



Fire Department and Planning & Development Services Building Division Policy

- Title:** Access requirements for solar photovoltaic systems on one and two-family dwellings.
- Code Name:** 2012 International Fire Code
- Code Sections:** 605.11.3.2.1 Residential buildings with hip roof layouts, 605.11.3.2.2 Residential buildings with a single ridge, 605.11.3.2.3 Residential buildings with roof hips and valleys, 605.11.3.2.4 Residential building smoke ventilation.

Code Language:

605.11.3.2.1 Residential buildings with hip roof layouts.

Panels/modules installed on residential buildings with hip roof layouts shall be located in a manner that provides a 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels/modules are located. The access pathway shall be located at a structurally strong location on the building capable of supporting the live load of fire fighters accessing the roof.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.3.2.2 Residential buildings with a single ridge.

Panels/modules installed on residential buildings with a single ridge shall be located in a manner that provides two, 3-foot-wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels/modules are located.

Exception: This requirement shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.3.2.3 Residential buildings with roof hips and valleys.

Panels/modules installed on residential buildings with roof hips and valleys shall be located no closer than 18 inches (457 mm) to a hip or a valley where panels/modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.

Exception: These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.

605.11.3.2.4 Residential building smoke ventilation.

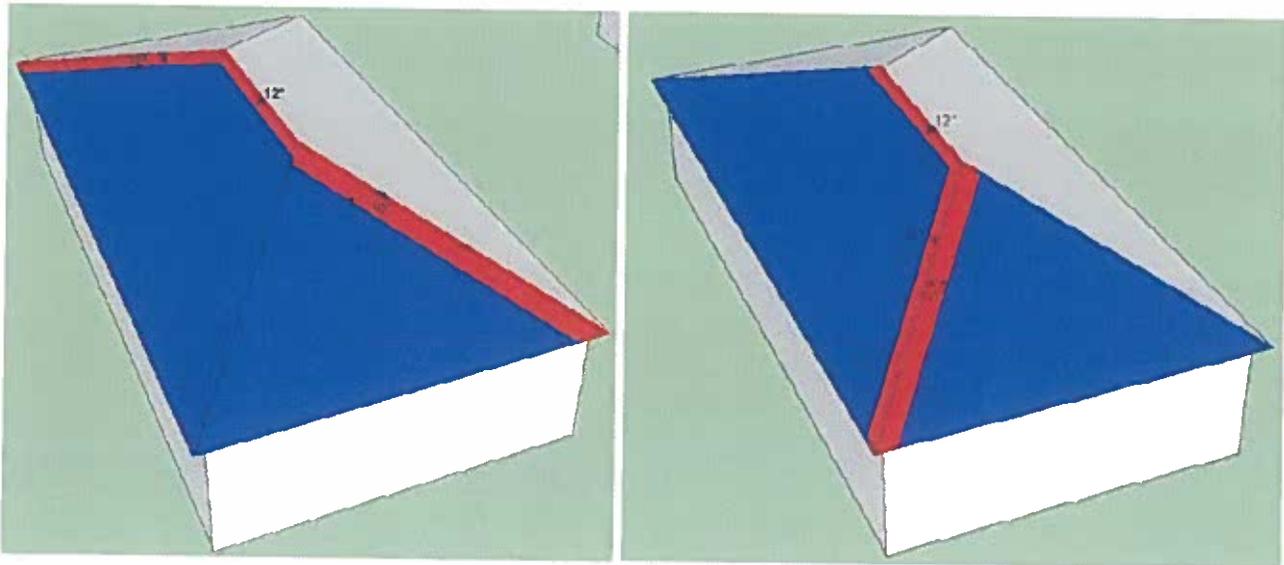
Panels/modules installed on residential buildings shall be located no higher than 3 feet (914 mm) below the ridge in order to allow for fire department smoke ventilation operations.

Scope of Policy: To support the use of residential solar technology while providing an alternate method for fire department operations for ventilation and roof access. This policy is intended to address access pathway requirements for solar photovoltaic system installations for on one and two-family dwellings only and is not intended to supersede any other requirements of 605.11.

Policy:

