



Solar Panel Installation Requirements

Solar panels are regulated by the State of Oregon Solar Installation Specialty Code. An on-line view-only version of the code is available at: https://www.oregon.gov/bcd/codes-stand/documents/2010_osisc_commentary.pdf

Solar panel installations will require structural and electrical permits.

Installations complying with prescriptive path requirements are required to complete and submit the attached forms. See 2019 OSSC Section 3111.3.5.3. Also see 2010 OSISC 305.4. Pay special attention to the roof attachment requirements in this section as it also applies to all structures in Hood River County.

The electrical permit fee is typically \$92.96 (service & branch circuit, \$83.00 + 12% State surcharge). The fee may vary, depending on the actual installation. The electrical permits are available our office or Oregon e-Permitting.

Installations not complying with the prescriptive path requirements will require plans prepared and stamped by the Oregon registered engineer to be submitted, along with the permit application. Fees for those installations will be based on the valuation and will include a plan review fee. Please contact the Building Services office at **541-386-1306** or 541-387-6840 with the total project valuation to determine the fees.

**Oregon Solar Installation Specialty Code Check
List for Prescriptive Photovoltaic Installations in
accordance with Section 305.4**



Hood River County Community Development
Building Services Department
601 State Street
Hood River, OR 97031
541-386-1306 building@hoodrivercounty.gov
Oregon e-Permitting: BuildingPermits.oregon.gov

Property Owner Information	
Property Owner Name:	
Installation address:	NSA: Yes No
City:	State: Oregon Zip Code:
Structure on which modules are to be installed:	
Day phone:	Evening phone:
Email address:	
Contractor:	CCB#:
Day phone:	Evening phone:
Email address:	

SITE PLAN

- Attach a simple site plan showing the location of the PV system in relation to buildings, structures, property lines, and, as applicable, flood hazard areas.
- System must be shown in sufficient detail to assess whether the requirements of section 304.9 or one of the exceptions have been met.
- The site plan must be on 8.5 x 11 or larger paper.

Land Use Approval, if required _____

Properties within the National Scenic Area may require a Land Use Review.

PV Modules

- • Manufacturer: _____
- • Model Number: _____
- • Listing Agency: _____

STRUCTURAL INFORMATION:

- Is this conventional light framed wood construction? _____
 - Does the structure have pre-engineered trusses? _____
- OR**
- Does structure have roof framing members spaced at 24 inches on center maximum? _____
 - Is the weight of the PV modules and racking less than 4.5 pounds per square foot? _____
 - Is the roofing material metal, single layer wood shingle, or not more than two layers of composition shingle? _____

STANDING SEAM METAL ROOFS:

- Is the metal gauge 26 or heavier? _____
- Clamp design: Are clamps designed to withstand uplift of at least 115 pounds for clamps spaced at 60 inches on center or less or at least 75 pounds for clamps spaced at 48 inches on center or less? _____
- Is the spacing of the clamps as measured along the seam less than or equal to 24" on center? _____
- Is the roofing panel width 18-inches or greater? _____
- Will the roofing panel attachments be at least #10 screws at 24-inches on center? _____
- Will the roofing panels be installed over minimum 1/2-inch nominal wood structural panels attached to framing with 8d nails at 6-inches on center at panel edges and 12-inches on center field nailing? _____

If no, on any of these requirements, the project may not be submitted using the prescriptive path.

ROOF DESIGN AND ATTACHMENT

- Attach a simple structural plan showing the roof framing (rafter size, type, and spacing) and PV system racking attachment.
- System must be shown in sufficient detail to assess whether the requirements of section 305.4 have been met.
- The structural plan must be on 8.5 x 11 or larger paper, drawn to scale minimum 1/4" = 1'.

WIND DESIGN

- Is the module height less than 18 inches above the roof in accordance with section 305.4?

Applicant name (please print)

Applicant Signature

Date

Photovoltaic Pathways

Detached One- and Two-Family Dwellings and Townhouses

Overview

The increase in demand for photovoltaic (PV) systems on rooftops created an awareness of the need for firefighter safety. Designated pathways on roofs with PV systems are necessary to provide safe unobstructed access for firefighting operations and to also provide escape routes.

This bulletin is intended to provide technical guidance on the requirements as they apply to PV systems installed on detached one- and two-family dwellings and townhouses and includes some examples illustrating common installations and roof types.

Where required

Designated pathways shall be provided for all rooftop-mounted PV systems installed on detached one- and two-family dwellings and townhouses, except as noted below. The required dimensions and locations of pathways vary based on the amount of roof area the PV system covers and the presence of adjacent roof planes, as uniquely defined.

