

## TRIM

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## **Safety Talk**

### **Basic Construction Safety**

1. Drink plenty of water and watch for dehydration!
2. When you are tired - Rest!
3. Know where the First Aid Kit is - if you are hurt see your House Leader or Site Host immediately. Our Accident Procedure is in the Site Host book, please follow it.
4. Fill out an Incident Report any time the First Aid Kit is opened.
5. Keep a name tag on at all times.
6. Use Common Sense! Keep an eye on your own safety and the safety of others.
7. Concentrate -- especially if you are on a ladder or roof.
8. Watch for trip hazards wherever you are going.
9. Help keep the site safe by picking up and moving things that are in the way.
10. If you see something unsafe tell your House Leader or a Staff Member.
11. Hardhats are required to be worn at all times through the completion of drywall lids.
12. Either prescription or safety glasses should be worn at all times when creating dust.
13. Dust masks should be worn at all times when creating dust.
14. Please refrain from using ear buds on site, as they caused distraction and are a safety hazard.
15. Do not use cell phones or other electronic devices while working as they create safety hazards.

### **Lifting and Carrying**

1. Bend your knees and lift with your legs not your back.
2. If something is too heavy, get help - don't hesitate to ask!
3. Make sure you can see over what you are carrying.
4. When carrying something longer than 8 feet have a person on each end.

### **Ladders**

1. At the beginning of each day inspect all ladders for any structural defects that would make them unsafe. If any defects are found, mark the ladder(s) and set it aside for the Site Supervisor's disposition.
2. Use the right size ladder and place it on a solid footing
3. Never lean an A-frame ladder against anything, always use it fully opened.
4. Never stand on the top step or back side of a ladder.
5. Don't stretch/lean too far – always keep your belt buckle between the ladder uprights - take the time to move the ladder with your work!
6. Get someone to steady your ladder if needed.
7. Only one person on a ladder at a time.
8. The 4 to 1 rule: For every 4 feet of height, move extension ladders one foot away from the wall.

### **Power Tools**

1. Make sure you know how to use a power tool and don't disable safety features.
2. Wear safety glasses when using power saws and other power tools that create flying debris.
3. Make sure power cord is unplugged before performing any tool maintenance.

4. Take off gloves when working with saws.
5. Watch fingers near moving parts and tie back long hair.
6. Secure all loose clothing (shirt cuffs, nail pouches, etc.)
7. Watch the power cord when cutting and don't carry a power tool by its cord.
8. Get help when cutting large/long pieces of material.

### **Key Things to Remember**

- Verify door size and swing from your plans.
- Verify closet shelving installation for each closet.
- Baseboard Install flush with concrete slab.
- Cut an 8-degree bevel, in lieu of a 45-degree miter, at inside corners. Cut 45-degree bevels at outside corners.
- Caulk seams between dissimilar materials (i.e. between the finished sheetrock walls and the wood baseboard trim), and between casing and jambs. Always clean up excess caulk immediately, before it can harden.
- Spackle nail holes in trim, shelving, and shelf cleating and joints on door casing.
- The casing reveal should be uniform, use the edge of a carpenter's pencil (about 1/4").

### **Efficient Material Usage**

Baseboard:

- Use a full piece on long walls.
- Use cut scraps on short walls such as closets.

Cleating:

- CORRECT USE OF CLEATING IS CRITICAL!!!!
- Always use the correct width cleating in each closet.
- USE WIDE CLEATING ONLY WHERE THERE WILL BE CLOSET RODS.
- Use narrow cleating for all other shelving.
- You will not have enough if it is not used properly.
- Cut the long pieces first and then the short side pieces.

## Hinged Doors

### Exterior

Check your plans for proper swing on all doors. Do your prep work first:

- Verify trimmers reasonably plumb, the floor level, and opening the correct size.
- Clean off drywall edges as needed. Move doors, casing and tools to doorway area.

