



Prescriptive Rooftop-Mounted Solar Photovoltaic Installation Checklist — Commercial

Building department:

Use this checklist to demonstrate compliance with the prescriptive rooftop-mounted photovoltaic (PV) system installation requirements of the Oregon Structural Specialty Code. Separate electrical permits are required for these installations. Refer to OAR 918-050-0180.

PART I – PROPERTY OWNER INFORMATION

Property owner name:

Phone number:

Installation address:

City:

State: Oregon

ZIP:

Structure description:

PART II – CONTRACTOR INFORMATION

Contractor's name:

Phone number:

Email address:

BCD license #:

CCB license #:

PART III – STRUCTURAL CRITERIA

Check the appropriate boxes for each item as it applies to the project.

If "No" is selected for any item below, or if the supporting structure is a manufactured dwelling, the project **may not** be submitted using the prescriptive path.

- Structure is Risk Category I or II (Section 1604.5): Yes No
- Structure is of conventional light-frame construction: Yes No
- Supporting roof framing is one of the following: Yes No
 (check one)
 - Pre-engineered trusses are spaced less than or equal to 24 inches on center (o.c.); **or**
 - Rafters are spaced less than or equal to 24 inches o.c. and spans comply with 3111.3.5.3 Items 1.5 and 1.6
- Ground snow load does not exceed 50 pounds per square foot (psf)
 (or 70 psf for Group U occupancy structures): Yes No
- Basic design wind speed does not exceed the following: Yes No
 (check one)
 - 120 mph in Wind Exposure Category C; **or**
 - 135 mph in Wind Exposure Category B
- Roofing materials are metal, single-layer-wood shingles or shakes, or
 not more than two layers of composition shingle: Yes No
- Total weight of the PV panel system, including modules and racking,
 will not exceed 4.5 psf: Yes No
- Module height will be no more than 18 inches from the top of the module to the roof surface
 and comply with Figures 3111.3.5.3(2) and 3111.3.5.3(3) accordingly: Yes No

(continued)

PART III – STRUCTURAL CRITERIA (continued)

- PV modules or racking will be attached to the roof using one of the following methods: Yes No
(check one)

Attachment Method 1

1. Direct attachment to the **roof framing or blocking; and**
2. Attachment spacing
 - a. Less than or equal to 24 inches in any direction; **or**
 - b. Greater than 24 inches and less than or equal to 48 inches in any direction where **all** of the following exist:
 1. Ground snow load is less than or equal to 36 psf.
 2. Attachments are not located within 3 feet of a roof edge, hip, eave, or ridge.
 3. Basic design wind speed
 - a. Less than or equal to 120 mph in Wind Exposure Category B **or**
 - b. Less than or equal to 110 mph in Wind Exposure Category C.

Attachment Method 2

1. Direct attachment to **standing seam metal roofing panels; and**
2. Attachment clamps comply with all of the following requirements:
 - a. Allowable uplift capacity of the clamps is not less than:
115 pounds, where clamp spacing is greater than or equal to 48 inches o.c.; **or**
75 pounds, where clamp spacing is less than 48 inches o.c.
 - b. Clamp spacing along a panel seam will be greater than or equal to 24 and less than or equal to 60 inches o.c.
 - c. Parallel to seam clamp spacing multiplied by the perpendicular clamp spacing will be less than or equal to 10 square feet.
3. The metal roofing panels comply with all the following requirements:
 - a. Panel thickness is minimum 26-gauge steel.
 - b. Panel width is less than or equal to 18 inches.
 - c. Attached with minimum #10 screws at 24 inches o.c.
 - d. Installed over minimum ½-inch nominal wood structural panel sheathing that is fastened to framing with 8d nails at 6 inches o.c. at panel edges and 12 inches o.c. field nailing.

PART IV – ROOF FRAMING PLAN

Provide and attach a simple plan showing the roof framing members (type, size and spacing) and PV system racking attachment points in accordance with the local municipality’s submittal requirements. The proposed system must be shown in sufficient detail to assess whether the prescriptive installation requirements of Section 3111.3.5.3 will be met.

PART V – PV MODULES

Manufacturer:

Model number:

Listing agency:

PART VI – LOCATIONS AND PATHWAYS

Provide and attach a site plan in accordance with the municipality’s submittal requirements, showing the location of the proposed PV array(s) on the building(s) and the required firefighter access and escape pathways. The proposed system must be shown in sufficient detail to assess whether the location and pathway requirements of Sections 3111.3.4.1 through 3111.3.4.8 will be met. (ref. <https://www.oregon.gov/bcd/codes-stand/Documents/techb-solarpv-pathways.pdf>).