

Flashing Installation: Masonry Veneer

Scope

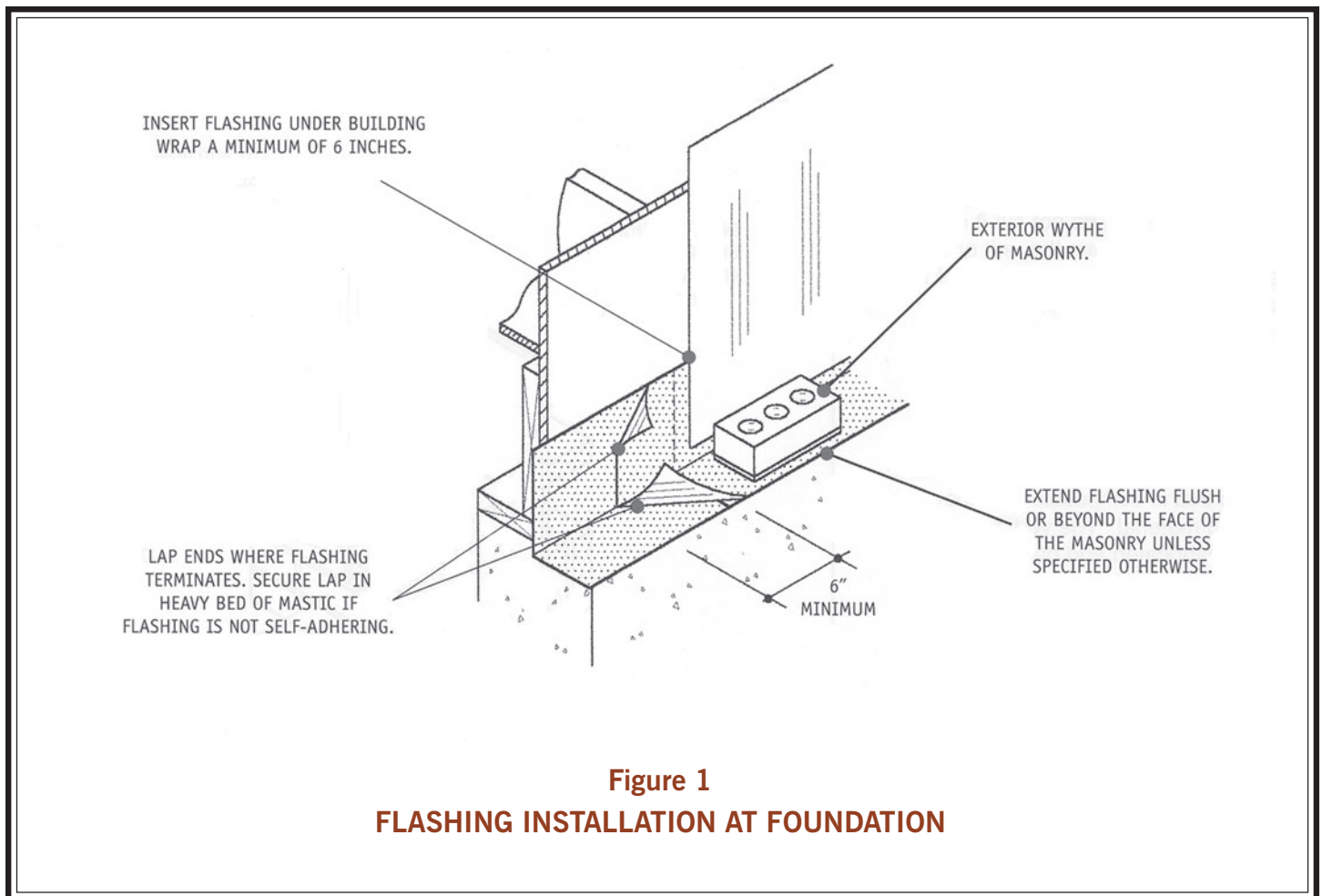
This brief presents general information on the installation of flashing. It's intent is to provide instructional information on how to successfully install flashing for typical conditions encountered in masonry veneer on frame construction. This guide does not preclude flashing details presented on the architectural documents. This guide addresses the installation of flexible flashing membranes since this type of membrane is most commonly utilized in masonry veneer on frame construction.

