grounding.

- Ground Fault Circuit Interrupter (GFCI) circuits must be used for all electrical equipment. For example built into extension cords, using an additional pigtail, installed as a GFCI electrical socket, or installed in the main electrical box.

Fire Prevention and Protection

- A "fire plan" should be set up prior to beginning any project. This plan should outline the assignments of key personnel in the event of a fire and provide an evacuation plan for workers on the site. *Common sense* should be the general rule in all fire prevention planning, as follows:
    - All potential sources of ignition should be evaluated and the necessary corrective measures taken.
    - Electrical wiring and equipment for providing light, heat, or power should be installed by a competent person and inspected regularly.
    - Equipment powered by an internal combustion engine should be located so that the exhausts discharge well away from combustible materials and away from workers.
    - All internal combustion equipment should be shut down prior to refueling. Fuel for this equipment should be stored in a safe location.
    - Sufficient firefighting equipment should be located near any flammable or combustible liquid storage area.
    -
    - Only approved containers and portable tanks should be used for the storage and handling of flammable and combustible liquids.

An emergency action plan must be developed prior to construction at each new project site. Key elements of an emergency action plan must include (at a minimum):

1. An emergency action plan must be in writing, kept at the project site, and available to volunteers for review;
2. Procedures for reporting a fire or other emergency;
3. Procedures for emergency evacuation, including type of evacuation and exit route assignments;
4. Procedures to account for all employees after evacuation;
5. Procedures to be followed by employees performing rescue or medical duties; and

6. The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.

Review of emergency action plan.

- The emergency action plan must be reviewed with each volunteer covered by the plan.
- Heating devices should be situated so that they are not likely to overturn and shall be installed in accordance with their listing, including clearance to combustible material or equipment. Temporary heating equipment, when utilized, should be maintained by competent personnel.
- Smoking should be prohibited at or in the vicinity of hazardous operations or materials.
- Roadways between and around combustible storage piles should be at least 15 feet wide and maintained free from accumulation of rubbish, equipment, or other materials. When storing debris or combustible material inside a structure, such storage shall not obstruct or adversely affect the means of exit.
- A suitable location at the job site should be designated and provided with plans, emergency information, and equipment, as needed.
- Free access from the street to fire hydrants and to outside connections for standpipes, sprinklers, or other fire extinguishing equipment, whether permanent or temporary, should be provided and maintained at all times, as follows:
- Pedestrian walkways should not be so constructed as to impede access to hydrants.
- No material or construction should interfere with access to hydrants, Siamese connections, or fire-extinguishing equipment.
- An ample number of fully charged portable fire extinguishers should be provided throughout the operation. All motor-driven mobile equipment should be equipped with an approved fire extinguisher.

General Safety

- Think & concentrate on your task. Continually ask yourself, “Is this a safe technique?”
- If you are uncertain how to do a task or how to operate a tool, ask your Crew Leader.
- Know who the Site Safety Observer, House Leader, and Crew Leaders on site are.
- Know where the Safety Board is posted, and review its contents and purpose.
- Report every injury or near-injury accident to the House Leader immediately.

- Speak up! If something looks unsafe, it probably is. An observer can spot danger quicker than an involved worker.
- If you notice that any volunteer is exposed to a hazard, whether a risky work practice or a hazardous work site condition, share your concern with your co-worker. If the situation cannot be resolved, engage the SSO, Crew Leader, or House Leader.
- Take adequate rest and water breaks, as often as every 30 minutes on hot days.
- Do not run on jobsite, especially when carrying tools or materials.
- Don't lift beyond your strength. Get a partner. Remember to bend your knees, lift with your legs and keep your back straight.
- Watch your load as you move and turn, so you do not hit anyone with a board or tool.
- Be aware of others working in the vicinity, so you do not miss your mark and strike someone working near you.
- Place materials and supplies as close to the work areas as possible, unless otherwise instructed due to fall hazards.
- Do not use nail guns for framing. Nail guns may be used for fastening ¼" flooring underlayment, and wood trim only by volunteers who have been thoroughly trained by a competent and experienced person.
- When discarding boards, always remove protruding nails or bend them down.
- Do not walk or stand, under or beside suspended loads.
- The use, possession, sale, transfer or purchase of alcohol, illegal drugs or controlled substances on the project are strictly prohibited.
- Firearms and other weapons are forbidden on the jobsite.
- Obtain updated vaccinations such as tetanus shots.
- Keep the jobsite clean: throw away all trash, used rags and other debris.

Personal Protective Equipment (PPE)




- ▭ Wear clothing that is loose enough to permit easy bending but not loose enough to get caught in moving tools. Tie up long hair when working around moving tools.
- ▭ Wear sturdy protective shoes or boots and appropriate gloves.
- ▭ Wear clothing that is adequate and appropriate to the conditions. Wear a hat in the sun.
- ▭ Know where to obtain basic safety equipment as needed including gloves, hard hats, safety glasses, dust masks, ear plugs, etc.,
- ▭ Wear safety glasses when operating power tools, nailing, chiseling, sawing, or doing any other operations that present the potential for eye or face damage.
- ▭ Wear hearing protection when operating power saws or other loud equipment for extended periods of time.
- ▭ Wear a dust mask when sweeping, sanding, painting, insulating or doing anything else that exposes you to dust or any other harmful respiratory substances. Wear a hard hat and beware of falling and flying objects during framing, roofing, siding, and any other activities that present a risk of objects falling from elevated work areas.
- ▭ Wear safety glasses and a mask to help prevent drywall dust or other substances from getting in your eyes and lungs when working overhead.

Hand and Power Tools

There are three elements to consider when operating hand and power tools:
1) The worker
2) The tool
3) The object or material that is being tooled

The Worker

- o Do not operate tools without approval or supervision. Do not operate a tool if you have not been trained to use it.
- o Place yourself in a good body position, well supported and on balance. Do not overreach. Do not over exert yourself or the tool to avoid slips and strains. Most hand tool accidents result from being struck by the tool or a flying chip.
- o Carry only those tools you need.
- o Utility knives are very sharp. Keep your body out of the path of the blade. Always retract the blade or install guard when not in immediate use.

