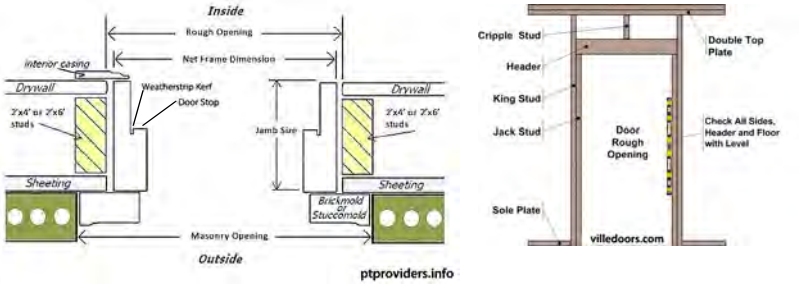
7.7 Door Replacement

SWS Detail: 3.0202.2 Door Replacement

Sometimes you can replace an exterior door for less labor compared to repair and readjustment. The labor just to replace the threshold on an existing pre-hung door is itself very challenging.

Install flashing around doorways according to the specifications in *"Installing Replacement Windows" on page 242*.

You can replace an exterior door, as an efficiency measure, if you can justify the cost under program rules. Use RRP methods to ensure occupants and workers aren't exposed to lead dust during door replacement. *See "Lead-Safe Procedures" on page 48.*



Door anatomy: The door and its frame fit into a rough opening. The door jamb matches the wall thickness and attaches to casing on the interior and exterior of the wall.

7.7.1 Replacement-Door Standards

Observe the following standards when replacing exterior doors.

- ✓ Select an exterior-grade insulated door-blank or a pre-hung insulated door, preferably without glazing.
- ✓ When possible, pre-hung door jambs should match wall thickness. The most common jamb sizes are $4\,{}^{9}/_{16}$ inches for 2x4 framing and $6\,{}^{9}/_{16}$ inches for 2x6 framing.
- ✓ Choose a foam-insulated door with a U-factor of less than 0.17 (R-value of 6 or greater).
- ✓ Size the door assembly, including the door frame and threshold to be 1½–2 inches narrower and at least ¾ inch shorter than the rough opening.
- ✓ The replacement door must have three hinges and a threshold.
- ✓ If your selected door has glazing, specify an appropriate U-factor and solar heat-gain coefficient appropriate for the climate.

✓ Use sealants compatible with fire-rated assemblies to seal door casing, jambs, and thresholds when you replace fire-rated doors in fire-rated assemblies.

7.7.2 Replacement-Door Installation

Follow these steps to install a pre-hung replacement door.

1. Remove the existing door casing, the door, and its frame.
2. Remove the old threshold and check the floor underneath the door for level. Check the rough opening for square with a framing square or by measuring the diagonals.
3. Level the floor across the door width and make sure it aligns with the nearby floor.
4. Make sure that the door clears the existing floor with extra room for a foot-wiping rug, if appropriate. This may require the floor, directly under the threshold, to be a little higher than the existing interior floor.
5. Prepare the door's rough opening thoroughly to create a continuous air barrier and water barrier using the air sealing and water sealing procedures specified in *"Window Replacement Specifications" on page 240*.
6. If the door frame has no exterior casing, fasten two pieces of 1-inch lumber 4 inches longer than the frame is wide horizontally to the door jambs across the new door frame. These are temporary braces to hold the door flush with the interior or exterior finish wall material while you fasten the door to the jambs.
7. Install a bead or caulk on the floor where the exterior edge of the threshold sits.
8. Place the door in the opening, and level the hinge side using three sets of 2 opposing wedges behind each hinge.

9. Drive one or more long screws through the top hinge, jamb, and wedges into the framing lumber. Then fasten through the hinge-side jamb and wedges near the other two hinges.

10. Check the frame for square with a framing square or by measuring the door frame's diagonals. Move the frame slightly if necessary to make it square.

11. Install wedges and screws at the strike plate and then at the top and bottom of the lock side of the door frame.

12. Read the directions and adjust the new threshold for proper fit against the new door's weatherstripped bottom.

13. Install interior casing and exterior casing if the door didn't come equipped with casing.