Introduction

Many water penetration problems in veneer walls can be traced back to flashing inadequacies. Flashing installation for masonry veneer construction is very similar to flashing installation for cavity walls, and is just as important. The critical locations are the same: inner and outer corners, horizontal laps, and flashing end terminations. However, there are some differences that must be addressed to ensure the flashing functions as intended.

Flashing Installation at Base of Wall

Water penetration in masonry veneer construction can occur at the base of the wall. Ideally, flashing should be installed continuously along the base of the wall. This would eliminate the need to lap the flashing. However, this is rarely possible, so laps must be made. Flashing should be lapped a minimum of 6 inches. If the flashing is not self-adhering, the lap must be sealed with a mastic or adhesive compatible with the flashing material.



Manufacturers of flashing materials should recommend an appropriate adhesive. If the flashing is dry-lapped without an adhesive, water that collects on the flashing can flow between the lap and into the building.

The flashing needs to run vertically up the backup so that the building wrap can overlap it a minimum of 6 inches. If the vertical leg of the flashing is left exposed, water could easily flow behind the flashing. Extend the horizontal leg of the flashing flush with or beyond the face of the masonry unless specified otherwise. Flashing that is terminated within the wall can result in water flowing underneath the flashing into the building, or into the core holes of the masonry unit.

Flashing Above Openings

Flashing should be installed above all openings. Flashing that is installed above a window or door usually terminates at both ends to prevent water that has collected on the flashing from flowing into the cores of the unit or into the window or door jamb. One way to terminate the flashing is to extend it beyond the opening and turn up the ends to form a pan or end dam (see Figure 2).

Extending the flashing beyond the opening in increments of 4 inches assures that the flashing can be neatly inserted into a head joint. Trim the flashing in the head joint short of the exterior face so that it is not visually unacceptable, but do not cut it so short that water penetrates the unit or wall (see Figure 2). The vertical end of the flashing should be lapped under the building wrap a minimum of 6 inches.

An alternative to turning up the horizontal end of the flashing is to install prefabricated end dams beyond the opening. If a prefabricated end dam is not self-adhering, it must be fully set in mastic that is compatible with the flashing material. The vertical end of the prefabricated end dam must be inserted beneath the building wrap. This can be accomplished by creating a small cut in the building wrap and inserting the vertical leg of the end dam beneath it (see Figure 3). End dams are commonly required below window openings and can be installed in a similar manner.