The Tool

- o Intended purpose.
- o Do not use the cord to lift or lower a power tool.
- o Regularly inspect tools for broken or missing pieces. Inspect electrical cords for frayed wires or damaged insulation. Inspect saw guards to make sure they are in place & operating properly. Make sure wooden handles do not have splinters or cracks.
- o Keep utility knives, saw blades, and other cutting objects sharp. Don't bind the blade of any saw.
- o If a saw binds, it will kick back toward the operator.
- o Disconnect the power source before moving
- o Bench power tools, making adjustments, or changing bits or blades.
- o Do not fasten extension cords with staples.
- o Do not force tools beyond their Capacity.
- o Do not use tools for pry-bars.
- o Do note leave tools on scaffolds, ladders or overhead working spaces.
- o Do not throw tools from one Location to another, or one person drop them to lower levels.
- o Guards or shields must be installed on all power tools before use.
- o All defective power tools must be taken out of service immediately and tagged defective. Wrenches, including adjustable, pipe, end, and socket w

- o Wrenches shall not be used when jaws are sprung to the point that slippage occurs.

- o The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

The Object being Tooled

- o Never support a work piece with your hands. Place the work piece on a firm surfand clamp it securely or have a co-worker hold it.
- o Don't cross hands to stabilize material, especially when using a miter saw. Have someone hold it for you or use a clamp to hold it in place.

Extension Cords

o Extension cords must be of the three-wire type with ground plug. Extension cords and cables must be protected from traffic or sharp corners.
o Cords must be kept out of walkways and other areas where they present trip hazards
o Electrical connection, cables, etc. must be kept away from water or damp surfaces.
o No flat cords allowed.
o Bad cords must be taken out of service and tagged defective and repaired or removed from jobsite.

Tool Safety Tips

Never carry a tool by the cord.

Never yank the cord to disconnect it from the receptacle

Keep cords away from heat, oil, or sharp edges (including the cutting surface of a power saw or drill.)

Disconnect tools when not in use, before servicing and when changing accessories such as blades, bits, etc.

Avoid accidental starting. Do not hold fingers on the switch button while carrying a plugged-in tool.

Use gloves and appropriate safety footwear when using electric tools.

Use gloves and appropriate safety footwear when using electric tools.

Store electric tools in a dry place when not in use.

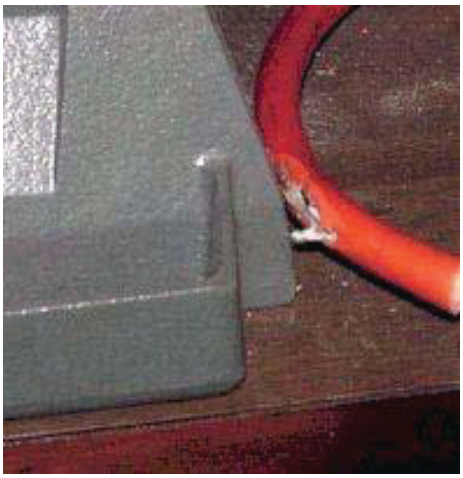
Do not use electric tools in damp or wet locations unless they are approved for that purpose.

Keep work area well lighted when operating electric tools.

Ensure that cords from electric tools do not present a tripping hazard.

Remove all damaged portable electric tools from use and tag them: “Do Not Use.”

Use Double-Insulated Tools.



Ladders – General

Selection

□ Ladder must be commercial grade and duty rating or load capacity rating must not be exceeded

□ Inspect ladders before each use, and do not use ladders that are in disrepair.

□ If, on inspection, a ladder appears to need repair, mark it “DO NOT USE,” and remove it from service until it is repaired

□ Use ladders for the purposes for which they were designed. Do not use ladders for skids, braces, or workbenches.

□ Do not use metal ladders near live electrical parts or wires. Ladders to be used near live electricity should have nonconductive side rails.

□ Make sure ladder size meets the job demands. Do not place your feet on the top the rungs or treads of any ladder nor on the top platform of a stepladder.

□ Check for oil, grease, mud or other slipping hazards before each use, and clean the ladder as needed.

El Amar for Contracting generally does not use job-made ladders. If a job- made ladder is required for a special application, it must be constructed using ANSI A14.4-1992 as a guide. A copy of this document is available in the El Amar for Contracting Construction Department office.

Preparation

□ Do not use any ladder until you have been trained on the proper use of ladders by your supervisor or other El Amar for Contracting personnel.

Place the ladders on firm footing, such as on solid soil or on a stable piece of lumber. The preferred method of leveling a ladder is to dig out the soil under the leg in contact with the grade with a claw hammer or similar tool so that booth legs are resting on a stable bearing surface.

When working in an area that is generally soft, use a 2”x10”x8’ with an attached 2”x4”x8’ cleat and support it at both ends and in the center to provide a stable bearing surface.

If a ladder must be used on a slippery, use slip-resistant feet and take extra care when climbing it.

When ladders are used to access elevated work areas such as pump jack walk boards, scaffolds, and roofs, extend the ladder at least three feet beyond the supporting object and firmly attach the ladder to the walk board, scaffold, roof, wall, joists, or trusses.

- Place any ladder used to climb onto a roof at least six feet from the gable end.
- If it becomes necessary to place a ladder in or over a doorway, barricade the door.

- Secure or barricade any ladder placed in a location where it could be displaced by workplace activities or traffic.
- Keep the area around the top and bottom of a ladder clear.

Climbing

Keep body near the middle of the ladder.
When climbing up or down, face the ladder and grasp it with at least one hand at all times.
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 carry tools.
Avoid leaning off the edge of a ladder. Move the ladder frequently so as not to be tempted to lean too far.
While a worker is on a ladder, the person monitoring the ladder(s) will be in position to observe the work taking place from the ladder(s). Specifically if the worker using the ladder is leaning or reaching to a point where both shoulders are outside the vertical plane of one of the upright sections, the observer will recommend moving the ladder to a location that will not require leaning.
No one should move, shift, or extend a ladder while it is in use.
Do not leave tools, paint, or materials on the steps or top of any ladder when not in immediate use.