Pathways are entirely exempted as follows:

- Nonoccupied accessory structures that are separated from occupied structures by not less than five feet or by a two-hour fire-resistance-rated assembly.
- Where pathways are deemed unnecessary for the specific building based on the fire official's recommendation, and approved by the building official.

Definitions

The following definitions are important to the application of the pathway provisions:

Solar roof plane. A roof plane on which a photovoltaic array is installed. A solar roof plane does not include building-integrated photovoltaic solar shingles.

Photovoltaic array. A mechanically integrated assembly of modules or panels with a support structure, foundation, tracker, and other components, as required to form a power-producing unit.

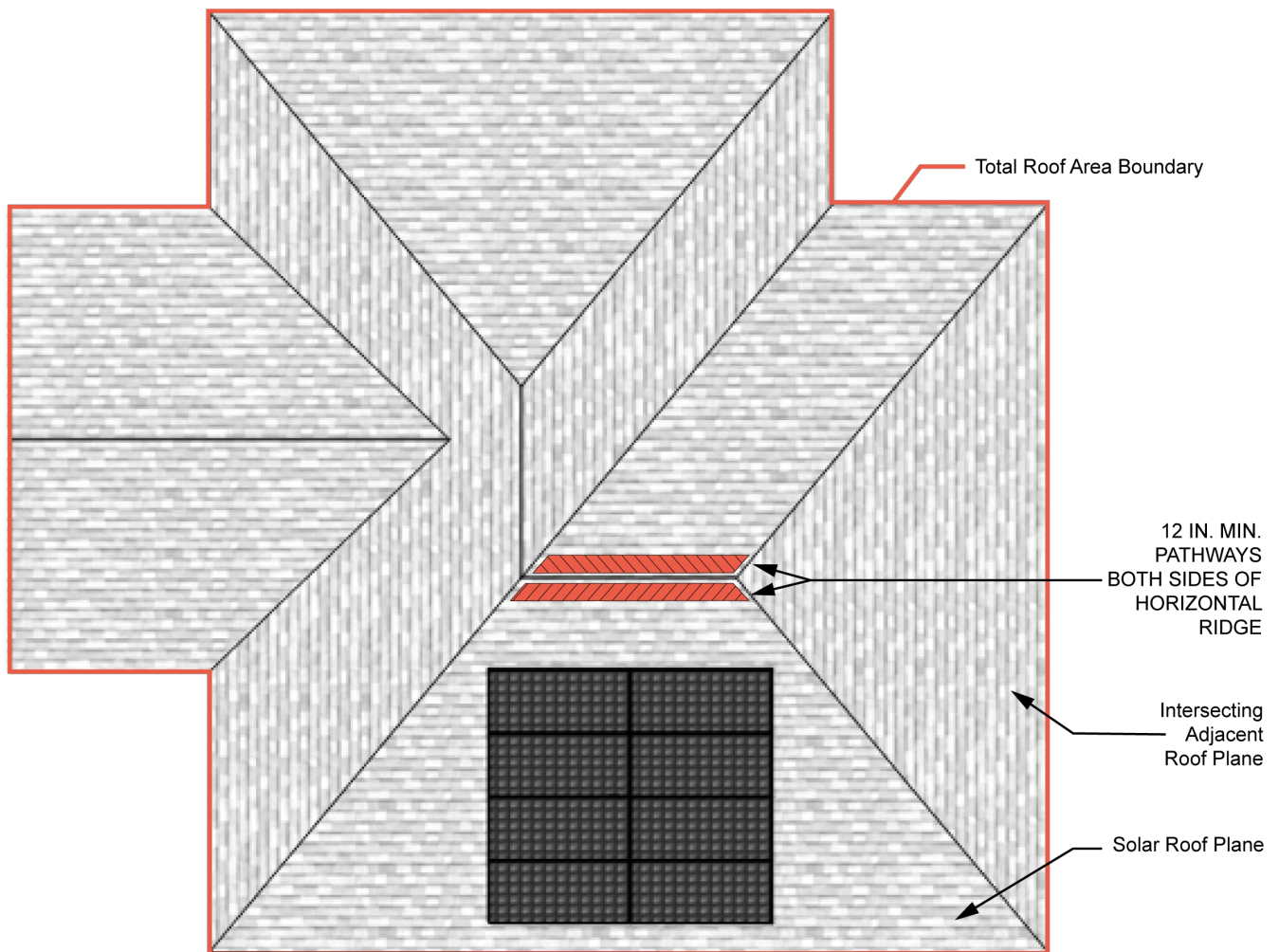
Roof area. The square footage of the roof, measured in plan view sharing a common attic below.

Adjacent roof plane. For the purposes of firefighter access and escape pathway provisions, the solar roof plane is contrasted with the adjacent roof plane. To be considered an adjacent roof plane, the roof plane adjacent to the photovoltaic array installation must be free of photovoltaic panels. In typical gable roof construction, the south-facing roof will generally be the preferred place for the installation of photovoltaic panels, and it will become the solar roof plane. Where the north-facing roof plane does not contain any photovoltaic panels, it would be considered the adjacent roof plane.