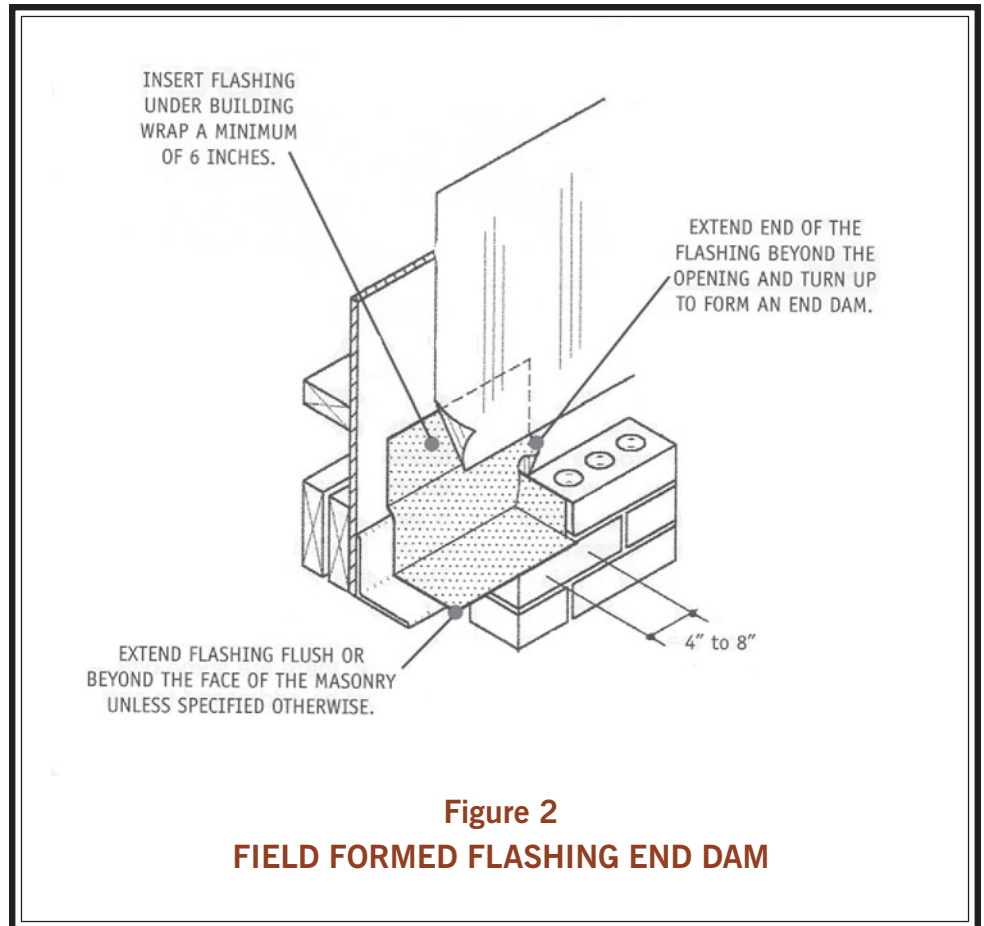


Figure 2
FIELD FORMED FLASHING END DAM

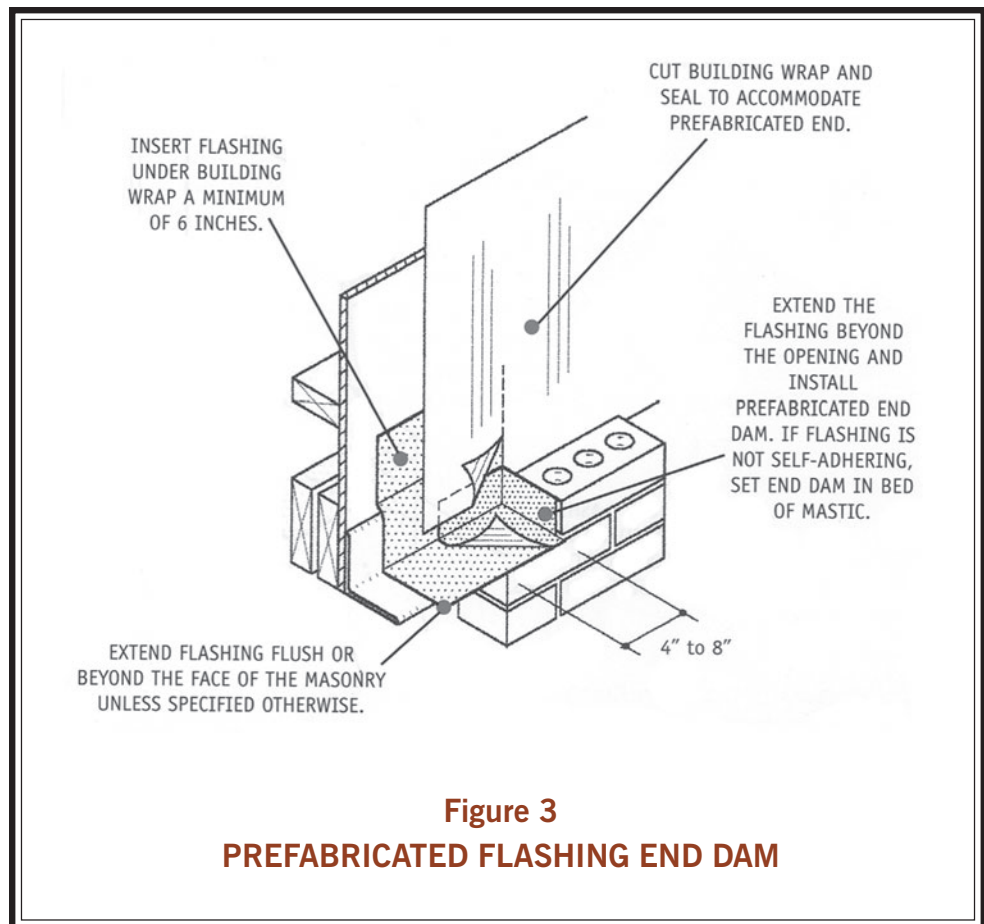


Figure 3
PREFABRICATED FLASHING END DAM