To install the door, have one person on the inside of the door and one on the outside.

1. Remove any duplex nails used to hold the doors in place for shipment. Remove the temporary wood strips nailed across bottom of door frame.
2. Temporarily nail the wood strips at an angle across the inside of the top corners of the rough door opening. Use these to ensure that the top of the door sits properly in the plane of the wall.
3. Caulk under the threshold.
4. Position the door next to the hinge side of the opening. Verify that the hinge-side jamb is high enough that the top reveal (the gap between the door and the jamb) can be adjusted by raising or lowering the strike-side jamb. If it isn't high enough raise and shim under the hinge side of the threshold as needed. Plumb with a 6' level and shim as needed. Near the upper hinge drive a 3" (gold) drywall screw through the jamb (and shims). Countersink all screw-holes before installing screws.
5. Recheck for plumb and then repeat near the center and bottom hinges.
6. Before securing the strike, side jamb adjust the reveal by viewing from the hinged side. Adjust the top jamb reveal by raising or lowering the strike side jamb as needed. Next adjust the strike side jamb reveal, using shims as needed.
7. Close the door and check for fit (gaps) between the door and the stop molding. If there are gaps, they can be adjusted by moving opposite corners of the frame in the same direction. Once the corner is moved (and the gap closed) the door will be plumb.
8. After double-checking all reveals, drive a 3" (gold) drywall screw through the above and below the deadbolt strike plate (Do not shim directly behind the strike plate). Next, place shims halfway between the strike plate shims and both the upper and lower shims. After double-checking all reveals, drive a 3" (gold) drywall screw through the strike-side jamb and shims.
9. Only if needed, install shims and one 3" (gold) drywall screw in the center of the top jamb to adjust the reveal.
10. Remove one standard hinge screw from the hole closest to the weather stripping in each hinge and replace it with one 3" (gold) drywall screw. This will further secure the jamb to the rough framing, which prevents future sagging of the door. If the screw is closer to the inside, it might miss the framing and only hit drywall.
11. Verify that all screw heads are sunken far enough to completely cover them with wood putty. If not, remove the offending screws, countersink them farther and re-install the screws before continuing.
12. Fill the void between the framed rough door opening and door jamb with wood fillers (scraps) to provide more solid anchor points for the security door. An alternate method for installing exterior doors is to use three 2" or 2-1/2" trim nails instead of each of the gold screws (except in the hinges).
13. Use a pneumatic trim nailer (with 2" or 2-1/2" nails) to install casing on the inside of the door with a 1/4" reveal. Nail every 12" near the outside of the casing with the 2 or 2-1/2" nails into the wall. Verify that the nail guns are setting the nails properly (adjust if needed). If the nail head is sticking above the surface of the casing, have someone follow behind with a nail set to recess it properly. Switch to 1" to 1-1/2" nails to nail the inside edge of the casing to the jamb every 12". Be sure the nails are solidly into the wood and not protruding through the inside of the jamb.

Pull your miter joints tight by shooting a short trim nail through the thick edge of one piece of casing into the other piece at all corners. This will keep the joint tight.

14. Install rough sawn trim on the outside of the door. Leave 1/2" between the bottom of the trim and the concrete. Either use square cuts or do a miter joint. Nail every 12" on both sides of the trim with the 2" or 2-1/2" nails. Be sure the nails are solidly into the wood and not protruding through the inside of the jamb. Verify that the finish nail gun is setting the nails properly. If the nail head is sticking above the surface of the trim, have someone follow behind with a nail set to recess it properly.
15. Use a 5/8" spade bit to drill out the wood inside the deadbolt strike hole. This must be removed for the deadbolt to throw completely through the jamb.
16. Install the deadbolt and knob. Use two 3" (gold) drywall screws to install a large 3" strike plate for the deadbolt instead of the standard size strike plate supplied with the lockset.

