

**BUILDING OFFICIAL DETERMINATION  
No. 6**

**Issue:** Installation of flashing is inconsistent and often not in compliance with code or manufactures' specifications.

**Rule:** 2012 IRC R703.8 Flashing (See also 2012 IRC R703.3.2 (Siding) and R703.6 (Exterior Plaster-Stucco)). Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components.

**Application:** The three code sections listed above, plus at least four others regarding roof-related flashing, are throughout the International Residential Code. The city combined into a booklet the methods and manners contained in the code in an effort to simplify the number of places a contractor must reference when installing flashing. The city consulted with siding manufacturers, compared the code-based booklet with manufactures' specifications, and included helpful instructions in the booklet.

**Determination:** Flashing installation shall be according to the Metal Flashing Guidelines booklet (Rev. October 2017) attached to this determination. Please note on page 11 of the booklet:

Any methods not described in this booklet are to be considered alternate methods and be submitted to the Building Official, in writing, for approval prior to construction (2012 and 2015 IRC R104.11).

  
David Wardell, Building Official

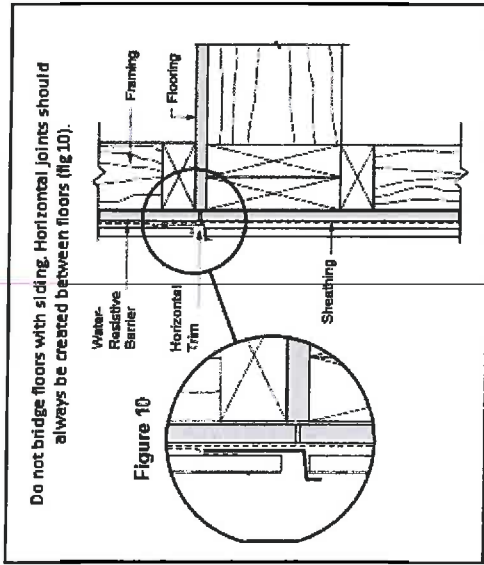
  
Date

**City of Middleton  
Building Department**

**Metal Flashing Guidelines**

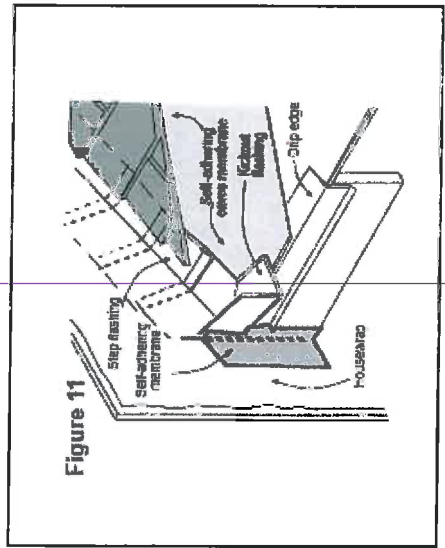


### Kickout Flashing



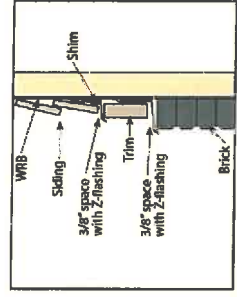
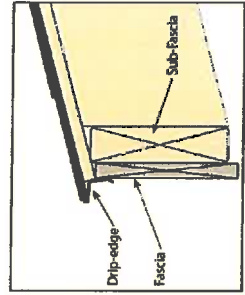
Because of volume of water that can pour down a sloped roof, one of the most critical flashing details occurs where a roof intersects with a sidewall. The roof must be flashed with step flashing. Where the roof terminates, install a kickout to deflect water away from the siding. It is best to install a self-adhering membrane on the wall before the subfascia and trim boards are nailed in place, and then come back to install the kickout.

To prevent water from dumping behind the siding and the end of the roof intersection, install a "kickout" as required by IRC code R905.2.8.3 : "...flashing shall be a minimum of 4" high and 4" wide.



**R703.8 Flashing.** Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Self-adhered membranes used as flashing shall comply with AAMA 711. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:

1. Exterior window and door openings. Flashing at exterior window and door opening shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage. Flashing at exterior window and door openings shall be installed in accordance with one or more of the following:
  - a. The fenestration manufacturer's installation and flashing instruction, or for applications not addressed in the fenestration manufacturer's instructions, in accordance with the flashing manufacturer's instructions. Where flashing instructions or details are not provided, pan flashing shall be installed at the sill of exterior window and door openings. Pan flashing shall be sealed or sloped in such a manner as to direct water to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage. Openings using pan flashing shall also incorporate flashing or protection at the head and sides.
  - b. In accordance with the flashing and design or method of a registered design professional.
  - c. In accordance with other approved methods.
2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings.
3. Under and at the ends of masonry, wood or metal coping sills.
4. Continuously above all projecting wood trim.
5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction.
6. At wall and roof intersections.
7. At built-in gutters.