Step Ladders

- Do not place your feet on the top three rungs or treads of any ladder nor on the top platform of a stepladder.
- Always insure that all 4 legs are fully supported in a level position.
- Before climbing stepladders, make sure spreaders are locked in place.

Extension and Straight ladders

- When setting extension or straight ladders, use the four-to-one rule: for every four feet of height, move the bottom of the ladder one foot from the wall.

This is improperly using the ladder, as no work should be done from the top rung.

	
This ladder is being used at the proper angle, and appears to be stable and secure.	**Non-self-supporting ladders, which must lean against a wall or other support, are to be positioned at such an angle that the horizontal distance from the top support to the foot of the ladder is about ¼ the working length of ladder.**

- ▭ When using an extension ladder for climbing onto or off of a roof or other surface, the top of the ladder must extend three feet above the top of the surface.
- ▭ Extension ladder sections must be overlapped a minimum of three rungs.

- ▭ Secure straight and extension ladders by tying off the top or securing the base.
- ▭ Before climbing extension ladders, make sure latches are properly engaged.

□ While a worker is mounting or dismounting the ladder, another worker must hold the ladder in position.

Scaffolding and Pump Jacks

□ Scaffolds must be designed by a qualified person and be constructed in accordance with that design.

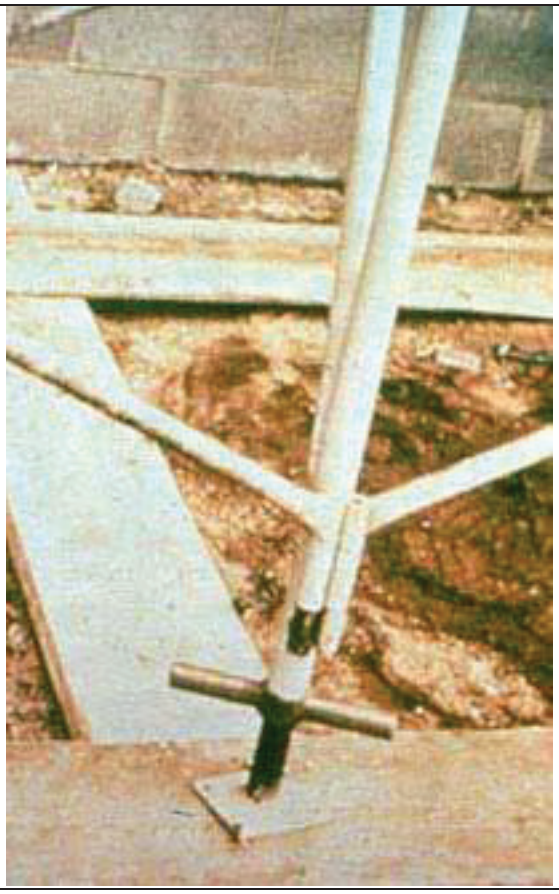
□ All persons who erect, dismantle, or perform work while on a scaffold must be trained by a qualified person to recognize the hazards associated with the scaffold and the means of methods to control or minimize those hazards.

□ Follow all pump jack and scaffolding manufacturer's instructions and the safety procedures.

□ Inspect all scaffolding and pump jacks before starting work to determine if safety features are in place and construction is sound.

□ Ensure that the footing and anchorage for scaffolds are sound. Scaffold frames should be erected level and plumb and on a firm base.

Poor foundation: Scaffold end frames, which have no base plates, erected on top of scrap wood and unstable cement blocks.



Proper foundation on wood sills: Scaffold end frames equipped with adjustable screw legs and with base plates set on mud (wood) sills.

- ☐ Scaffolding greater than six feet must be equipped with handrails, midrails, toeboards and deckboards. Cross bracing shall not be used as handrails.

- ☐ Scaffold planks must extend a minimum of six inches but no more than 12" over the end supports. All scaffold boards are to be cleated on each end and be of scaffold-grade lumber.

- ☐ Provide an access ladder or the equivalent for all scaffolds. Climbing the side of scaffolding is not permitted unless the scaffold is designed with a built-in ladder.

- ☐ A body harness must be worn and properly tied off on any scaffold platform greater than six feet in height and not equipped with standard handrails, midrails or decking.

- ▭ Scaffolds must be tied off or stabilized with outriggers when the height is more than three times the smaller dimension. Scaffolds must be tied off horizontally every 30-feet.
- ▭ Never change or remove scaffold members unless authorized. Do not alter scaffolding members or use makeshift moorings. Have a "competent person" (House Leader, El Amar for Contracting Staff) review any adjustments.

This scaffold is not in compliance with the regulations because it mixes several different scaffold components in the same scaffold. The guardrails are also improper because they are not complete.

- ▭ Know safe working loads of scaffolds and work within those limits.

- ▭ Do not allow tools, materials, or debris to accumulate on scaffold. Toe boards should be installed when people are working below the scaffold.
- ▭ Materials shall be located on the scaffold so as to be convenient to the volunteers working from the scaff

Controlled Access Zones

The House Leader must establish Controlled Access Zones (CAZ) to stop volunteers from entering hazardous areas where overhead work creates the risk of falling objects such as roofing, trusses, floor joist and sheathing installation.

These workers are not protected from being struck by falling objects because they are working around/under other workers and not wearing hardhats.

The CAZ boundaries must be clearly marked using caution tape, ropes, chains and other barriers that can be used to clearly delineate a CAZ. All protective elements of the CAZ must be implemented prior to the beginning of work.

The boundaries of the CAZ shall be communicated by the House Leader or SSO to all volunteers at the time the CAZ is established.

Those volunteers trained and authorized to work in the CAZ will be identified by the house leader and communicated to the volunteers.

