

The exterior of a house presents plenty of opportunity for leaks. A common problem area is the point where the gutter on a single-story roof eave dies into a two-story wall. Roofers or siding contractors often install step flashing that allows roof water to slip behind the gutter and get behind the siding and even the housewrap.

Omitting the needed kickout flashings almost always leads to major damage inside the wood framing behind the exterior cladding. Sometimes this damage is totally concealed until the exterior is opened up, and other times, the damage is blatantly obvious, even when viewed from across the street.

Kickout flashings are used where a lower roofline terminates against a vertical wall. The kickout is installed above the rain gutter and/or drip edge flashing where the roof meets a vertical wall. It kicks out rain water and diverts it away from the lower wall. Without a kickout flashing, the water misses the gutter and runs in behind the siding and gets trapped inside the wall. Missing, or incorrectly installed, kickout flashings are often the source of major structural, mold, and rot damage.

We use layers of flashing integrated into the housewrap to keep water from getting behind exterior cladding; a kickout flashing directs water into the gutter. The process might seem overcomplicated at first, but the minor expense in time is much better than having to tackle rot repairs down the road.

1. Housewrap creates the foundation. Ideally, we like to start by installing a 3-ft. by 3-ft. sheet of housewrap (or even better, a piece of self-adhesive roof underlayment) to the wall before the first truss or roof rafter is placed against it. The sheet acts as a backup at a vulnerable junction. When we can't place the sheet ahead of time, we sometimes can sneak a piece of housewrap back there after prying the truss or rafter back just 1/16 in. and pulling any nails in the way.
2. The next-best starting point. If we can't get some sort of weather barrier against the wall at the end of the eave, we apply a piece of housewrap that runs vertically from just below the soffit to at least 3 ft. down the wall, 6 in. horizontally through the inside corner, and at least a foot beyond the end of the eave.
3. Flexible flashing tape seals the eave end to the wall. We use a wide piece of flexible flashing tape to bridge between the subfascia and the wall. We cut the tape so that it laps onto the housewrap above and 3 in. above the roof sheathing.
4. Thinking ahead. Once the flexible flashing is set, we apply a piece of housewrap along the wall where the fascia hits. This piece isn't absolutely necessary, but later, it becomes easier to cover the wall completely with a final sheet of housewrap.
5. Protect the flashing tape. Although flexible flashing tape is pretty durable, it's best to protect it with metal flashing and to treat it as a backup for water leaks. We fold a piece of metal flashing for the inside corner between the subfascia and the wall. A vertical cut about 2 in. to 3 in. long helps it to fold onto the roof sheathing. We then add a second piece of flexible flashing tape to cover the open corner of the metal flashing, and we fold it down onto the subfascia.
6. There's optional backup protection, too. We sometimes build in 110-mph to 120-mph hurricane zones, so if we install a membrane beneath the step flashing and underlayment, it's cheap insurance against a catastrophic event. We run a 12-in.- or 18-in.-wide strip of plastic-surfaced membrane from eave edge to ridge.

7. After lapping the first piece of roof underlayment up onto the wall by about a foot, We install a kickout diverter flashing that redirects water into the gutter so that it won't channel behind the siding or stucco.

We line up the inside corner of the diverter 1/2 in. to 3/4 in. lower than the edge of the drip edge-essentially equal to the distance you overhang the first course of shingles.

8. Bigger step flashing is better. I recommend 12-in.-wide step flashings bent for a 5-in. roof leg and a 7-in. wall leg. The narrower step flashing just isn't wide enough to protect the intersection fully.

9. Finish with tape. Finally, the housewrap can be laid up on the wall to cover the top of the kickout diverter and step flashings. We cut the wrap at the turnout in the diverter and seal the top of the cut with housewrap tape. The tape adhesive might not last the life of the cladding, but it's a good precaution. Remember that there's a layer of housewrap underneath that will keep the water from getting to the sheathing.