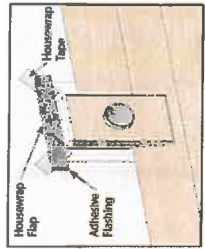


### Mounting Blocks for Exterior Fixtures

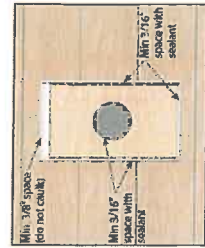
- Trim mounting blocks should extend beyond the face of the siding.
- Prime and paint all cut ends, edges and holes.
- **On-site assembled:**
- Use metal Z-flashing with a minimum 4 inch upper leg over the top side of trim mounting block. Leave a minimum 3/8 inch space above Z-flashing and do not caulk. (diagram 11d)
- Properly integrate the Z-flashing with the housewrap. (diagram 11c)
- Apply fasteners meeting the specification in this document.

#### Pre-assembled

- Properly integrate the built-in placement flange and flashing with the housewrap. (diagram 11c)
- Fasten the built-in placement flange to the framing meeting the pre-assembled trim mounting block manufacturer's instructions.
- When installing pre-assembled trim mounting blocks, leave proper spacing at the two sides and bottom between the built-in placement flange and the siding (minimum 3/16 inch). Seal these spaces with sealant. (diagram 11d)
- Seal the space between the wall-penetrating material or fixture and the mounting block cut-out. (diagram 11d)



11c



11d

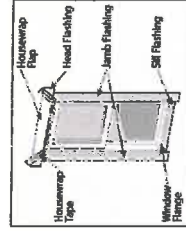
## Corners

Horizontal trim: properly integrate flashing with siding, WRB and vertical trim. (diagram 6a)

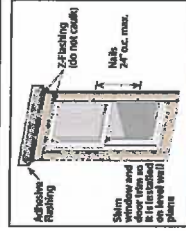


6a

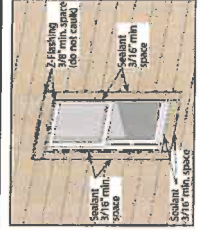
- When installing trim around windows and over window flanges, be sure to follow the window manufacturer's installation instructions.
- All openings must be properly sealed and flashed in a manner that prevents moisture intrusion or buildup. Flashing may be sealed to the water-resistive barrier by using flashing or housewrap tape.
- When trim is installed adjoining vinyl siding, install Z-flashing with a 4 inch upper leg between horizontal trim and J-channel. (diagram 8a)
- Horizontal trim or bands shall be flashed with a sloped metal Z-flashing to redirect water away from the wall assembly.



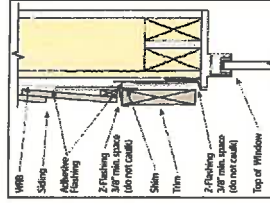
7a



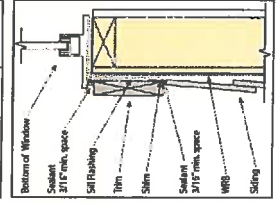
7b



7c



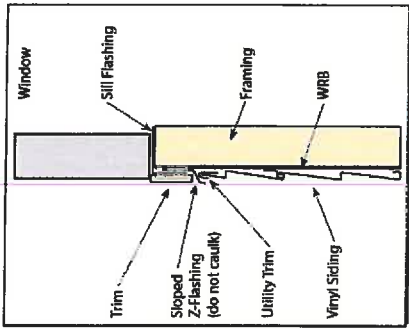
7d



7e

**Trim Adjoining Vinyl Siding**

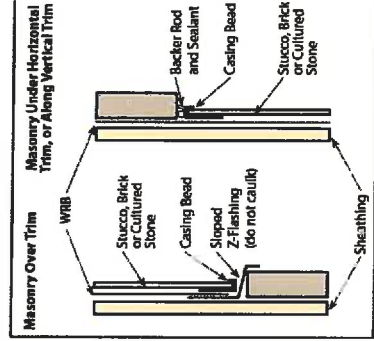
- Install vinyl siding meeting standards of manufacturer's installation instructions.
- Horizontally adjoining trim and vinyl J-channel or utility trim: Install sloped Z-flashing with a minimum 4 inch upper leg (diagram 8a)
- Vertically adjoining trim and vinyl J-channel – J-channel should fit snug to trim.
- Do not caulk between trim and J-channel or utility trim.



