Southwest Washington Chapter of ICC

This construction detail is illustrative of the minimum standard of construction based upon the 2021 IRC / WAC 51-51

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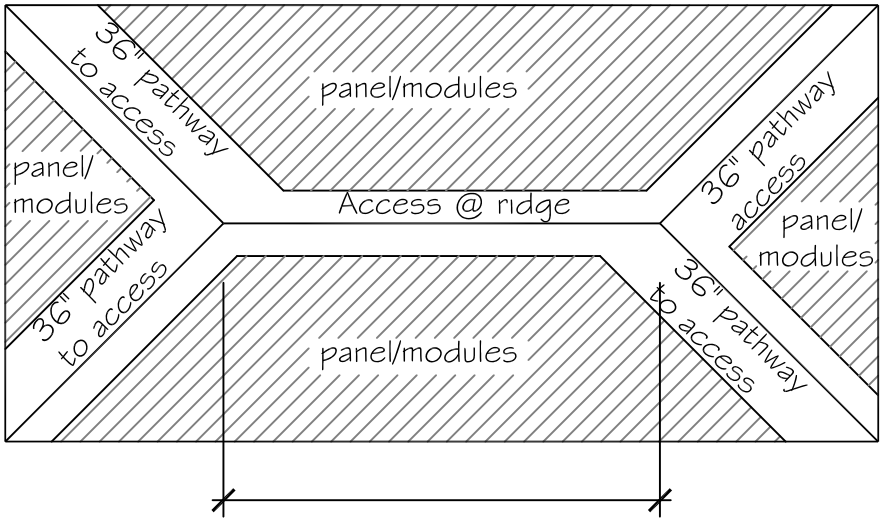
Per the 2021 IRC/WAC R324.3 Photovoltaic panels/modules, shall be listed per UL 1703. Installation, modification, or alteration of solar photovoltaic power systems shall comply with this section and the International Fire Code (IFC) R104.11. Inverters shall comply with UL 1741.



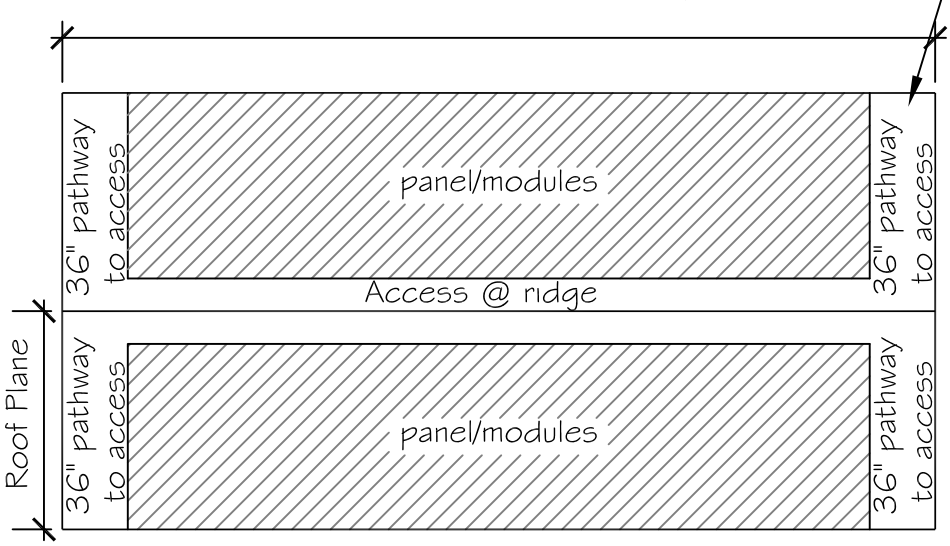
IRC R324.6.2 Setback at Ridge, typical at hip and gable roofs

Photovoltaic arrays < 33% of the plan view total roof area, requires not less than an 18" clear setback on both sides of a horizontal ridge.

Photovoltaic arrays > 33% of the plan view total roof area, requires not less than a 36" clear setback on both sides of a horizontal ridge.

This allows for fire department smoke ventilation operations and emergency egress.

Exceptions: Detached, nonhabitable structures, per code official determination, 2:12 roof slopes or less.



Notes:

1. See R324.4 for structural requirements. The design must take into account the following:
   - Roof loads per R301.4 or R301.6.
   - Wind loads per Table R301.2(2) and Table R301.2(3)
2. Rooftop-Mounted Photovoltaic shall be installed per NFPA 70 or meet all of the following:
   - Designed for the local wind speed (check with each jurisdiction) and the manufacturer's specifications.
   - Snow loads 70 psf maximum.
   - The dead loads of modules, supports, mounting, raceways and all other appurtenances shall weigh no more than 4psf.
   - Photovaltic panels/modules shall be mounted no greater than 18" above the surface of the roof.
   - No point load from supports shall exceed 50 pounds.

R324.6.1 Pathways for hip, gable and shed (not shown) roofs.

- Clear paths for full length of ridge.
- At least two paths required on separate roof planes.
- At least one path accessible from public way or driveway.
- Minimum 36" wide path to EERO.

Solar panels access/ventilation

10-12-23 | IRC 324.3