## Interior

Check your plans for proper swing on all doors. In general, all doors swing into the room except for small closets. Master closet doors usually swing into the closet, not the bedroom.

Do your prep work first:

- Verify trimmers reasonably plumb, the floor level, and opening the correct size.
- Clean off drywall edges as needed.

Move doors, casing and tools to doorway area.

1. Remove any temporary wood strips nailed across bottom of door frame.
2. Door is nailed to frame for shipping. Remove these duplex nails.
3. Position the door next to the hinged side of the opening and plumb with a 6' level. Check the strike side top corner. Is it tight or is there a gap? Tight is OK, but if there is a gap lift the hinged side to close it.

Safety First: Be sure no one is in the line of fire on the opposite side of the door before using the trim nailer.

4. Using 2" or 2 1/2" nails in the trim nailer, put nails through the thick edge of the casing at the top of the upper and middle hinges. Also put a nail at the bottom of each of those hinges. If the door looks straight, proceed, if not pull the nails and try again. Verify that the nail guns are setting the nails properly (adjust if needed). If the nail head is sticking above the surface of the casing, have someone follow behind with a nail set to recess it properly. Be sure the nails actually hit wood framing and not the gap between the jamb and trimmer.
5. Look at the bottom corner of the hinge side of the door. Is the door rubbing the jamb? If yes, nail the very bottom of the casing, pry out the jamb at the bottom of the hinge until the reveal opens, and then nail the casing at the bottom hinge. If the door isn't rubbing, nail off the casing at both hinge and bottom locations.
6. Adjust the top jamb reveal by moving the strike side jamb up or down as needed. Nail the top casing every 12".
7. Starting at the top of the strike side, adjust the reveal as needed and nail down the casing to the wall at 12" O.C.
8. Close the door and check for fit (gaps) between the door and the stop molding. If there are gaps they can be adjusted by moving opposite corners of the frame in the same direction. Once the corner is moved (and the gap closed) put two new nails into the jamb to hold it in place. This adjustment has brought the door into plumb. As needed, move and nail off remaining corners.
9. Before installing casing on the opposite side of the door, verify all reveals are correct. Use a 1/4" reveal on all casing. Nail every 12" on the outside of the casing with the 2 or 2-1/2" nails.

Switch to 1" or 1- 1/2" nails to nail the inside edge of the casing to the jamb every 12". Be sure the nails are solidly into the wood and not protruding through the inside of the jamb.

10. Verify that the open side of the top jamb is level, and then attach the top casing to the wall using long trim nails. Repeat this procedure for both vertical (leg) casings. Pull your miter joints tight by shooting a short trim nail through the thick edge of one piece of casing into the other piece at all corners. This will keep the joint tight. Nail all three casings to the jamb with the short trim nails at 12" O.C.
11. Nail off jamb with one nail on each side of the stop molding at 12" O.C.



#### Final check:

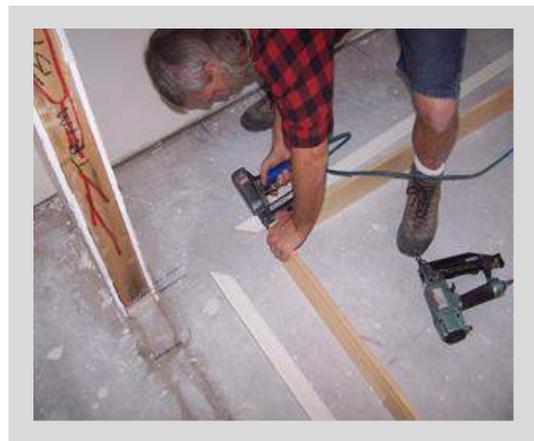
Close the door with light finger pressure and check for minor gaps along the strike-side stop molding. If there are any gaps make adjustments using a wood block and hammer. Use a short trim nail any place that you moved the stop. The stop molding on the top jamb should be tight to the door on the strike side and should angle away to provide a 3/16" gap on the hinge side. Adjust as needed following the same procedure used on the strike-side stop. Verify that the stop has the 3/16" gap along the entire hinged side, and adjust if needed. This gap prevents binding when the door is closed. This installation is complete.

