

PHOTOVOLTAIC: Firefighter access to the ridge

Though firefighting practices differ from district to district, the concept of venting and controlling the smoke and heat of a structure fire is universal. Fighting fire requires managing smoke and air, and that means controlling and creating openings. Often firefighters will ascend to the ridge of a roof to cut a hole and vent the smoke. Doing so provides a way for the smoke to exit a room and allow for a rescue operation. It takes enough bravery to scale the roof of a burning home, and putting solar panels in the way just increases the danger.

To provide the most effective panel arrangement possible, while still providing a path for firefighters, the code gets a little complicated and specific:

NFPA-1, 2018

11.12.2.2.2 One- And Two-Family Dwellings and Townhouses

Photovoltaic systems installed in one- and two-family dwellings and townhouses shall provide roof access in accordance with 11.12.2.2.2. Designation of ridges shall not apply to roofs with 2 in 12 or less pitch.

11.12.2.2.2.1 Pathways

Not less than two 36 in. (914 mm) wide pathways on separate roof planes, from gutter to ridge, shall be provided on all buildings. One pathway shall be provided on the street or driveway side of the roof. For each roof plane with a PV array, a 36 in. (914 mm) wide pathway from gutter to ridge shall be provided on the same roof plane as the PV array, on an adjacent roof plane or straddling the same and adjacent roof planes. Pathways shall be located in areas with minimal obstructions such as vent pipes, conduit, or mechanical equipment.

11.12.2.2.2.2

For PV arrays occupying up to 33 percent of the plan view roof area, a minimum 18 in. (457 mm) pathway shall be provided on either side of a horizontal ridge. For PV arrays occupying more than 33 percent of the plan view roof area, a minimum of 36 in. (914 mm) pathway shall be provided on either side of a horizontal ridge