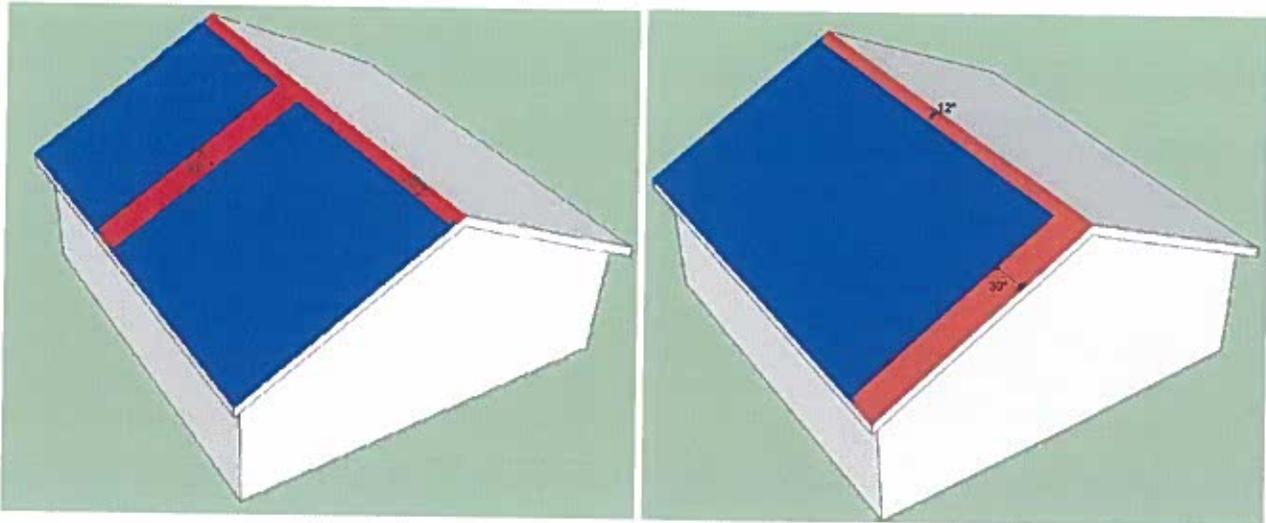
Hip Roof Layouts –

- Panel/module arrays less than 1,000 square feet in size shall require a clear access pathway of not less than 12-inch-width along each side of all horizontal ridges and a clear access pathway of not less than 30-inch-width from the eave to the ridge of one roof slope where panels/modules are located.
- Panel/module arrays less than 1,000 square feet in size shall require a clear access pathway of not less than 12-inch-width along each side of all horizontal ridges and where panels/modules are to be placed on both sides of a hip, a clear access pathway of not less than 18-inch-width shall be provided along each side of such hip.
- Panel/module arrays that do not exceed 33 percent of the total roof area of the structure, as measured in plan view, shall not require access pathways.



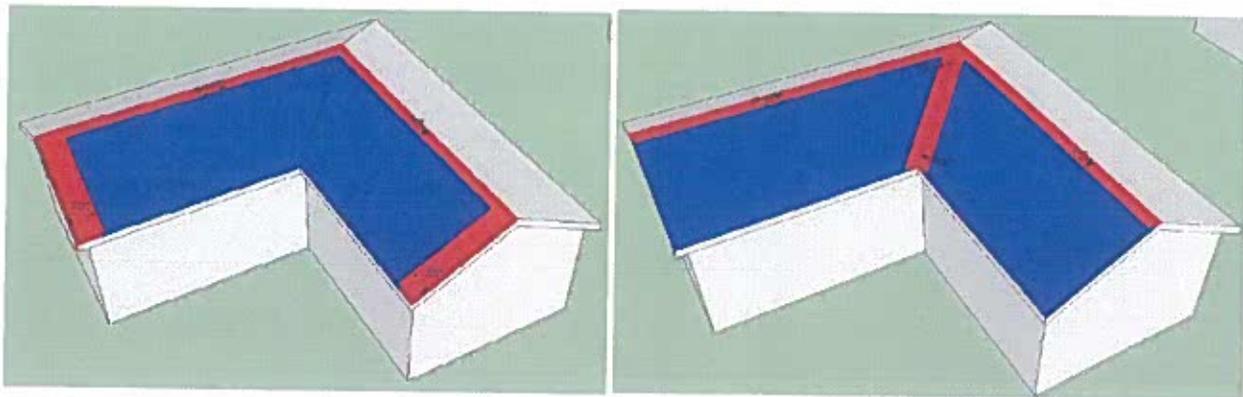
Single Ridge Layouts –

- Panel/module arrays less than 1,000 square feet in size shall require a clear access pathway of not less than 12-inch-width along the horizontal ridge and a clear access pathway of not less than 30-inch-width from the eave to the ridge of the slope where panels/modules are located.
- Panel/module arrays that do not exceed 33 percent of the total roof area of the structure, as measured in plan view, shall not require access pathways.



Hips and Valleys Layouts –

- Panel/module arrays less than 1,000 square feet shall require a clear access pathway of not less than 12-inch-width along each side of all horizontal ridges and a clear access pathway of not less than 30-inch-width from the eave to the ridge of one roof slope where panels/modules are located.
- Panel/module arrays less than 1,000 square feet shall require a clear access pathway of not less than 12-inch-width along each side of all horizontal ridges and where panels/modules are to be placed on both sides of a hip, a clear access pathway of not less than 18-inch-width shall be provided along each side of such hip.
- Panel/module arrays that do not exceed 33 percent of the total roof area of the structure, as measured in plan view, shall not require access pathways.



Intent:

The intent of this policy is to allow for alternative fire department access pathways which represent a reduction in the prescriptive code requirements for residential solar photovoltaic system installations. The basis for these reductions is actual fire department operations and assessed need for access pathways. These pathways and access maybe used for any number of situations including structure fires or incidents involving the solar systems. It is recognized that fire department roof operations in one and two-family dwellings vary greatly from incident to incident. Factors such as the construction of the building, fire severity and availability of alternative techniques for ventilation, such as horizontal ventilation routes are all considered. These variations are clearly recognized in the code in Section 605.11.3., exception 2, which provides significant support for this alternate.



Fire Code Official
Romeo Gervais



Effective Date



Building Official
Jason Blais



Date Retired