The House Leader shall establish a person to control access to the CAZ and monitor workers in the CAZ to ensure they do not engage in unsafe work practices.

The House Leader may suspend overhead work for brief periods as necessary to allow other workers to pass through the CAZ.

Floor Joist and Sheathing

The first several joists shall be installed by workers supported by interior ladders, the ground, or scaffolding or from the exterior grade.

Each successive floor joist or truss will be rolled into place and secured from a platform created from a sheet of plywood laid over the previously secured floor joists or trusses.

After several joists are installed and braced, trained workers may work from a platform comprised of sheets of plywood attached to the braced floor joists. Work performed within four feet of the leading edge should be done facing the edge of the deck while in a crouching position. Minimize the need to stand within four feet of the leading edge.

Any workers not engaged in the leading edge construction while leading edges still exist (e.g., nailing off partially fastened sheets of sheathing or cutting the deck for the basement stairs) shall not be permitted within six feet of the leading edge under construction.

Stairway openings and other openings must be either protected by sturdy handrails or covered with well-supported temporary sheathing to prevent workers from falling through.

Stairways and Guarding Breaks in Elevation

Securely install a temporary stair, ladder, or ramp to provide access to any break in elevation over 19". Temporary stairs require risers no greater than 7½", treads no smaller than 10", and risers and treads that differ by no more than 1/8" from step-to-step.

Temporary stairs must have landings every 12 feet that are at least 22 inches wide and 30 inches deep and must be free of dangerous projections such as protruding nails.

Provide a handrail at 36" above the nose of the steps on any stairway or ramp with 4 or more risers or which rises more than 30".

Erection of Exterior Walls

o Whenever possible, completely assemble and sheath walls on the deck before rising.

o When raising walls, make sure there are enough people to comfortably lift and hold the wall, and have bracing ready so it can be fastened immediately.

o Make sure the wall is fully supported until the bracing is securely fastened.

o Workers constructing exterior walls shall complete as much cutting of materials and other preparation as possible away from the edge of the deck or by standing on the exterior grade.

o Guardrails must be installed in doorway openings that involve an elevation change in excess of 19" as soon as operations directly associated with the doorway are complete.

o Guardrails must be installed in windows or other wall openings whose lower sill is less than 39" above the interior floor and more than 6' above the exterior grade as soon as operations directly associated with the wall opening are complete.

o A House Leader is required to monitor this work and warn anyone who approaches the unprotected edge.
o Materials for operations shall be conveniently staged to minimize fall hazards.

Setting Roof Trusses

- Walking on top plates of exterior walls is prohibited. Walking on the top plates of interior walls when there are no braced trusses available for support is prohibited.
- Ensure truss stability throughout all stages of installation by proper use of fasteners, lacers, truss locks and braces. Be sure that trusses are adequately secured before workers use them for support.
- Install a “strong back” to support the gable-end truss. A “strong back” is an L made of two 2x4s nailed together with 16d nails 16” o.c. The “strong back” should be long enough to extend ¾ of the height of the truss and at least 4’ down onto the supporting wall. Fasten the “strong back” into the supporting framing with 16d nails 16” o.c.
- Install the gable end and the next truss by standing on interior scaffolding or ladders leaning on the side walls at points where the walls can support the weight of the ladder. A worker will then climb onto the top plate of an interior wall via a ladder to secure the peaks of the first two trusses being set.
- Trusses must be braced using the manufacturer’s specification sheet that came with the trusses.
- Once the first two trusses are installed and adequately braced (as determined by the House Leader using the manufacturer specifications), workers can stand on the top plate of the interior walls or on the bottom chord of braced trusses to support and secure the peak of the next truss while maintaining contact with the previously installed truss. Continue to use interior scaffolding or ladders leaning against the sidewalls to secure the ends of the trusses.
- Once truss or rafter installation begins, workers not involved in that activity shall not stand or walk below or adjacent to the roof opening or exterior walls in any area where they could be struck by falling objects.
- Workers positioned at the peaks or in the webs of trusses or on top of the ridge beam shall work from a stable position, either by sitting on a "ridge seat" or other equivalent surface that provides additional stability or by positioning themselves in previously stabilized trusses/rafters and leaning into and reaching through the trusses/rafters.
- Workers shall not remain on or in the peak/ridge any longer than necessary to safely complete the task.
- Workers will leave the area of the secured trusses only when it is necessary to secure another truss/rafter.
- The workers responsible for detaching trusses from cranes and/or securing trusses at the peaks traditionally are positioned at the peak of the trusses/rafters. There are also situations where workers securing rafters to ridge beams will be positioned on top of the ridge beam.

Installing Roof Sheathing

The bottom row of roof sheathing may be installed by workers standing in truss webs or on ladders.
After the bottom row of roof sheathing is installed, a slide guard extending the width of the roof shall be securely attached to the roof.
This slide guard should consist of a 2x4 nailed through the sheathing to the supporting trusses with 2 - 16d nails per truss and a 2x4 or 2x6 nailed perpendicular to the roof above the first 2x4 with 16d nails on 16" centers.
Workers should install the slide guard while standing in truss webs or ladders and leaning over the sheathing; additional rows of roof sheathing may be installed by workers positioned on previously installed rows of sheathing.
Slide guards are to be constructed of no less than nominal 4" height lumber capable of limiting the uncontrolled slide of workers and materials.
A slide guard can be used to assist workers in retaining their footing during successive sheathing operations; and additional slide guards shall be securely attached to the roof at intervals not to exceed 13 feet as successive rows of sheathing are installed.
For roofs with pitches in excess of 9-in-12, slide guards will be installed at four-foot intervals.
Work performed within four feet of the leading edge should be done facing the edge of the deck while in a crouching position (Minimize the need to stand within four feet of the leading edge).
Holes or openings that are made in the roof shall be barricaded or covered with substantial materials that are firmly anchored.
Roof surfaces shall be inspected for slipping hazards. The Site Safety Observer will monitor the condition of the roof and maintain a high degree of awareness among the volunteers of any slipping hazards that are present.
Sawdust and other loose materials should not be allowed to accumulate on the roof surface as its accumulation presents a slipping hazard.
Workers shall wear proper footwear that reduces the potential for slipping.
All workers will ensure that they have secure footing before they attempt to walk on the sheathing, including cleaning shoes/boots of mud or other slip hazards.
Do not step backwards on a roof. Every year, experienced roofers fall off the roof by stepping backwards off of the edge.
Take precautions when climbing onto or off of the roof. This is when many roof related falls occur.
To minimize the time workers must be exposed to a fall hazard, materials will be staged to allow for the quickest installation of sheathing while maintaining at least 6' from a leading edge.
Materials shall not be stored on the roof within 6 feet of the gable or rake edge of the roof.
When wet weather (rain, snow, or sleet) is present, roof-sheathing operations shall be suspended unless safe footing can be assured. When strong winds (above 20 miles

