

PROTECTION FROM PRECIPITATION- RESIDENTIAL OCCUPANCY (First & Second planes of Protection)

ONTARIO BUILDING CODE

9.27.2.2. Minimum Protection from Precipitation Ingress

- (1) Exterior walls exposed to precipitation shall be protected against ingress of precipitation with an exterior cladding assembly consisting of a first plane of protection and a second plane of protection where the wall encloses spaces of residential occupancy or spaces that directly serve of residential occupancy.

9.27.2.3. First and Second Planes of Protection

- (1) Where walls required to provide protection from precipitation comprise assemblies with first and second planes of protection,
 - (a) The first plane of protection shall,
 - (i) Consist of cladding, with appropriate trim accessory pieces and fasteners and
 - (ii) Be designed and constructed to minimize the passage of rain and snow into the wall by minimizing holes and managing precipitation ingress caused by kinetic energy or rain drops, surface tension, capillarity, gravity, and air pressure differences,
 - (b) The second plane of protection shall be designed and constructed to,
 - (i) Intercept all precipitation that gets past the first plane of protection, and
 - (ii) Effectively dissipate any precipitation to the exterior and,

- (c) The protection provided by the first and second planes of protection shall be maintained at,
 - (i) Wall penetrations created by the installation of components and services such as windows, doors, ventilation ducts, piping, wiring and electrical outlets, and
 - (ii) The interface with other wall assemblies.

9.27.3.1. Elements of the Second Plane of Protection

- (1) The second plane of protection shall consist of a drainage pane with appropriate inner boundary and flashing to dissipate rainwater to the exterior.
- (2) The inner boundary of the drainage plane shall comply with,
 - (a) Articles 9.27.3.2. to 9.27.3.6., or
 - (b) Subsection 9.27.13.
- (3) The protection provided by the second plane of protection shall be maintained,
 - (a) at wall penetrations created by the installation of components and services such as windows, doors, ventilation, ducts, piping, wiring and electrical outlets, and
 - (b) at the interface with other wall assemblies
- (4) Flashing material and installation shall comply with Articles 9.27.3.7. and 9.27.3.8.

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OBJECTIVE

The objective of the Building Code is to prevent precipitation ingress into the wall assemblies; and to minimize the accumulation of moisture from entering the wall assembly.

For this reason, exterior walls in dwelling units are required to be constructed with an exterior cladding assembly consisting of a first plane of protection and a second plane of protection. In these assemblies the protection provided by the two planes of protection shall be maintained when the assembly is penetrated by services such as doors, windows, ventilation ducts, piping, electrical outlets, wiring, etc.

It is also necessary to maintain the integrity of the two planes of protection at the interface with other wall assemblies.

Refer to the illustrations to the right. Exterior walls require 1st & 2nd planes of protection or Part 5 of the Ontario Building Code.