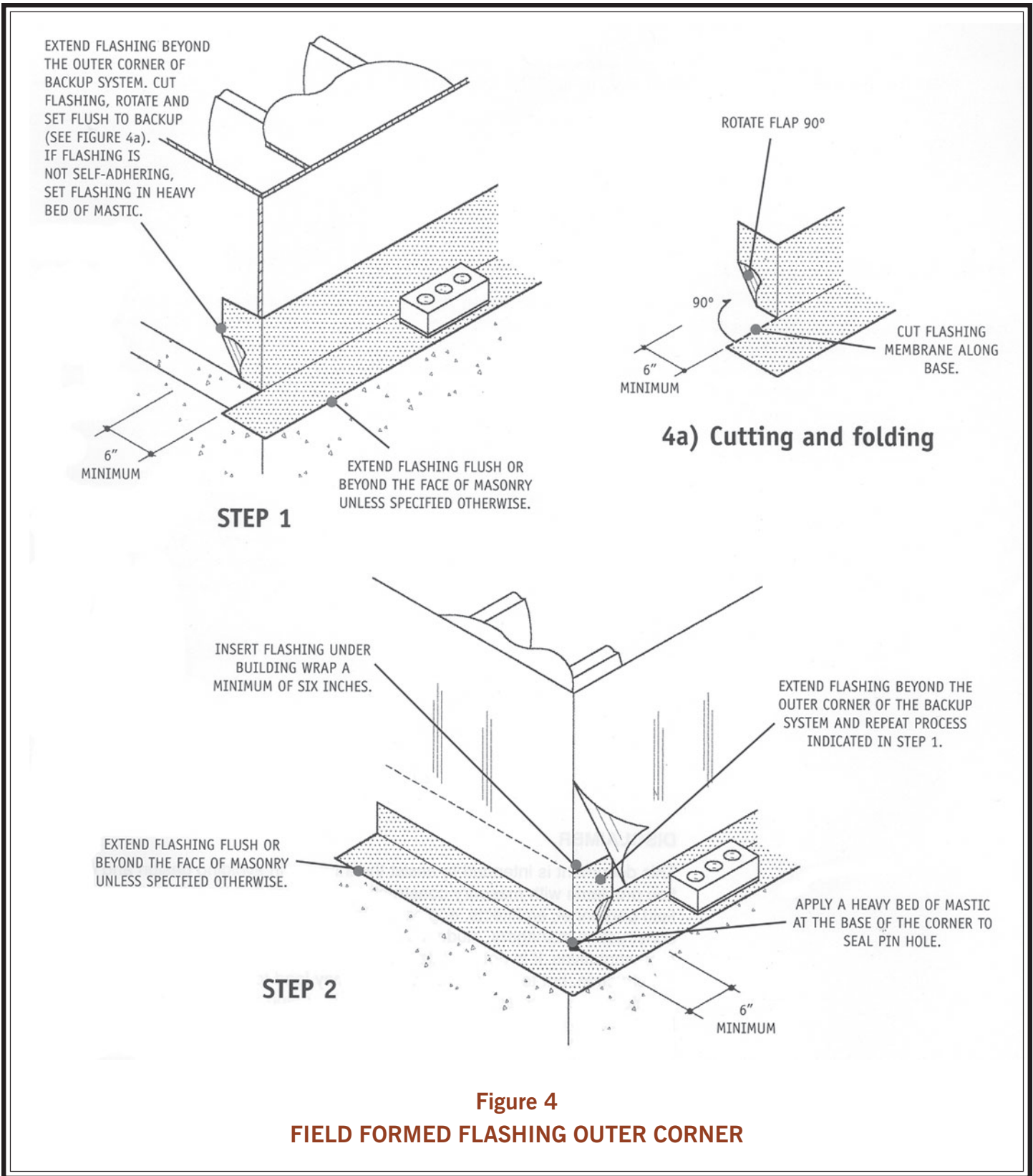


Figure 4
FIELD FORMED FLASHING OUTER CORNER

Flashing Installation at Outer Corners

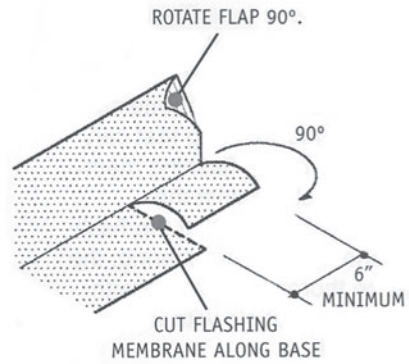