Examples

The following examples are provided to illustrate compliance with the pathway requirements and exceptions for common installations and roof types. These examples are not exhaustive and are intended only to provide general guidance related to the intent of the pathway code provisions.

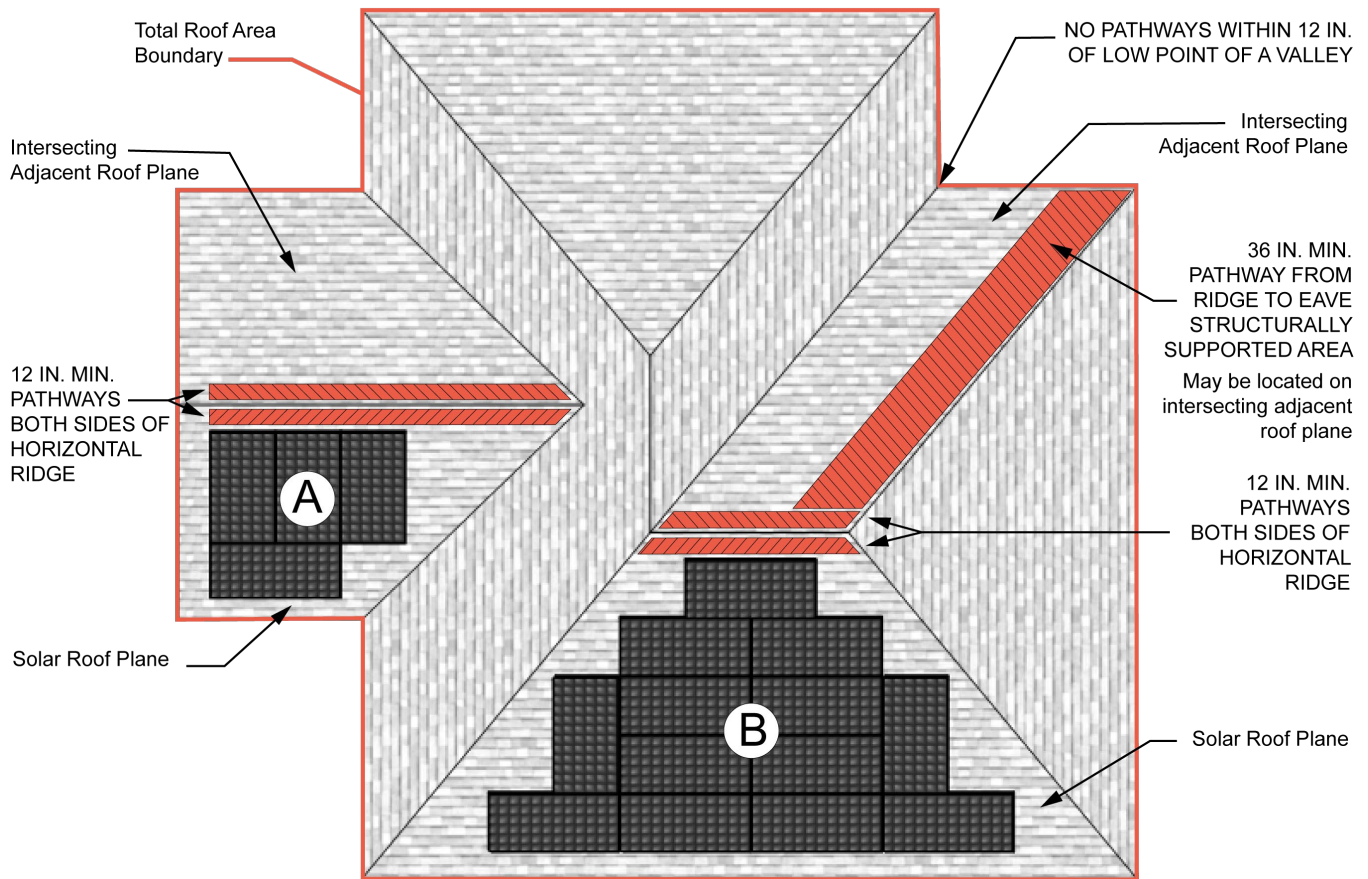
FIGURE 1



Details:

1. Roof slope exceeds 2 in 12.
2. Array is less than 150 ft in length and width.
3. Array is less than 1,000 ft² in area.
4. Intersecting adjacent roof planes are present.
5. Array area is less than 25% of the total roof area.
6. Attic spaces are not divided.

