

Masonry chimneys can be a source for problems such as leaking, efflorescence, and spalling if proper construction details have not been utilized. The following guidelines include information a homeowner or builder can use to correct and repair common chimney problems.

A poor cap is probably the most common source of chimney problems. The cap should be closely inspected for cracks or other sources of water leakage. The best chimney cap is a poured concrete cap with a 1 ½” overhang and a drip notch. The detail for this type of cap is indicated in “Recommended Details Essential to Durable Brick Homes”. These printed details are included on the package card attached to every cube of brick delivered to the site. A metal cap can also provide very effective weather protection and can be more economical than a concrete cap when used as a repair.

Corbel details can also be a potential source of water penetration. Corbels can act as ledges which allow water to accumulate and eventually work its way into the masonry. If the corbel details have exposed core holes the problem is further aggravated. A simple mortar bevel applied to the corbel can help eliminate this problem. For this repair Type S mortar is recommended.

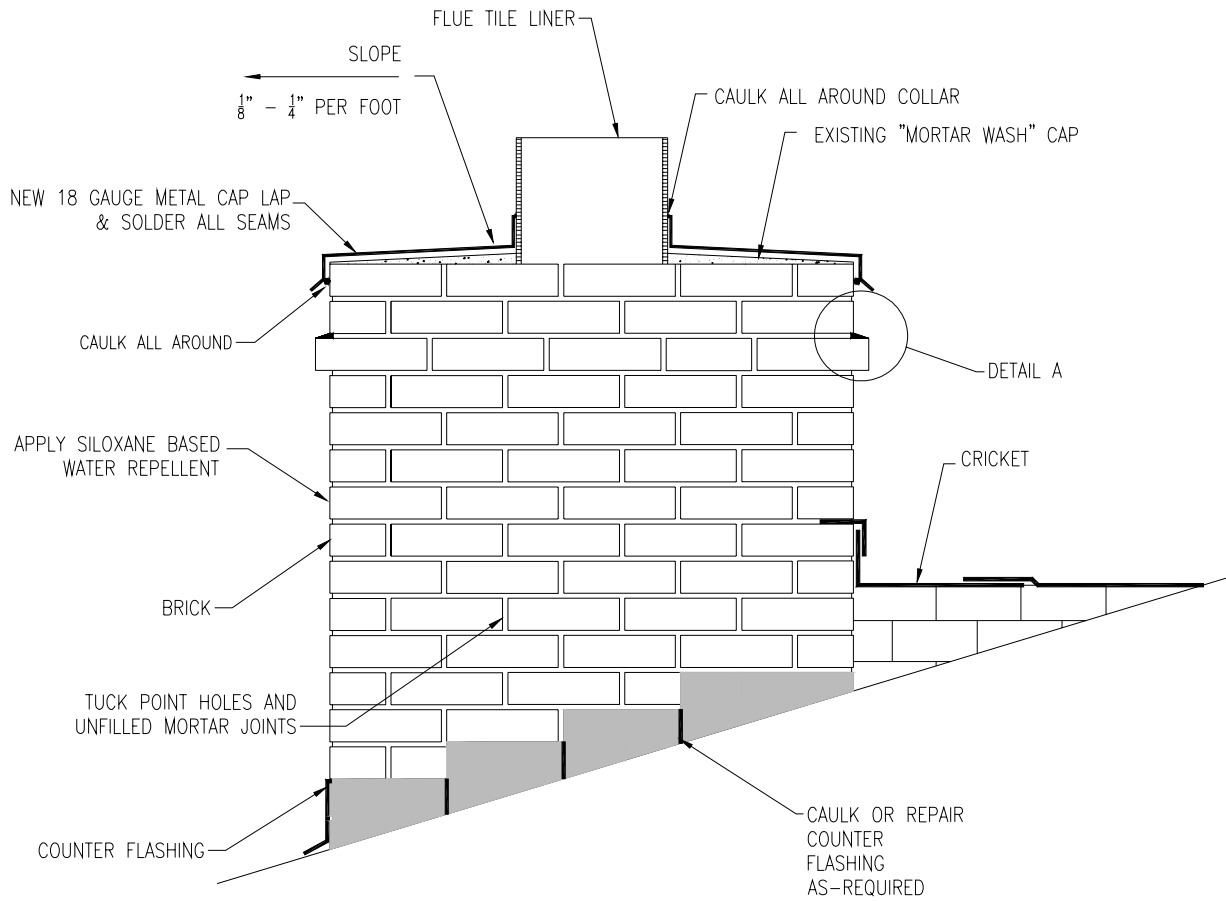
Roofing counter flashing should be inspected for possible sources of leakage and caulked or repaired as required.

The chimney should also be inspected for unfilled mortar joints. Any holes or partially filled joints should be properly tuck pointed.

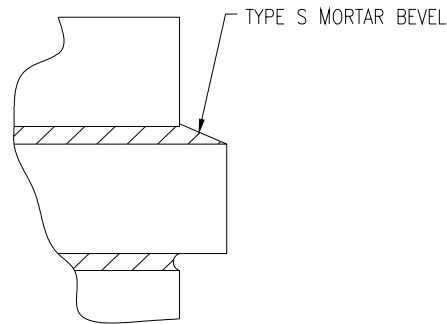
A chimney cricket should be installed as required by section 1001.16 of the CABO One and Two Family Dwelling Code. The CABO Code requires a cricket when the chimney dimension parallel to the ridge line is greater than 30 inches and the chimney does not intersect the ridge line.

The application of a water repellent can also provide additional protection from leakage. If a water repellent is applied it is important that only a breathable Siloxane based material be used. One such product is Weather Seal Siloxane by ProSoCo, Inc. Acrylic sealers should not be used for any type of exterior application. Any repairs such as tuck pointing, corbel bevels, or chimney cap repairs must be completed before a water repellent is applied. To allow for maximum penetration the masonry must be completely dry before a water repellent is applied. All manufacturers should be closely followed. For additional information on water repellents you can contact ProSoCo, at 1-800-255-4255.

The following detail illustrates some of the repairs discussed above. If you have questions or require additional information contact the General Shale Engineering Department at (423) 282-4661.



MASONRY CHIMNEY ELEVATION



DETAIL A

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MASONRY CHIMNEY REPAIRS
 RECOMMENDED DETAILS ESSENTIAL TO DURABLE
 HOME CONSTRUCTION