### Closet Doors

#### Bypass Doors

Do your prep work first:

1. Verify trimmers reasonably plumb, the floor level, and the opening the correct size.
2. Clean off drywall edges as needed. Move doors, casing and tools to doorway area.
3. All closet doors are to be installed using wood jamb and casing materials.
4. Shim all jamb material as needed to ensure that it is level, straight and square before attaching the casing in the same way as for hinged doors.
5. An alternate method that often gives better results more easily is to assemble the jamb and one set of casing (essentially a pre-hung case) while it is lying on the floor.
6. The formula for figuring out the material sizes is as follows:  
**The top jamb = 2x door width + 2x jamb thickness minus 1- 1/2".**  
**The side jamb = door height + 1-1/4" (for rail and bracket depth) + either 1" (for tile) or 1-1/2" (for carpet).**



7. Once you have determined the jamb lengths, verify that they will fit in the opening, and then cut to length.
8. Nail the top jamb on top of the side jambs with 1 ½" trim nails. Allowing for a ¼" reveal, cut and install your casing using 1" trim nails.
9. Stand the assembly in place and plumb the left side. Shoot a 2" trim nail into the wall through the thick edge of that casing. Using the level to verify that everything remains plumb and is straight, nail your way down to the floor at 12" O.C.
10. Level the top casing and shoot a long nail into the wall at the right end. Using the level to verify that everything remains level and is straight, nail your way across the top casing at 12" O.C.
11. Measure the opening at the top and make the opening at the bottom exactly the same, shoot a nail through the casing at the bottom. Using the level to verify that everything remains straight, nail your way up the casing at 12" O.C.
12. Install the interior casing to the jambs with 1" trim nails at 12" O.C. Then repeat the process of nailing the casing to the wall (with 2" trim nails) using the level to verify that everything remains plumb or level, and straight. Do the top casing first and then the sides.
13. Pull your miter joints tight by shooting a short trim nail through the thick edge of one piece of casing into the other piece at all corners. This will keep the joint tight.
14. The trim work is complete.



Install the track in middle of the header. Use ALL screws provided for the track.

All closets should have the front door closest to the entrance of the room, and the back door away from the entrance. Then, when entering the room, the gap between the doors where they overlap will not be visible.



To ensure the doors are hung properly, you MUST locate the solid block provided at the edge on one side of door to mount inset door pull. These blocks must be on the outside edge of the doors when they are hung.

Use the 2 1/8" hole saw (from your House Leader's small tool kit) to install the door pulls. Install the pulls at the same height as knobs on the hinged doors. The center of

the hole for the pulls should be 2-½" in from the edge of the door. This will avoid cutting through the door stile. Use a chisel as needed to clean out the opening.

Once the door pulls have been installed mount the rollers to the back side of each door. Make sure the roller assemblies are installed so that, they will be adjustable and that if you have A and B pairs that they are on the same doors. The pair with the larger offset is for the rear door of the pair. As needed, adjust the doors to make the door edges parallel to the sides of the closet opening.

**DO NOT INSTALL THE DOOR GUIDE IF THERE WILL BE VINYL INSTEAD OF CARPET.** Tape the guide and screws to the inside of the back door to prevent them from being lost.

For a carpeted room cut a piece of 1-1/2" cleating to the length of the door guide.

Where the two doors overlap in the center, liquid nail this piece of trim to the concrete, or nail it to a wood floor.

After carpet is installed the bottom bypass door guide will be installed on top of the piece of cleating with the screws provided.

### Cleating

if not properly blocked, use the stud marks on the floor or a stud finder to locate where to nail in cleats. Nails into drywall alone will not support the shelf.