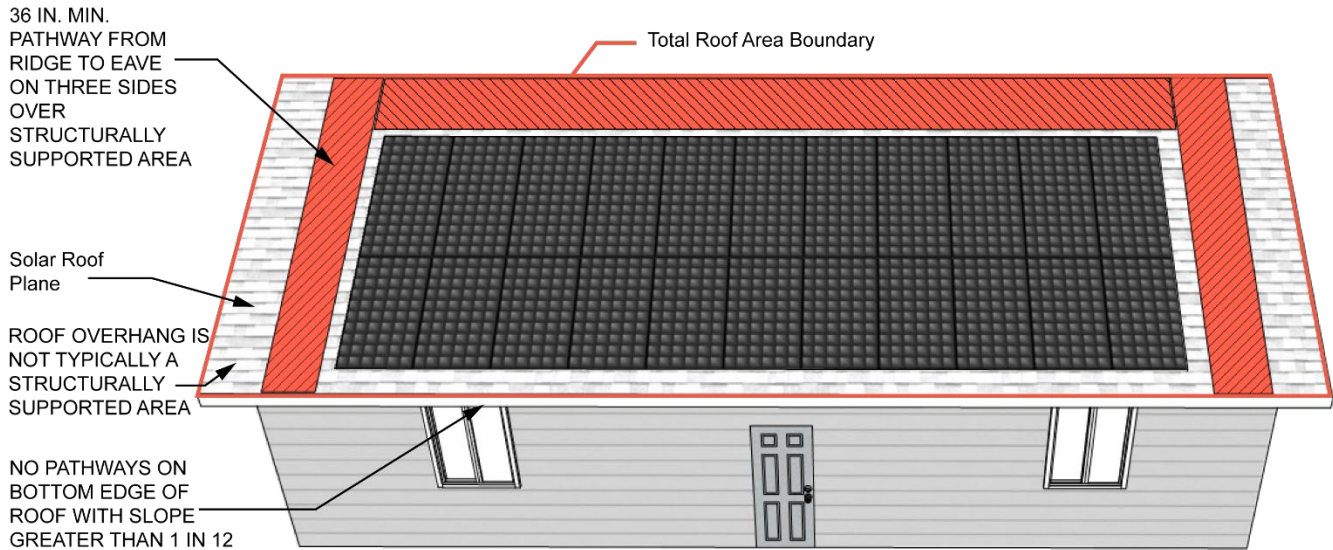
FIGURE 2



Details:

1. Roof slopes exceed 2 in 12.
2. Arrays (A) and (B) are each less than 150 ft in length and width.
3. Arrays (A) and (B) are each less than 1,000 ft² in area.
4. Intersecting adjacent roof planes are present.
5. Array (A) area is less than 25% of the total roof area.
6. Array (B) area is greater than 25% of the total roof area.
7. Attic spaces are not divided.