per hour) are present, roof-sheathing operations are to be suspended unless windbreakers are erected.

Never work on a roof alone.

Roofing Work

The roof surfaces shall be inspected for slipping hazards and any such hazards will either be eliminated or measures will be implemented so that workers can safely avoid such hazards.

Workers must wear appropriate footwear to reduce the potential for slipping and to maintain good footing.

Any damaged portions of the roof must be repaired as soon as practicable while roofing operations are taking place.

Any openings such as skylights or holes, or other openings where workers would not have safe footing must be covered or surrounded by guardrails.

Workers shall not access the roof within 6 feet of the rake edge, except where that limitation would prevent the performance of work.

Supplies and materials shall not be stored within 6 feet of the rake edge.

Roofing operations shall be suspended when adverse weather such as rain, wind, snow or sleet create hazardous conditions.

Slide guards (6” high) must be installed and run continuously along the lower eave.

No more than three rows of roofing material shall be installed along the lower eave before the slide guard is installed.

For roof slopes over 6 in 12 and up to 8 in 12, additional slide guards shall be installed at intervals no wider than 8 feet.

Insulation and Drywall

Fiberglass particles can be harmful. When handling insulation, wear sturdy, loose, long sleeved clothing, gloves and safety glasses or goggles, dust mask, and a hat. If particles get on your skin, do not scratch. Shower 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.

Landscaping

Before digging, refer to the proper drawings to locate underground utilities such as electric and gas lines and TV and telephone cables.

Safe Lifting to Prevent Back Injuries

☐ Loads over 25 pounds may require assistance. Test the item you need to lift, and if it is too heavy, get help from a co-worker. Never lift something that is too heavy for you to lift.

☐ Position yourself so that you are as close to the load as possible

☐ Bend at the knees with your back straight down to the load.

Grasp under the load with as much of your hand as possible, not just the finger tips.

☐ When lifting, let your legs do the work; keep your back as straight as possible.

Carry the load around waist high; avoid placing the load on one shoulder.

Do not twist while carrying a load.
Instead, pivot with your legs.

When walking, select a path that is clear of obstacles, flat, and straight

When placing a load down, gently lay the load down and slide it in place.

Appendix A - Formal Safety Training Class Description

Formal Training Program Topics

Construction Safety Manual, Safe Site Design, and Safety Checklists

Fall Protection Plan (Appendix D)

Safety promotion and coaching

OSHA Safety Topics (Power point presentations)

Electrical

Power Tools

Pump Jacks and Ladder Jacks

Ladder

Stairs and Ladders

- Work Site Emergency Procedures
- First Aid/CPR Certification
- Fire Extinguisher Application and Use (Power Point Presentation)
- Hazard Communication & Chemical Management
- Electrical Safety and Energy Control Procedures (LO/TO)
- Complete appropriate tests and forms

Appendix B - El Amar for Contracting Safety Incident Review Form

Purpose of the Review:
Understand what happened and the root causes of the incident
Prevent the incident from happening again
When:
Date/Time of Incident: _____
Date/Time of Review: _____
Where: (Work site address and specific location on the site where the incident occurred)

_____
_____
Who was Involved?: (Identify everyone who was injured and otherwise involved in the incident. Note whether they were volunteers or El Amar for Contracting staff)

_____
_____
_____
What Happened? (Describe the Incident and conditions or work practices that contributed to the incident)

_____
_____
_____
_____
What can we do to prevent this from happening again? _____

_____
_____
Personnel Involved in Incident Review:

_____
_____

Appendix C - El Amar for Contracting Daily Safety Huddle Planner

(Post this on the Safety Board after the Daily Safety Huddle)
Date:_____
Location:_____
Building Tasks:

_____
_____
Unusual Conditions or Hazards:

_____
_____
_____
Safety Board and Safety Manual Location:

_____
Fire Extinguisher Location:

_____
Toilet Facilities and drinking water Location:

_____

Special On-Site Resources	Safety Training	First Aid Training	Cell Phone	Other

	Safety Huddle	selected Crew(s)
Safe Site Design		
General Safety	Required	
Personal Protective Equipment (PPE)	Required	
Hand and Power Tools		
Ladders- General		
Step Ladders		
Extension and Straight Ladders		
Controlled Access Zones		
Scaffolding and Pump Jacks		
Floor Joist, Deck Work		
Exterior Walls		
Setting Trusses		
Installing Roof Sheathing		
Insulation and Drywall		
Landscaping		
Safe Lifting to Prevent Back Injuries	Required	

Signature: **Date:**

Appendix D - Fall Protection Plan

I. Statement of Policy and Purpose of the El Amar for Contracting Fall Protection Plan

We have a duty as an employer to provide fall protection for our employees who work at elevated locations in the El Amar for Contracting construction process. This Fall Protection Plan is designed to meet the intent of the OSHA CFR 29 1926.500 Subpart M.

We also have an obligation to our volunteers to provide fall protection for those who work at elevated locations in our El Amar for Contracting construction process. The purpose of this plan is to supplement our existing safety and health program and to ensure that every employee and volunteer recognizes workplace fall hazards and takes the appropriate measures to address those hazards.

