

Tying Into Block

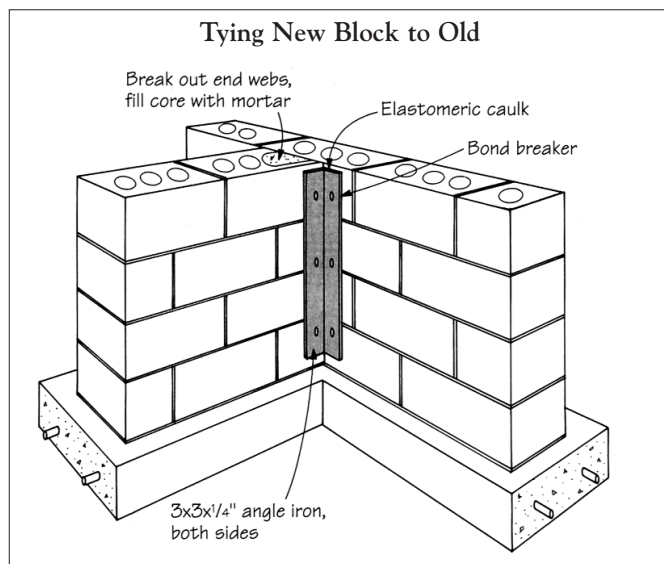
by Henry Spies

Q. What is the best way to tie a new block addition into an existing block building?

A. Dowel the new footing to the original building with at least two #4 rebars. You'll need to dig to the bottom of the existing footing, drill it horizontally, and grout in rebars that extend about a foot into the new footing. The new footing should be at the same depth as the existing footing and on undisturbed soil.

At the wall connection,

vertically fasten a 3x3x1/4-inch angle to the original wall with expansion anchors (see illustration below). Provide a bond breaker on each leg of the angle, and break out the end webs of the new blocks. Then, pack the cores with mortar around the angle, and seal the joint between the new blocks and the old wall with a good elastomeric caulk. This will provide lateral support to the wall, but will allow some minor vertical movement without cracking.



Secure block wall intersections with a vertical angle iron, as shown.

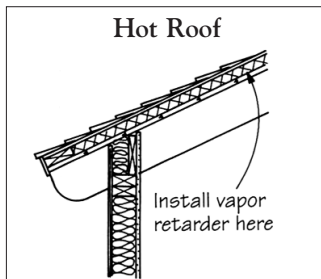
Hot Roof Problems

Q. We have been asked to bid on a home in upstate New York that has a "hot roof." Are moisture problems likely in this unvented roof assembly?

A. Moisture problems and heat buildup are possible in this

construction. While polyisocyanurate or extruded polystyrene insulation is essentially a vapor retarder, moisture migrating with air through the cracks in the insulation might pose a problem. To prevent the possibility of moisture moving into the roof assembly, install a polyethylene vapor retarder over the ceiling decking and under the insulation as shown in the illustration at left. This will serve as both a vapor retarder and an air barrier.

In addition to potential moisture problems, this type of roof has no ventilation to cool the back of the sheathing. As a result, the surface temperature of the roof could get very high, which might reduce the life of the shingles.



Moisture problems are likely in this roof assembly unless the interior vapor/air barrier is flawless. Also, because the roof is unventilated, there is a danger of heat buildup, which will reduce shingle life.

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