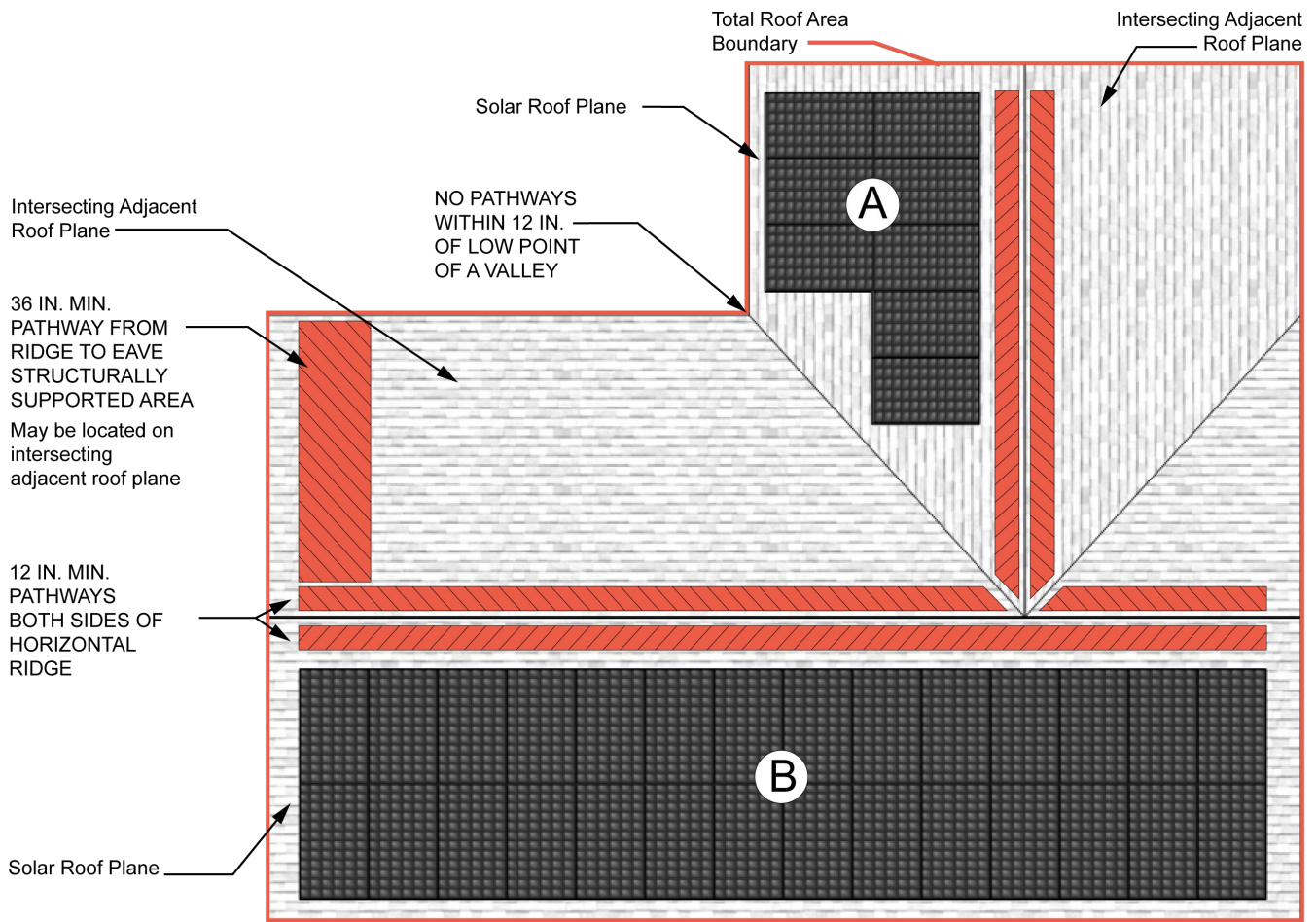
FIGURE 3



Details:

1. Roof slope exceeds 2 in 12.
2. Array is less than 150 ft in length and width.
3. Array is less than 1,000 ft² in area.
4. No intersecting adjacent roof planes are present.
5. Array area is greater than 25% of the total roof area.
6. Attic spaces are not divided.

