

Veneer masonry is a popular choice for home building and remodeling, because it gives the appearance of a solid brick or stone wall while providing better economy and insulation. It can be used as an addition to conventional wood frame structures, and can be placed on concrete block walls. Depending on personal preference, it may cover an entire wall from foundation to roof, or it can stop at windowsill level.

### **Required Tools & Materials**

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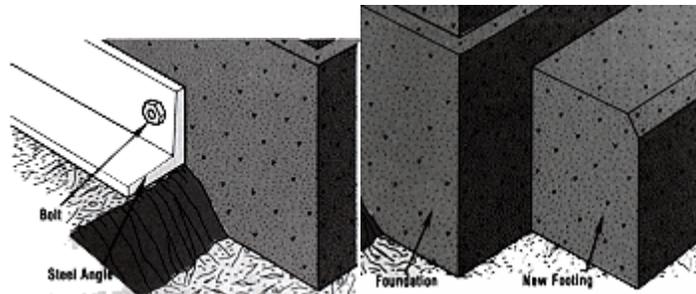
- QUIKRETE® Mortar Mix or Mason Mix
- Brick or stones
- Gravel or crushed stone
- Reinforcing rebar
- Forming lumber and stakes (optional, needed only if making new forms)
- Flashing
- Sheathing
- Galvanized metal wall ties
- Masonry nails or stud gun
- Rubber hose
- Story pole
- Steel angle (optional)
- Pickax
- Square-faced shovel
- Trowel
- Tamper
- Saw
- Wooden wedges
- Screed
- Level

### **Step by Step**

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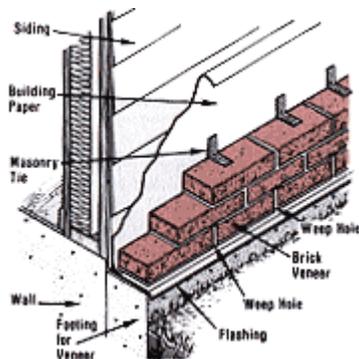
#### **Preparing the Foundation**

If the footing of the house extends out 6" or more, the veneer can rest directly on top of it. If the footing is less than 6", it must be "extended" before the veneer can be placed on it. To "extend" the footing, either bolt a corrosion-resistant steel angle to the existing foundation or pour a new footing next to the foundation. If you are making a new footing, pour a few inches above ground level, then start the veneer at that point. The veneer must always be tied to the old foundation; to ensure a good bond, wash the old foundation surface, and coat it with QUIKRETE® Mortar Mix or Mason Mix.



## Laying a Brick Veneer Wall

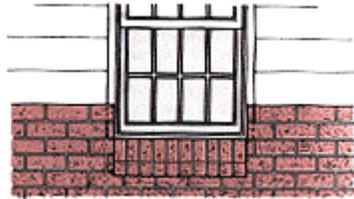
1. Install flashing over the footing to prevent water from seeping behind the veneer. Copper, aluminum, lead, or roofing paper may be used for this. Spread a  $\frac{1}{2}$ " bed of mortar on top of the footing, then push the flashing down firmly into it. (It is a good idea to install flashing at the heads and sills of doors and windows as well.)
2. Cover the existing siding with a good sheathing material, such as tarpaper. Always leave a 1" air space between the sheathing and the veneer.
3. To lay the first course of bricks, use a trowel to spread a 1" - thick bed of mortar on top of the flashing. Tap each brick into place with a trowel handle; never pull on a brick, because this can break the bond. Make sure that all the bricks are plumb and level.
4. To hold a veneer in place, nail galvanized metal wall ties through the wall siding into the studs. Space the ties every 32" horizontally and every 16" vertically, and offset the rows so that ties do not line up.