Closet shelf supports cannot be more than 48" apart. Install 8" vertical cleats as needed for shelf brackets. Run the side cleating across the entire side wall (this will provide enough length for the rod support cups, without concern over where the studs are located), or to two feet if the wall is longer.



**USE THE WIDE CLEATING ONLY FOR SHELVES WITH RODS.**

**USE THE NARROW CLEATING FOR ALL OTHER SHELVING.**

Be sure all shelves and cleating are completely painted before installing the brackets, rods and cups. Nobody likes to clean paint off rods or brackets!

Install closet rods only in bedrooms and entry closets. Do not install a rod anywhere else. THE RODS DO NOT GET PAINTED.

### Closet Shelving

1. Pantry closets get 5 shelves. The bottom shelf is 18" from the floor and the next shelf is 18" above that. The next 3 shelves every 12" above that. Use a 12" deep shelf for the top one, making the other ones as deep as possible. Do not install the shelves until doors are installed and trim is completed on the inside of the doorway.
2. Linen closets get four shelves. Place them at 18", 36", 54" & 72" above the floor.

3. Laundry gets one shelf at 60".
4. Hallway closets get one shelf at 72".
5. Use 12" deep shelf stock for the laundry room, and all bedroom and entry closets. Use deeper stock in pantry and linen closets where possible.
6. All Bedroom closets get two shelves, one at 40" and one at 80". In all non-walk-in closets, the lower shelf stops short of the right-hand wall. The bracket to support that end must line up with a stud and should be between 12" and 24" from the side wall. Walk-in closets vary by plan, please consult your drawings for details.
7. Do not install shelving before the walls have been painted.
8. Paint the shelves before installation.
9. A nice added detail:



Round off the floating corners of the lower shelf using a coffee can to create the radius. Cut it with a jig saw and clean up with a belt sander. Just remember to extend the shelf enough for the shelf bracket to clear the round off.

### Sealing Air Gaps

Be sure to use caulk to seal all drywall penetrations before HVAC, plumbing and electrical trim are done. This means seal all gaps around AC ducts, electrical boxes, exhaust fans, pipes, etc.

### Baseboards

Measurements should be exactly the length of the wall. Take into account if the measurement is to an inside or outside corner.

Use one straight cut and an 8-degree angle, in lieu of a 45-degree miter, at inside corners.

Use a 45-degree miter on both pieces of outside corners.

Be sure to not nail into areas where nail plates are as nails have penetrated the plates in the past.

Because there are so many plumbing lines in the wall behind the toilets, that piece of baseboard is to be glued in place with construction adhesive and nailed only once at each end.

Do NOT install baseboard behind the range.

Install flush with concrete slab in all areas, except at the sloping garage floor. Always install the baseboard over and nail into the bottom plate in the garage.

Use a pneumatic trim nailer (with 2" or 2-1/2" nails) to install baseboard with nails driven into the base plate at 12" O.C. Verify that the finish nail guns are setting the nails properly (adjust if needed).



If the nail head is sticking above the surface of the baseboard, have someone follow behind with a nail set to recess it properly.

For a more finished look where trim ends other than at a corner, cap the end with a mitered return.