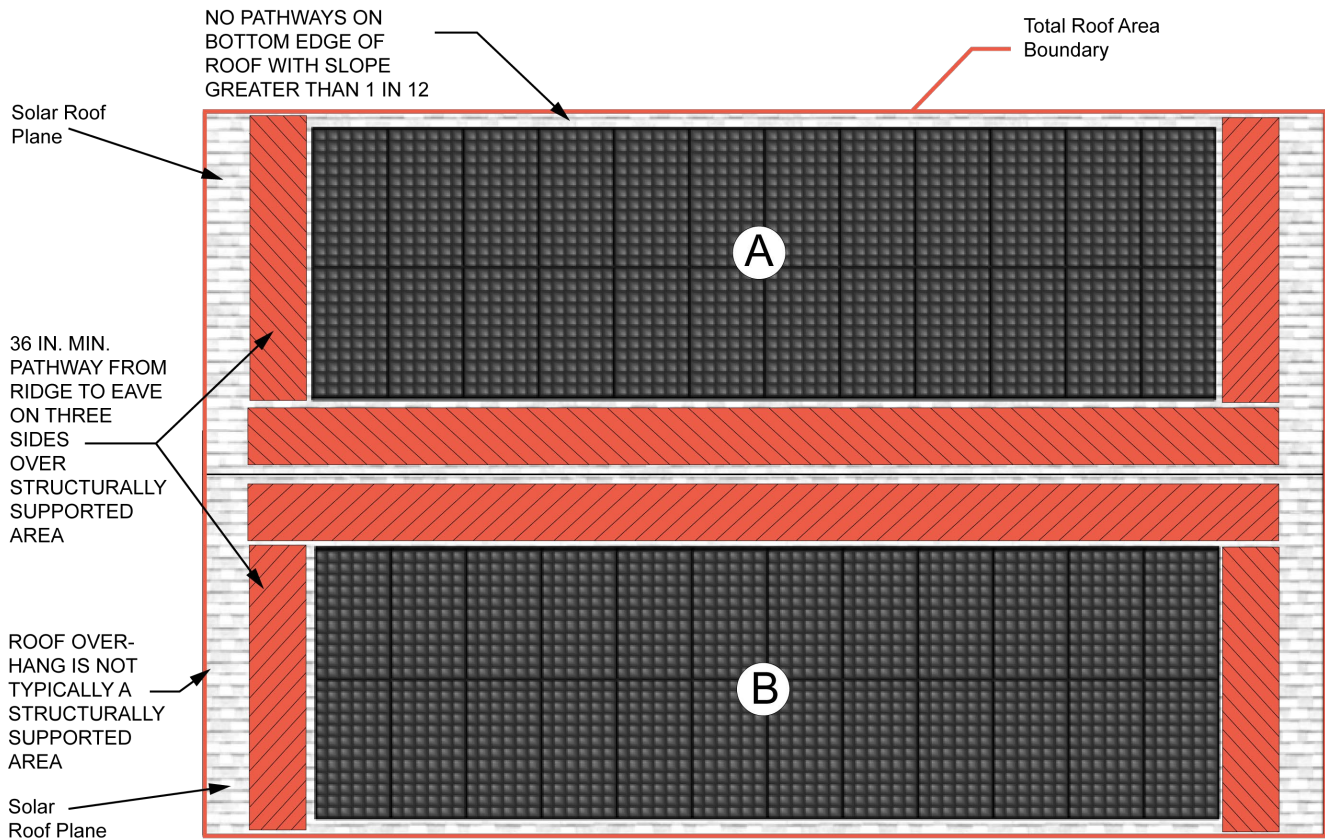
FIGURE 4



Details:

1. Roof slopes exceed 2 in 12.
2. Arrays (A) and (B) are each less than 150 ft in length and width.
3. Arrays (A) and (B) are each less than 1,000 ft² in area.
4. Intersecting adjacent roof planes are present.
5. Array (A) area is less than 25% of the total roof area.
6. Array (B) area is greater than 25% of the total roof area.
7. Attic spaces are not divided.

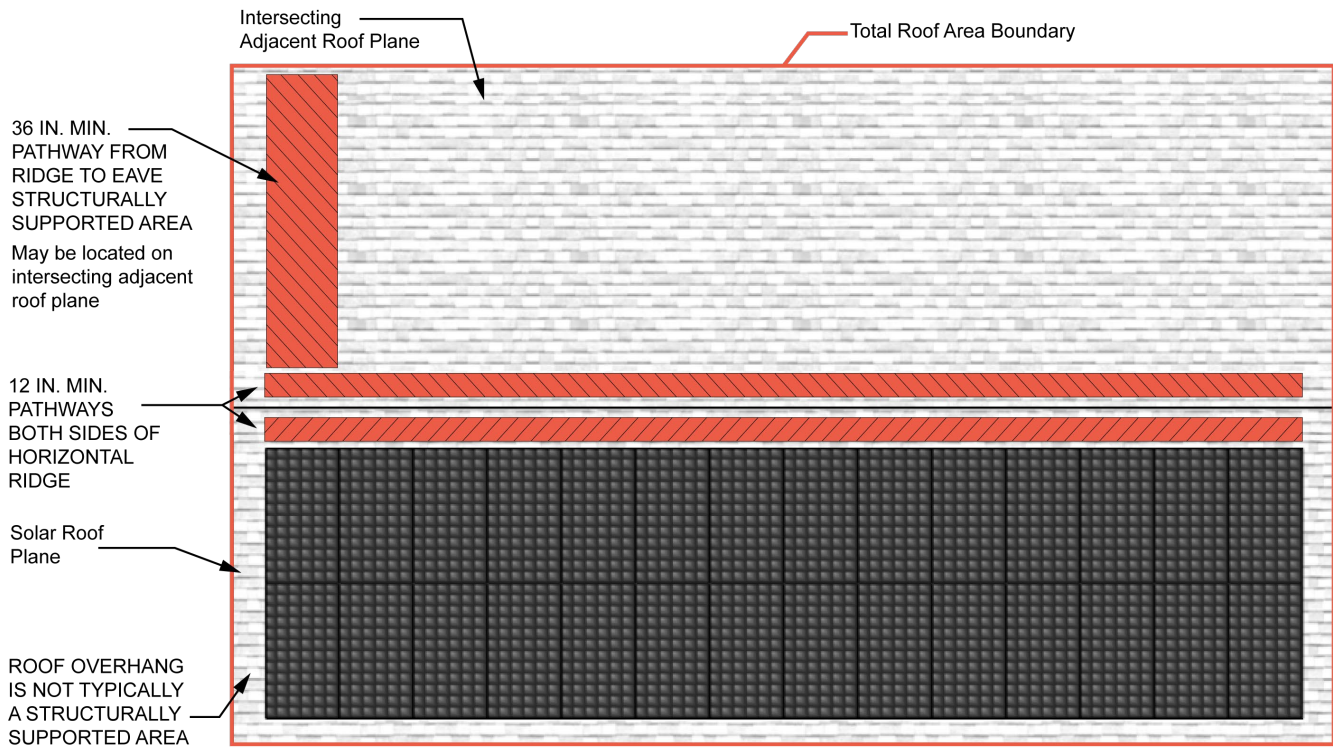
FIGURE 5



Details:

1. Roof slopes exceed 2 in 12.
2. Arrays (A) and (B) are each less than 150 ft in length and width.
3. Arrays (A) and (B) are each less than 1,000 ft² in area.
4. No intersecting adjacent roof planes are present.
5. Array (A) area is greater than 25% of the total roof area.
6. Array (B) area is greater than 25% of the total roof area.
7. Attic spaces are not divided.