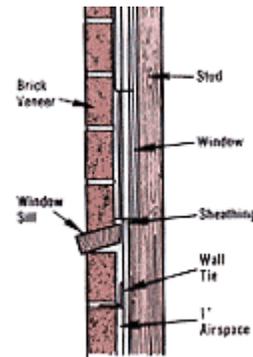
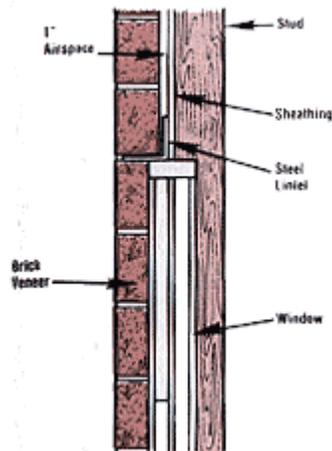
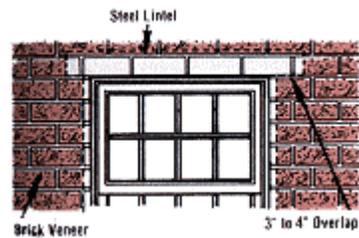
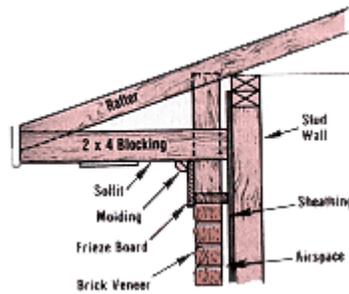
5. Make weep holes, approximately 24" on center, in the vertical joints of the first course of bricks. To form the weep holes, use short lengths of rubber hose, which can be easily removed after the mortar has set. The weep holes will act as a drainage system to allow any water that may seep in around the flashing to escape.
6. Continue laying each course of bricks, being careful to maintain the precise mortar joint thickness needed to obtain the desired wall

height. A story pole may be helpful for accuracy.

7. When you reach a windowsill, lay the bricks on edge in "rowlock" fashion as shown in the illustration. The bricks should also be installed on a slant in the direction of the rainfall. For bricks being laid above the windows and doors, a steel lintel must be used as a base. The lintel is set onto the course, even with the head of the window or door; it must overlap the bricks by 3" to 4" on both sides of the window or door.



8. If the veneer is being carried all the way to the roof, it must meet the corner. The frieze board on the cornice should overlap the top course of bricks by at least 1/2". Use 2 x 4 blocking to provide a sound nailing surface for the frieze board.

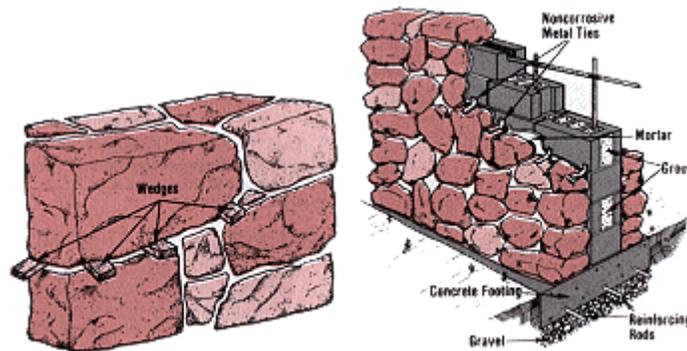


## Step by Step

### Laying a Stone Veneer Wall

When laying stone veneer on a concrete block wall, the procedure is very similar to the laying of a brick veneer wall:

1. With the masonry nails or stud gun, attach wall ties to the wall every 2 or 3 square feet. (If the concrete block wall is being built from scratch, insert the ties in the mortar joints between blocks.)
2. Attach the stones to each other to the wall with mortar. Lay a 1" mortar bed on the footer, and then begin setting the first course of stones; unless you are using a high grade of dressed stone, you will also be setting small stones or gravel in mortar to fill the irregular, open spaces where the large stones do not meet. For each new course, build up a mortar bed and set the stones in place, checking the alignment as you go. Bend as many of the ties as possible into the joints between the stones.
3. Because very large stones can squeeze out all the mortar in their joints, support them temporarily with wooden wedges. When the mortar has set, pull out the wedges and fill the holes with mortar.



4. When a section has been laid, use a piece of wood to rake out the joints to a depth of  $\frac{1}{2}$ " to  $\frac{3}{4}$ ". This will enhance the play of light and shadow on the face of the wall.