13.0 WINDOWS AND EXTERIOR DOORS SECTION

1. Introduction

Installing the windows and doors typically can be done in one workday, and can usually be accomplished at the same time as other tasks such as setting trusses, building soffits, and roof sheathing. It is important that volunteers take their time and install these items correctly, especially the exterior doors.

2. Safety Issues

- Use a ladder that will reach the work. Move the ladder with your work & don't lean. Place ladders on solid footing and have someone holding the ladder.
- Habitat requires that hard hats be worn if work is happening overhead.
- Lift heavy windows carefully and with many hands.

3. Prior tasks to have been completed before starting

- All exterior walls completely rough framed
- Window and door openings cut out properly and straight. (check to make sure that the window openings are cut to proper window rough opening dimensions.)
- Tyvek installed on entire building
- Nailing strips installed around window openings (NOT at door openings)

4. Recommended Staff/Crew Assignments

On the door and window installation day, the crew should be lead by at least one experienced crew leader. It is suggested that there be approximately 4-6 volunteers recruited for this task. One crew can install doors and another can be installing windows. Typically once the doors and window are in, the lock sets are installed on the doors.

5. Order/Tasks to be completed	*By Whom?*
____ 1. Set up ladders	All crews
____ 2. Install windows	1 crew
____ 3. Install doors	2 people
____ 4. Install door locksets & deadbolts	1 person
____ 5. Clean site, save any scrap materials	All crews

6. Tools/Equipment list

Tools & Equipment Needed at Each Site:

- Extension Ladder (16')
- Step Ladders (8')
- Step Ladders (6')

Tools Each Crew Leader Will Need:

- 25' Measuring Tape
- 4' Level
- 2' Level
- Framing Square
- Caulk gun
- Chisel(s)

Tools Each Crew Member Will Need:

- Hammer
- Nail Apron
- Retractable Utility Knife with Extra Blades
- Measuring Tape (16' Min.)
- Square (Speed or Combination)
- 2 Pencils
- Safety Glasses
- Work Gloves
- Ear Protection
- Hard Hats (if work is going on overhead)

7. Material List

- Vinyl windows
- 1-1/4" roofing nails
- Latex Caulking
- Silicone Caulking
- Front and side exterior pre-hung doors
- Shims
- 16d finish nails
- Locksets and deadbolt hardware

8. Quality Checkpoints

____ Windows installed and nailed level and plumb w/latex caulking behind nailing flanges

____ Doors installed so they don't bind nor swing open too easily

____ Locksets and deadbolts installed and strike plates mortised correctly

9. Construction Drawings and Text

NOTE: The following drawings, diagrams, and text are to be used on the job site when a question arises as to methods and procedures associated with the task. The notes on the drawings have been geared toward use as a quick reference. If a more in-depth explanation is needed, please read the text description. But most importantly, consult your Habitat Site Supervisor and Construction Manager for advice as needed.

1. Installing vinyl windows:

Have a crew bring the windows over to the site and unwrap them carefully and inspect for any damage before installation. With people both inside and outside, test fit the window in the opening (leave window closed and locked while installing it), making sure that it will fit level and plumb – outside, use a 2' level on head, sill and sides. Have shims available for the inside person to install if necessary on the sill. Remove the window, and put a bead of latex caulk on the back of the nailing flanges. Re-install, shim and nail on all 4 sides of the window, placing a roofing nail in each pre-punched hole in the nailing flange. Open and shut the window to make sure that it works properly as installed.

2. Installing exterior doors:

Door installation can be tricky. Make sure to have a crew leader who has done this job before doing the thinking. The door should be installed directly against the exterior wall sheathing. Make sure that there isn't any blue insulation board that will interfere with the placement of the door. Check the subfloor at the sill position to see if it is relatively level. Check the side studs to make sure that they are also pretty plumb.

Test fit the door with people on both sides of the door. Have the crew leader (or experienced help) on the inside to check the gap around the door to see that it is uniform. Start a few 16d galvanized finish nails in the exterior brick mold trim. Remove the door and put a large bead of silicone caulk on the subfloor where the aluminum sill will be. Re-install the door, tipping it into place into the caulk carefully. If the door looks pretty good, go ahead and put a couple of nails ¾ of the way in on each side of the doorway. Open the door to check that it doesn't bind nor open too easily on it's own. If it is good, continue to nail the exterior brick mold every 16" or so, checking the door as you go. Place shims between the jambs and studs at the top, bottom and in the middle of each side, being careful not to put too many in. Nail at each shim using 2 16d finish nails.

Install the locksets and deadbolts making sure that all strike plates and latches are mortised correctly.