This Fall Protection Plan addresses the use of conventional fall protection for a number of project activities, as well as identifies specific activities that require non-conventional means of fall protection. During the construction of residential buildings under 48 feet in height, it is sometimes infeasible or it creates a greater hazard to use conventional fall protection systems at specific areas or for specific tasks. The areas or tasks may include, but are not limited to:

Setting and Bracing of Roof Trusses and Rafters
Installation of Floor Joists and Sheathing
Roof Sheathing Operations
Roofing Work, and
Erecting Exterior Walls.

In these cases, conventional fall protection systems may not be the safest choice for builders. This plan is designed to enable employers, employees, and volunteers to recognize the fall hazards associated with this job and to establish the safest procedures that are to be followed in order to prevent falls to lower levels, including falls through holes and openings in walking/working surfaces.

It is the responsibility of the El Amar for Contracting to ensure that all affected employees and volunteers read and understand the fall protection plan, receive the appropriate training, and adhere to the procedures of this plan.

Role of the House Leader and Site Safety Observer (SSO)
During work at elevated locations such as on ladders, scaffolds, roofs, planking, pump jacks, etc., the House Leader will ensure that the appropriate fall protection safety huddle topics are presented and site workers review and complete the appropriate training forms.

If deemed necessary by the House Leader, the SSO or Crew Leader shall be assigned as a safety observer for this work without any additional duties that might provide distractions. The SSO shall be positioned so as to be able to observe the work and interact with the workers.

The SSO's and Crew Leaders shall provide safety coaching, as needed, to site workers throughout the duration of the work being performed at elevated locations. The El Amar may also provide safety coaching for Construction Construction Manager, Volunteer Director, and House Leaders.

Responsibilities of El Amar for Contracting Employees and Volunteers
It is the responsibility of each employee and volunteer to follow the El Amar for Contracting fall protection guidelines and the instructions of the House Leaders. It is also the responsibility of the employees or volunteers to bring to the attention of the House Leader, SSO, or Crew Leader any unsafe or hazardous conditions or practices that may cause injury to either themselves or any other employees or volunteers.

II. Training of Workers

The El Amar for Contracting Fall Protection Plan requires that only trained people be assigned to perform work at elevated locations. We intend to prepare our employees and volunteers to perform work at elevated locations by providing specific training on the safe work practices that are to be used during a particular task or series of tasks on a particular day.

To be able to work at elevated work locations, El Amar for Contracting employees and volunteers must complete the safety training (including fall protection training) as described in Chapter _3_ (El Amar for Contracting Safety Process). In addition, volunteers must be 18 years of age or older. All El Amar for Contracting employees, House Leaders, and Site Safety Observers working on project activities subject to this plan must read and understand this plan and shall complete the formal and on-the-job training appropriate to the work activities to be conducted.

III. Fall Protection Systems to Be Used on the Job

Installation of roof trusses/rafters, exterior wall erection, roof sheathing, floor sheathing, and joist/truss activities will be conducted only by employees and volunteers who are specifically trained to do this type of work and are trained to recognize the fall hazards.

The training programs and safety checklists in this plan are used to enable El Amar for Contracting employees and volunteers to recognize the fall hazards associated with the job and to establish safe work procedures that are to be followed in order to prevent falls to lower levels or through openings and/or leading edges associated with walking/working surfaces.

Each employee or volunteer will strictly adhere to these procedures except when doing so would expose the employee or volunteer to a greater hazard. If, in the employee or volunteer's opinion, this is the case, the employee or volunteer is to notify the House Leader of his/her concern and have the concern resolved before proceeding.

A. Work Site Conditions
Prior to beginning work at elevated locations, the work site will be prepared using the "Safe Site Design" and other safety checklists presented in Chapter 5. For example, the work site below elevated locations will be cleared of all movable materials, which could increase the severity of an injury that might result from a fall. Materials, which cannot be moved, will be covered in a manner, which would serve to reduce the effect of a fall (for example, several sheets of plywood should be placed over the concrete foundation for a porch while roofing work is in progress overhead).

B. Controlled Access Zones
The "Controlled Access Zone" checklist, presented in Chapter 5 will be used to establish the CAZ to prevent hazards associated with falling objects during installation of floor joists, floor sheathing, exterior walls, roof trusses, roof sheathing and roof work.

C. Installation of Floor Joists and Sheathing
During the installation of floor joists and sheathing, El Amar for Contracting employees and volunteers will strictly adhere to the procedures as listed in the "Floor Joists and Sheathing" safety checklists presented in Chapter 5 of this manual.

D. Erecting Exterior Walls
During the erection of exterior walls, El Amar for Contracting employees and volunteers will strictly adhere to the procedures as listed in the "Erecting Exterior Walls" safety checklists presented in Chapter 5 of this manual.

E. Installation Procedures for Roof Truss and Rafter Erection
During the erection and bracing of roof trusses/rafters, conventional fall protection may present a greater hazard to workers. On this job, safety nets, guardrails and personal fall arrest systems will not provide adequate fall protection because the nets will cause the walls to collapse, while there are no suitable attachment or anchorage points for guardrails or personal fall arrest systems.

On this job, requiring workers to use a ladder for the entire installation process will cause a greater hazard because the workers must stand on the ladder with their backs or sides to the front of the ladder. While erecting the truss or rafter, the worker will need both hands to maneuver the truss and therefore cannot hold onto the ladder. In addition, ladders cannot be

adequately protected from movement while trusses are being maneuvered into place. Many workers may experience additional fatigue because of the increase in overhead work with heavy materials, which can also lead to a greater hazard.

Exterior scaffolds cannot be utilized on this job because the ground, after recent backfilling, cannot support the scaffolding. In most cases, the erection and dismantling of the scaffold would expose workers to a greater fall hazard than erection of the trusses/rafters.