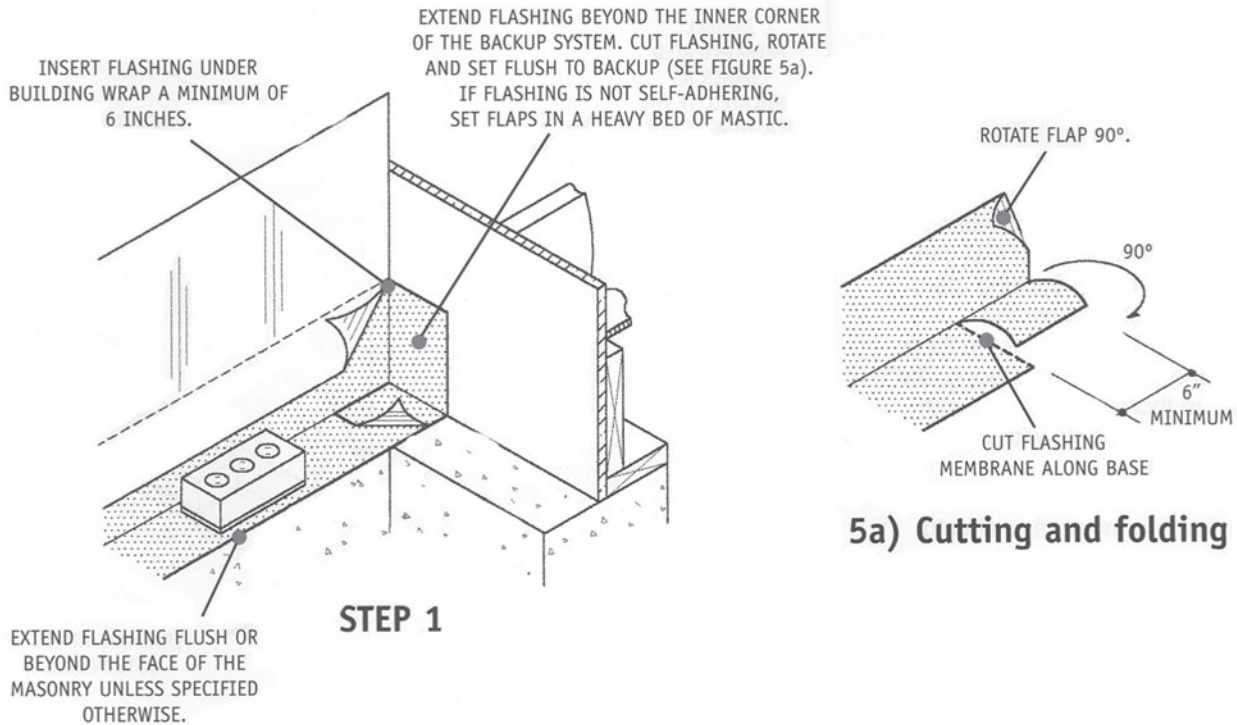
Flashing continuity must be maintained around corners because they are more susceptible to water penetration than other areas of the wall.