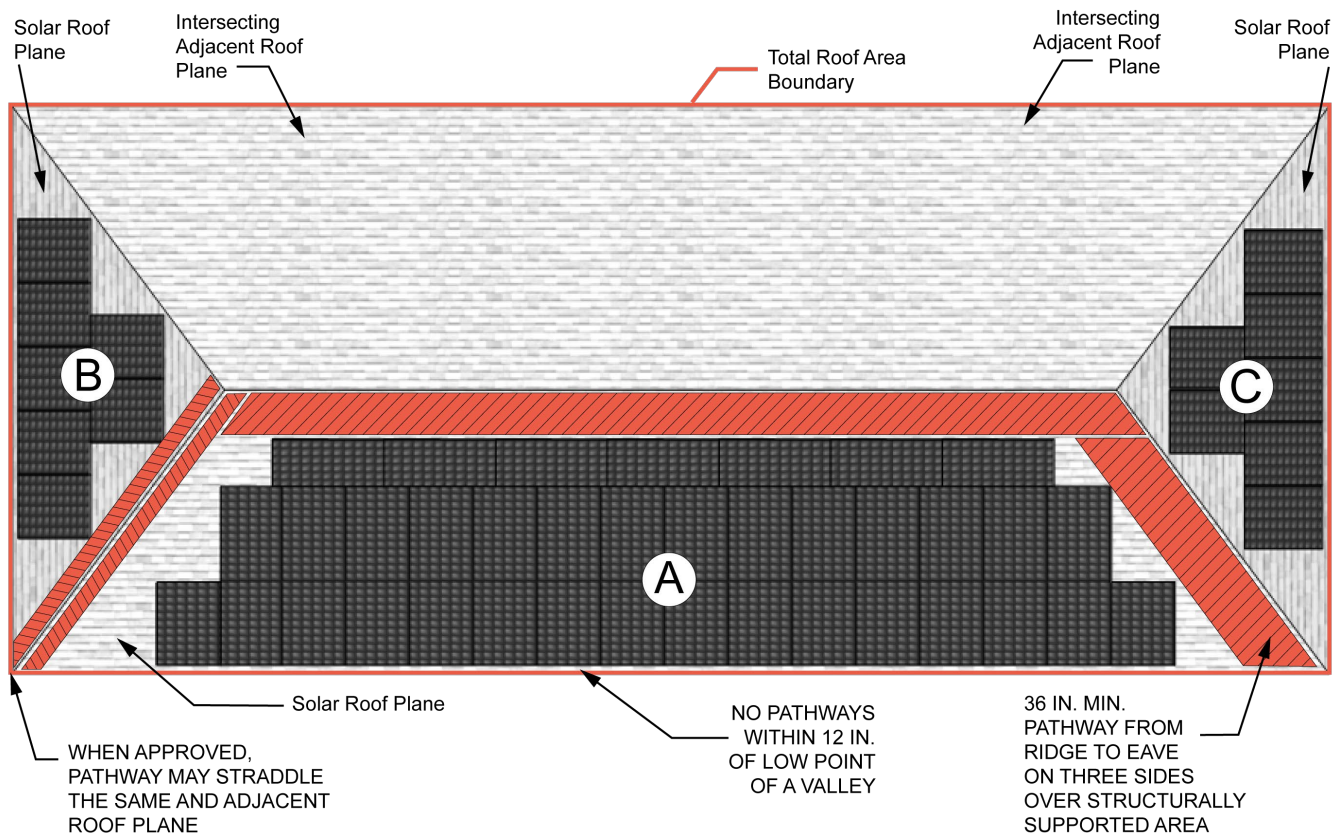
FIGURE 6



Details:

1. Roof slopes exceed 2 in 12.
2. Array is less than 150 ft in length and width.
3. Array is less than 1,000 ft² in area.
4. Intersecting adjacent roof plane is present.
5. Array area is greater than 25% of the total roof area.
6. Attic spaces are not divided.