### Scuttle Hole

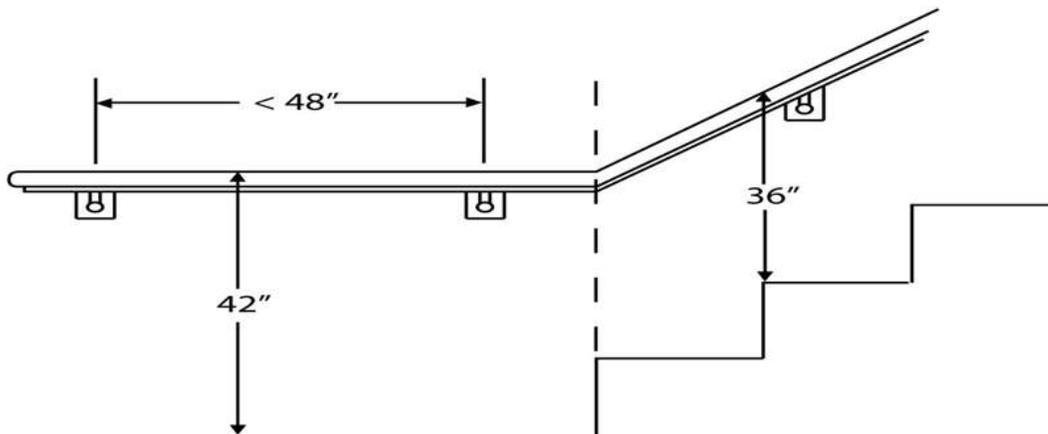
Per the code there is to be NO WOOD TRIM around the scuttle hole.



### Stairs

The handrail height should be 36" at the rake and 42" on the flat. By code the rail must run continuously from directly above the lowest riser to directly above the highest riser and is required on one side of the stairway. Be sure to extend each end 6" beyond the minimum.

Support brackets cannot be more than 48" apart. Determine the location of each bracket based on the required height minus the rail thickness and the height of the bracket.



Install the brackets to the studs using at least a 2-1/2" "gold" drywall screw and then install the railings using the screws provided. There must be a return (the rail turned perpendicularly into the wall) at each end of all rail runs. Make sure that all joints in the railings are securely connected.

## Caulk & Spackle

It cannot be emphasized enough that well-done caulk and spackle are the most important finishing aspects in the house. All leaders must strive to supervise all volunteers to provide a superior result.

**THE NUMBER ONE** RULE IS TO USE CAULK ON THE SEAMS AND SPACKLE ON THE NAIL HOLES. Caulk will shrink and leave depressions when used in the nail holes.

**The number two** rule is ALL EXCESS Caulk **MUST** be wiped clean with a damp sponge at the time it is put in place.

Caulk smeared anywhere will dry visibly smeared, hard and rubbery. Once dried, caulk can only be removed with great difficulty (it must be sanded clean).

Spackle wipes off smoothly, with only a finger. Excess spackle can be easily wiped off, even when dry with a damp sponge (if it has not been painted).

**The number three** rule is DON'T PUT CAULK IN THE WEATHERSTRIP GAP ON EXTERIOR DOORS! Tape over the gap to protect it, and every day that you are finishing, explain this to all volunteers present – especially the late comers!

Spackle all nail holes in baseboard, shelving, shelf cleating, and miter joints on door casing, then wipe smooth.

### How to Caulk

1. Cut as small of a hole as possible angled across the tip of the caulk tube. It is far easier to put more caulk on than to take too much off.
2. Run a bead of caulk only part of the distance needed.
3. Use your finger to smooth out the caulk along the seam.
4. Use the excess caulk on your fingers to fill in the next section.
5. Follow up with a damp sponge to wipe the edges clean.
6. Rinse the sponge (and your hands!) often as you work.
7. Caulk all seams around doors (except the miter joint between 2 pieces of casing where you should use spackle).
8. Don't forget the seam between the casing and walls.



### Where to Caulk

1. Caulk all seams between baseboard and drywall
2. Caulk all gaps between window frames and drywall.
3. Caulk all inside corner joints at walls and ceilings.
4. Caulk only the edges of all bathtub surrounds (as needed), not internal joints.
5. Caulk all shelving between the wall and top of the shelf on three sides.
6. Caulk the bottom of the shelf to the cleating on any visible upper shelves.
7. Caulk between the bottom of the cleating and the wall on any visible cleating.

8. Caulk between the wall and the countertop back and side splashes. Make sure the splashes are clean before you caulk them.
9. For air barrier purposes, all wall penetrations (electrical boxes, vents, etc.) must be sealed with caulk.