Flashing installation at outer corners

is tedious and requires additional time and care by the mason. Flashing outer corners is a two-step process (see Figure 4). First, the flashing must be extended 6 or 8 inches beyond the interior corner of the backup. Then the flashing membrane should be cut along the horizontal plane. This will form a flap that

can be rotated 90° flush to the sheathing (see Figure 4a). If the flashing is not self-adhering, the flap must be set in mastic that is compatible with the flashing material.

The second step is similar to the first. The flashing should be extended beyond the interior corner backup, cut, and



5a) Cutting and folding

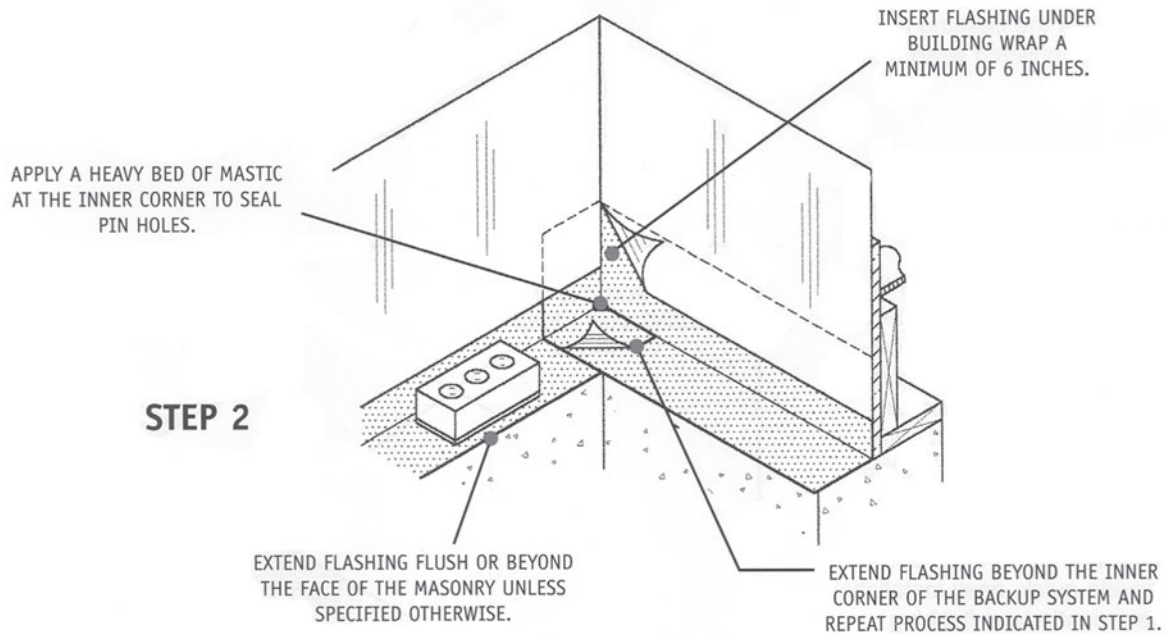


Figure 5
FIELD FORMED FLASHING INNER CORNER

lapped over the existing flashing. The flashing must be set flush to the sheathing and the top of the foundation to avoid any small openings in the laps, which may provide an avenue for water to enter the building. If self-adhering flashing is not used, all laps must be sealed with mastic. In addition, a heavy bead

of mastic must be applied at the base of the corner to seal a small opening that develops from the folding process. If self-adhering flashing is used, the opening can be sealed by cutting a piece of flashing and adhering it over the opening. Also, the vertical end of the flashing must be lapped under the

building wrap a minimum of 6 inches.