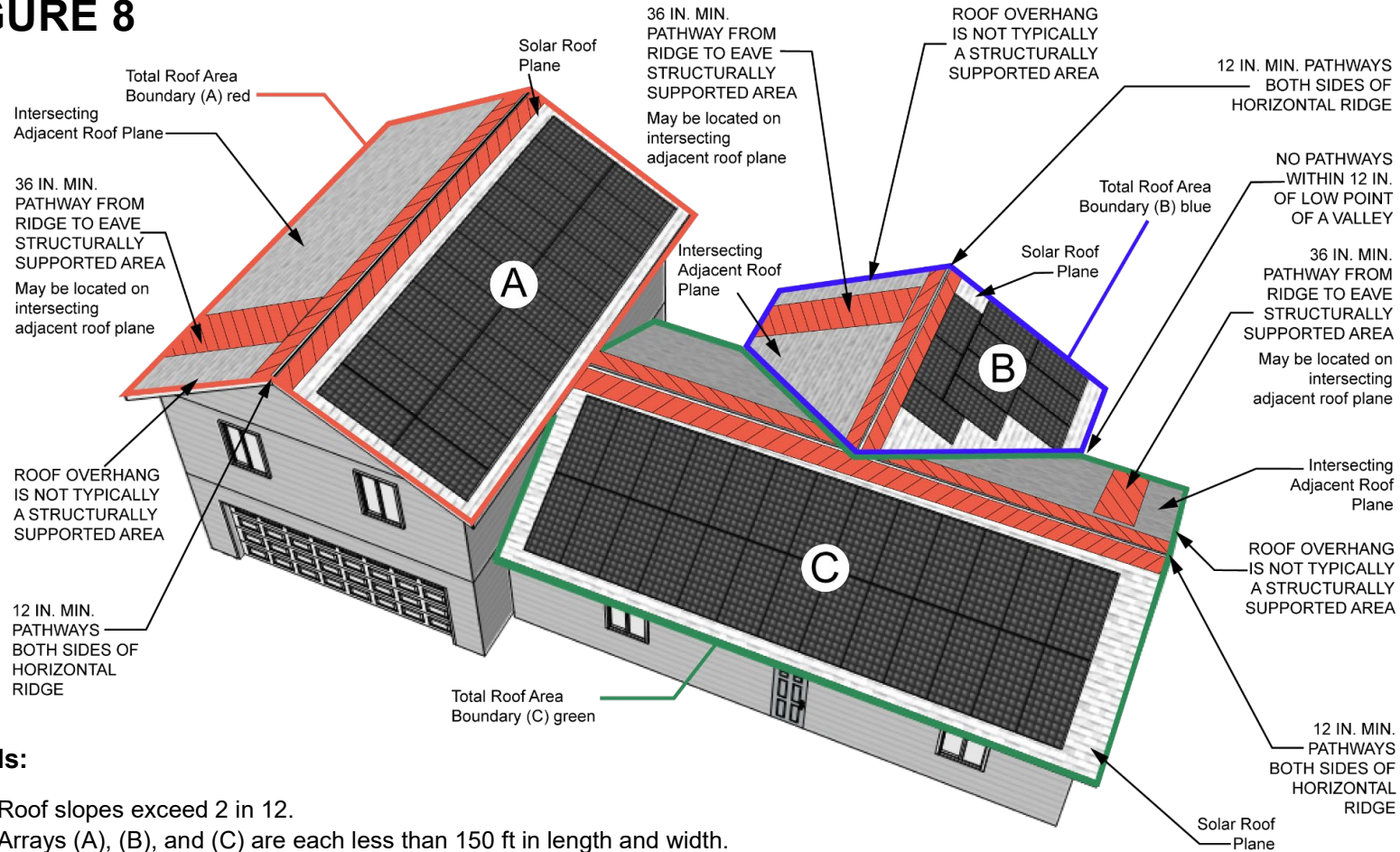
FIGURE 7



Details:

1. Roof slopes exceed 2 in 12.
2. Arrays (A), (B), and (C) are each less than 150 ft in length and width.
3. Array (A) is greater than 1,000 ft² in area.
4. Arrays (B) and (C) are each less than 1,000 ft² in area.
5. Intersecting adjacent roof planes are present.
6. Array (A) area is greater than 25% of the total roof area.
7. Arrays (B) and (C) areas are each less than 25% of the total roof area.
8. Attic spaces are not divided.

FIGURE 8



Details:

1. Roof slopes exceed 2 in 12.
2. Arrays (A), (B), and (C) are each less than 150 ft in length and width.
3. Intersecting adjacent roof planes are present for arrays (A), (B), and (C).
4. Array (A) area is less than 1,000 ft² and greater than 25% of the total red roof area.
5. Array (B) area is less than 1,000 ft² and greater than 25% of the total blue roof area.
6. Array (C) area is less than 1,000 ft² and greater than 25% of the total green roof area.
7. Attic spaces for the red, blue, and green roof areas are divided and are not contiguous.

Questions?

For information about a specific project, contact the local building department: Oregon.gov/bcd/lbdd.