8a

**Trim Adjoining Stucco, Brick or Cultured Stone**

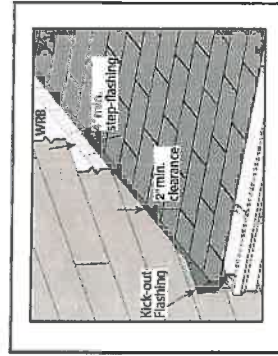
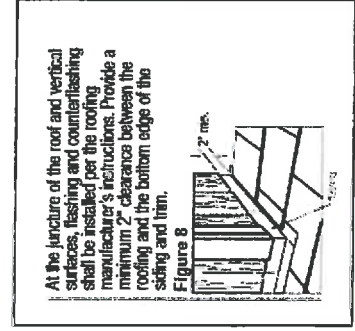
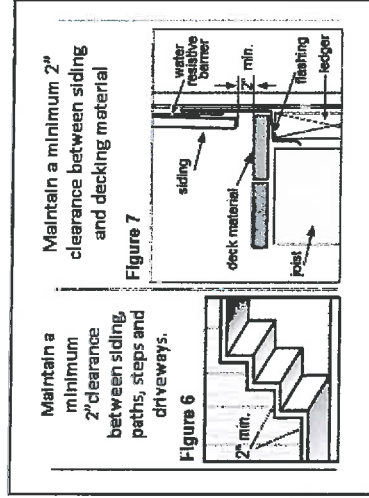
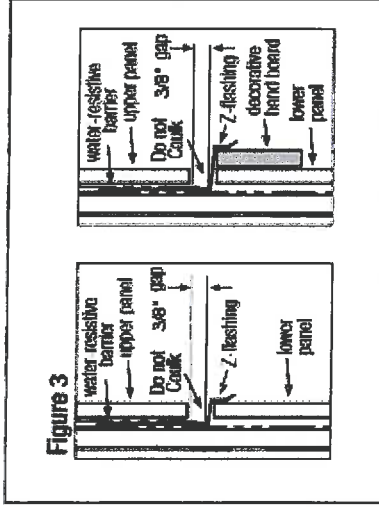
- It is important to use capillary break so moisture absorbed cannot transfer into the trim.
- Avoid direct contact between the trim, stucco, brick or cultured brick
- Separate within a minimum 3/8-inch space and a high quality sealant.
- Additional space may be required by the manufacturer or the stucco, brick or cultured stone cladding. (diagram 8b)
- Other types of impervious material such as aluminum flashing can be used to separate the trim the dissimilar materials should be properly spaced to allow for different rates of thermal or moisture-related movement.
- Apply sloped Z-flashing over horizontal trim so water that may get behind adjoining cladding can be redirected to the outer surface of the wall.



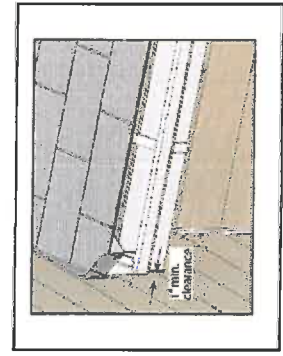
8b

# Water Run-Off Control

- Properly installed flashing materials will direct water away from common water collecting areas.
- All flashing material shall be metal or another durable material that under normal outdoor environmental conditions will last for a period of not less than 50 years.
- **All flashing material must have a minimum 4 inch upper leg.** Add a 4 inch wide adhesive flashing to flashing legs less than 4 inches. (MCC 905.2.8.3)
- Properly integrate flashing with the secondary WRB. Use housewrap, flashing tape, kick-out flashing, step flashing, Z-flashing, drip edge, gutters or other items as needed to maintain the counter-flashing principle.
- Install kick-out flashing to direct the water into the gutter. (Diagram 3a)
- Install step flashing that has a minimum 4 inch upper leg. (Diagram 3a)
- Maintain a minimum 1 inch clearance between the end of the gutter and the adjoining wall to allow for proper maintenance of the siding. (Diagram 3b)
- **Do not extend the siding or trim into the kick-out flashing or gutter.**
- Prime and paint ALL exposed cut edges of siding and trim.



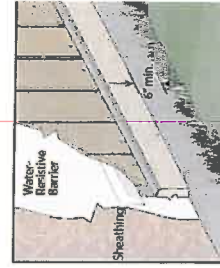
3a



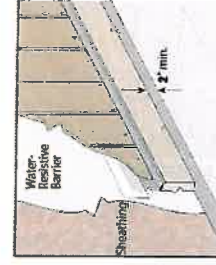
3b

## General Information

- All exposed wood substrate must be sealed in a manner that prevents moisture intrusion and water build up.
- When integrating flashing with a water-resistive barrier (WRB), be sure to follow the WRB installation instructions.
- Install siding products only on walls whose framing members have been kiln dried or air-seasoned to a moisture content of 19% or lower.
- Trim must not be in direct contact with masonry, concrete, brick, stone, stucco, or mortar.
- Minimum 6 inches must be maintained between trim and finished grade. (Diagram 2a)
- Trim applied adjacent to roofs, porches, patios sidewalks, etc. must have clearance of at least 2 inches above any surface where water might collect. The surface must be sloped or otherwise designed to provide proper drainage so the trim is at no time directly exposed to standing water. (Diagram 2b)
- A non-corrosive drip-edge must be applied at bottom edge of roofing where it meets the fascia. (Diagram 2c and 9c)
- In a horizontal brick frieze or band board application where the trim meets the masonry leave a 3/8 inch minimum airspace and flash between the trim and the masonry. (Diagram 2d)



2a



2b

If you have any questions please contact the  
Middleton City Building Official,  
David Wardell at  
[dwardell@middletoncity.com](mailto:dwardell@middletoncity.com)

Any methods not described in this booklet are to be Considered "Alternate Methods" and must be submitted to The Building Official, in writing, for approval prior to Construction. 2015 IRC R104.11