Flashing Installation at Inner Corners

Flashing continuity must also be maintained at inner corners which are also vulnerable to water penetration. The

proper flashing installation at inner corners is similar to flashing outer corners and can be just as time consuming.

Flashing installation at inner corners is a two-step process (see Figure 5). The flashing should be extended 6 to 8 inches beyond the inner corner of the backup and cut at the corner intersection. The cut will form a flap that can be rotated 90° over the flashing membrane and set flush against the sheathing (see Figure 5a). If the flashing membrane is not self-adhering, the flaps must be thoroughly sealed with mastic that is compatible with the flashing material.

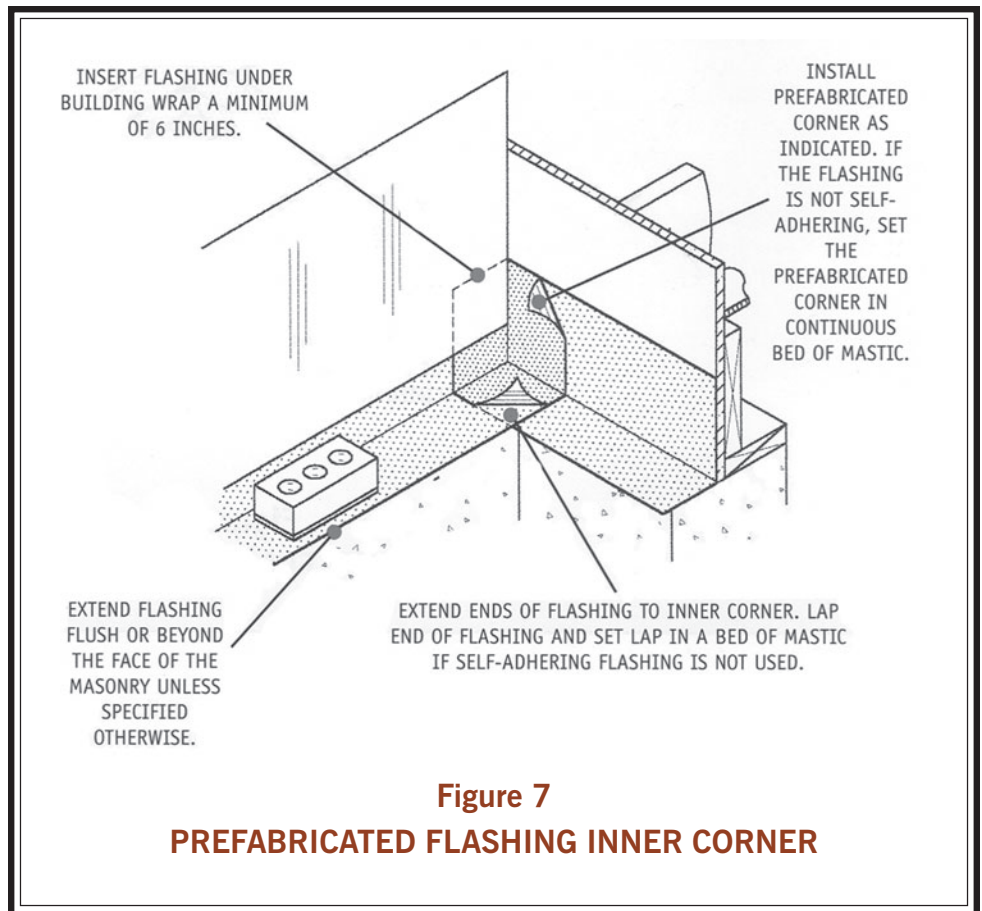
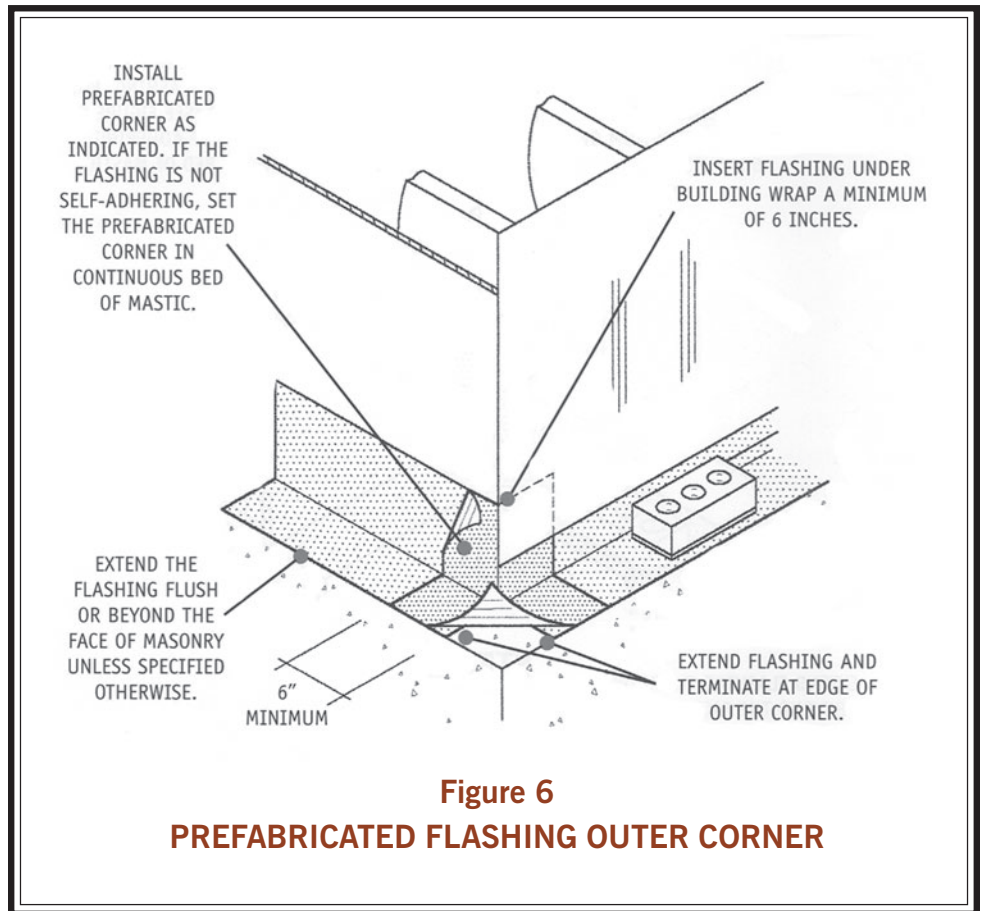
The second step is similar to the first. The flashing membrane should be extended beyond the interior corner of the backup, cut, and lapped in the same manner as step one. A heavy bead of mastic must be applied at the corner base to seal a small opening which develops from the folding process. If self-adhering flashing is used, no additional sealing is required. The vertical leg of the flashing must be lapped under the building wrap a minimum of 6 inches.

Flashing Installation of Prefabricated Corners

The cutting and folding process required to maintain flashing continuity at inner and outer corners can be eliminated by installing a prefabricated flashing corner. Prefabricated corners will totally encapsulate the corner, ensuring flashing continuity. If self-adhering flashing is not utilized, the prefabricated corner must be thoroughly set in mastic that's compatible with the flashing material. Prefabricated corners provide quick, easy installation and assure a continuous flashing membrane around corner locations (see Figures 6 and 7). The vertical legs of the prefabricated flashing corners must be lapped under the building wrap a minimum of 6 inches.

Conclusion

The details shown in this guide are solutions to common situations that occur in masonry veneer construction. The intent is to show solutions but not preclude other options put forth by the contractor or architect. Often, field conditions demand adjustments to details shown on project drawings.



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