On all walls eight feet or less, workers will install interior scaffolds along the interior wall below the location where the trusses/rafters will be erected. "Sawhorse" scaffolds constructed of 46-inch sawhorses and 2x10 planks will often allow workers to be elevated high enough to allow for the erection of trusses and rafters without working on the top plate of the wall.

In structures that have walls higher than eight feet and where the use of scaffolds and ladders would create a greater hazard, safe working procedures will be utilized when working on the top plate and will be monitored by the House Leader, SSO and Crew Leaders. During all stages of truss/rafter erection, the stability of the trusses/rafters will be ensured at all times.

The “Setting Roof Trusses” safety checklist in Chapter 5 of this manual presents additional procedures that will be strictly followed to prevent fall injuries to El Amar for Contracting employees and volunteers.

F. Roof Sheathing Operations

Workers typically install roof sheathing after all trusses/rafters and any permanent truss bracing is in place. Roof structures are unstable until some sheathing is installed, so workers installing roof sheathing cannot be protected from fall hazards by conventional fall protection systems until it is determined that the roofing system can be used as an anchorage point. At that point, employees shall be protected by a personal fall arrest system.

Trusses/rafters are subject to collapse if a worker falls while attached to a single truss with a belt/harness. Nets could also cause collapse, and there is no place to attach guardrails. Only trained workers shall install roof sheathing.

Once roof sheathing installation begins, workers not involved in that activity shall not stand or walk below or adjacent to the roof opening or exterior walls in any area where they could be struck by falling objects.

The “Installing Roof Sheathing” safety checklist in Chapter 5 of this manual presents additional procedures that will be strictly followed to prevent fall injuries to El Amar for Contracting employees and volunteers.

G. Roofing Work

Roofing work is the removal, repair or installation of weatherproofing and roofing materials such as shingles, tile and tar paper. The alternative procedures may only be used where the roof slope is 8 in 12 or less and where the fall distance, measured from the eave to the ground

level is 25 feet or less. The “Roofing Work” safety checklist in Chapter 5 presents the additional procedures that will be strictly followed to prevent falls to El Amar for Contracting employees and volunteers.

III. Enforcement

Constant awareness of and respect for fall hazards, and compliance with all safety rules are required when working on an El Amar for Contracting worksite. The House Leader is responsible for enforcing safety requirements on the work site. House Leaders, Crew Leaders, and Site Safety Observers have the responsibility to provide coaching about the elements of the Fall Protection Plan to employees and volunteers. Workers who are unwilling to respond to this coaching will be asked to leave the worksite. Any controversies that result from this request will be addressed by the El Amar for Contracting Construction Staff assigned to the worksite.

IV. Accident Investigations

All accidents that result in injury to workers or significant near misses that could easily have resulted in injury to workers, regardless of their nature, shall be investigated and reported. It is an integral part of any safety program that investigations be documented as soon as possible after the incident so that the cause and means of prevention can be identified to prevent a recurrence. Forms for this purpose are located in Appendix B & I of the El Amar for Contracting Construction Safety Manual. In the event that an employee or volunteer falls or there is some other related, serious incident occurring, this plan shall be reviewed by the Construction Committee and other appropriate staff and volunteers to determine if additional practices, procedures, or training need to be implemented to prevent similar types of falls or incidents from occurring.

V. Changes to Plan

Any changes to the plan will be made jointly by the El Amar for Contracting Construction Safety Committee, Construction Manager, Chair of the Construction Committee and Chair of the Safety Committee. This plan shall be reviewed periodically by the Construction Safety Committee to determine if additional practices, procedures or training need to be implemented by the House Leaders to improve or provide additional fall protection. Workers shall be notified and trained, if necessary, in the new procedures. A copy of the most recent revision of this plan shall be maintained at the jobsite.

Appendix E - Work Site Audit Form

Date: _____

Project: _____

SSO: _____

	Jobsite Condition	YES	NO
1	Is the jobsite first aid equipment fully stocked?		
2	Is there PPE available for all workers (gloves, hardhats, safety glasses, dusk masks, ear plugs, etc.)?		
3	Are there protective barriers around all opening in floors and walls?		
4	Is the jobsite clear of debris especially at the stairs, halls and open floor areas?		
5	Is there any scrap lumber with exposed nails on the jobsite?		
6	Are all materials and equipment stored within six feet of the perimeter of the structure that may fall to lower levels?		
7	Are all electrical cords free of entanglement and in good repair?		
8	Are all electrical tools equipped with Ground Fault Circuit Interrupters (GFCI)		
9	Are there spilled liquids in areas that may cause slipping hazards?		
10	Are all jobsite ladders in good repair?		
11	Are all jobsite guardrails in good repair?		

Comments:

_____

_____

_____

Appendix F- The Building Team Roles & Definitions

Volunteers
Volunteers form the backbone of Habitat for Humanity by investing their time and talent in all aspects of Habitat's Mission. Volunteers ranging from novices to skilled professionals actually perform the construction tasks under the guidance and direction of the El Amar for Contracting Construction Manage.

House Leaders
House Leaders are volunteers who commit to being on the site every work day to direct and supervise all volunteer work. When Homebuyers are on site, the House Leader will introduce them to the volunteers and integrate them into the day's construction activities. It is often possible for 2 or 3 qualified people to share this responsibility throughout the duration of the build. It is expected that the House Leader(s) have the experience to guide the Crew Leaders, Site Safety Observer, and other volunteers through most aspects of residential home construction, and to run a safe, orderly and productive job site. If qualified personnel cannot be recruited from within the sponsoring organization for this role, El Amar for Contracting can provide this resource.

Crew Leaders
Crew Leaders are volunteers whose principle function is to monitor and coach other volunteers to produce acceptable results in a safe manner. There are often 10-20 volunteers on a job site, so the House Leader relies upon 2 to 3 Crew Leaders, each of whom usually guides 4 to 6 unskilled or semi-skilled volunteers. Crew Leaders demonstrate tasks, maintain standards, monitor safety, and assure that the volunteers have enough meaningful work to enjoy a satisfying experience. Although it is not necessary that the crew leaders actually perform any work on the job site, they may elect to perform tasks if all of the volunteers in their crew are adequately engaged and the tasks do not require a high level of supervision.

Site Safety Observers
Site Safety Observers (SSO's) are volunteers with special training and awareness of safe building practices. There should be an SSO on site whenever any volunteers are working Ideally, the SSO is a person who has completed the Formal Safety Training described in Appendix A of this manual and learned how to implement the El Amar for Contracting Safety Process defined in Chapter 2. However, when no formally trained SSO is available, the House Leader should name a suitable volunteer to be a temporary SSO for the Day, and should direct that person to immediately review the applicable sections of the Construction Safety Manual, and to help operate a safe work site for all volunteers.

Each organization should recruit 3 to 5 volunteers to become trained SSO's and ensure that least one of them is on site every workday.

While the Site Safety Observers may perform construction task on the site with the other volunteers as time permits, their principle responsibility is maintaining an awareness of safety conditions on the work site and interacting with the volunteers about these safety issues.

Specialty Crews
Specialty Crews are experienced and/or skilled volunteers who perform tasks that require timing, finesse, expertise, and/or patience. They can dramatically improve the effectiveness and enjoyment of the large groups of volunteers that typically work on Saturdays by making key preparations in advance such as completing tasks left over from the previous Saturday, repairing construction errors, installing siding trim, etc. it is advisable that each organization recruits a small Specialty Crew from among its own contacts to help smooth out bumps in the construction process.

If anyone from your organization wishes to join one of the El Amar for Contracting Dedicated Specialty Crews, he/she should contact the El Amar for Contracting Construction Volunteer Director.

Couriers
Couriers are volunteers with vans or pick-up trucks that make trips to the lumberyard, hardware store, or El Amar for Contracting warehouse. They can dramatically improve the effectiveness and enjoyment of other volunteers by insuring that required tools and materials are available on a timely basis.

Couriers usually transport tools, but occasionally they may be called upon to transport building supplies. Each organization should plan to have a Courier available during each work period. However, often there are no trips needed and the Courier works on construction tasks with other volunteers throughout the day.

Ideally, the Courier will be able to pickup the items needed for any given work period either very early in the morning or on a prior day, so that everything is in place as large groups of volunteers begin work.

El Amar for Contracting Construction Director
The Construction Director is on the El Amar for Contracting staff and oversees all aspects of the Construction Department including land acquisition, site development, house plans and specifications, Subcontractor selection, Material Supplier sections, etc.

El Amar for Contracting Construction Manager
The Construction Manager on the El Amar for Contracting staff reports to the Construction Director and oversees all aspects of each house-building project including Volunteers, Subcontractors, and Material Suppliers. The Construction Manager remains in very close contact with the House Leaders throughout the entire project to provide necessary coordination and consultation. The work of the Construction Manager may be augmented by the efforts of Volunteer Superintendents.

El Amar for Contracting Volunteer Director
The Volunteer Director recruits and directs the work of numerous individuals and groups who work on El Amar for Contracting projects on a weekly basis. House Leaders can request the services of a group for a specific task at a particular time by contacting the El Amar for Contracting Volunteer Director, who will attempt to match a group of volunteers to the stated need if possible. Occasionally, the Volunteer Director will contact a House Leader to ask that a group of volunteers be integrated with the existing workers on a particular day.

Sub-Contractors
Subcontractors perform tasks that require a high degree of skill and licensing. El Amar for Contracting hires subcontractors for excavation and grading, foundation, waterproofing, concrete flat work, electrical, plumbing, heating, drywall finishing, and attic insulation.

Contractors always work under the direction of El Amar for Contracting Staff. House Leaders and Crew Leaders should never give direction to contractors.

If any qualified professionals within your organization's network would be interested in donating all or a portion of their efforts on one or more projects, they should contact the El Amar for Contracting Construction Director.

Material Suppliers
Material Suppliers provide goods under the direction of El Amar for Contracting Staff who ensure the volunteers consistently have the correct materials at the right times. House Leaders a Crew Leaders should never give direction to Material Suppliers.

If any material suppliers within your organization's network would be interested in donating all or a portion of their goods to one or more projects, they should contact the El Amar for Contracting Construction Director.

Safety Committee
The Safety Committee is part of the El Amar for Contracting Construction Committee, which meets under the direction of the El Amar for Contracting Construction Director. The Safety Committee is involved in developing, implementing, managing and improving the El Amar for Contracting safety program.

APPENDIX G- ACCIDENT INVESTIGATION REPORT

Date & Time of accident		Location	
Injured Persons(s)		Resulted in ____Injury ____Fatality Property Damaged	
		Date/Time Of Investigatio	
Tasks Being Performed			
Describe Accident Facts & Events			
Root Cause Analysis			
Check ALL that apply to this accident			
Unsafe Acts		**Unsafe Conditions**	
Improper work technique		Poor work area design	
Safety rule violation		Unsafe operation method	
Improper PPE or PPE not used		Improper maintenance	
Operating without authority		Lack of direct supervision	
Operating at improper speeds		Lack of experience	
By-passing safety devices		Insufficient knowledge of job	
Protective equipment not in use		Slippery conditions	
Improper loading or placement		Excessive noise	
Improper lifting		Inadequate guarding of hazards	
Servicing machinery in motion		Defective tools/ equipment	
Horseplay		Poor housekeeping	
Drug or alcohol use		Insufficient lighting	
Re-Training Assigned (date)		Unsafe Condition Guarded	
Re-Training Completed (date)		Unsafe Condition Corrected (date)	

Basic rules for accident investigation:

- *Find the cause to prevent future accidents- Use an unbiased approach during investigation*
- *Interview witnesses & injured associated at the scene- conduct a walkthrough of the accident.*
- *Conduct interviews in private-interview one witness at a time.*
- *Get signed statements from all involved.*
- *Take photos or make a sketch of the accident scene.*
- *What hazards are present-what unsafe acts contribute to accident.*
- *Ensure hazardous conditions are corrected immediately*