



Code Amendment Proposal Application **OSSC 22-08**

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Building Codes Division
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APPLICANT INFORMATION

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PROPOSAL INFORMATION

Specialty code:	Oregon Structural Specialty Code (OSSC)
Code section(s):	1609.1
Briefly explain the subject of your proposal:	This proposal adopts state wind maps in the format previous OSSC cycles has taken (design speed per county).

Code Review Committee Outcomes
Nov. 9, 2021 – Approved.

OSSC Code Amendment Proposal Submission - 3111.3.5.3(3), Exception 2

Proposal

1. This proposal seeks to align the existing OSSC language with the original OSISC language in a specific prescriptive installation exception addressing solar attachments on standing seam metal roofs. Much of the OSSC language is either identical to, clarifies, or elaborates on the OSISC language. However, this exception was written into OSSC in such a way as to create confusion for PV system designers, plan-checkers, installers, and inspectors. The proposed code amendment would simply restore the original OSISC language.

Simply put, the original OSISC language is: Clamp spacing between or along seams shall not be less than 24-inches (610mm).

The current OSSC language is: Clamp spacing between or along seams shall not be less than 24-inches (610mm).

3111.3.5.3(3), Exception 2: Clamp spacing between **or along** the seams shall not ~~exceed~~ **be less than** 24 inches (610mm). Spacing of clamps along a seam shall not exceed 60-inches.

2. The problem is that many individuals interpret this code to require that there are no more than 24 inches between solar attachments on standing seam metal roofs.
 - a. In practical terms, this means additional hardware on a metal roof which is not only structurally unnecessary, costly, and time-consuming, but it can also be more hardware than the roofing manufacturer recommends for this application.
 - b. N/A
 - c. This proposal would eliminate confusion by aligning the language with the original OSISC language. Currently, the 24 inch maximum spacing noted in Exception 2 appears to conflict with Exception 1 of the same code section, which discusses wind uplift capacity of the solar clamps, and notes clamp spacing maximums of 60 inches and 75 inches, based on different wind uplift conditions.
 - d. N/A
 - e. N/A
 - f. The alternative to making this change is to simply not make the change and continue to leave this code section up to individual system designers, plan checkers, installers, and inspectors to interpret, as they do now.
 - g. N/A
 - h. The potential impact of this proposal would be the reduction in the number of unnecessary PV attachments to standing seam metal roofs, which would require fewer resources both from the raw materials standpoint as well as transportation and labor. It would also reduce the cost of a typical standing seam metal roof installation by a modest amount.
 - i. N/A
3. At the national code level, the International Building Code does not have specific prescriptive installation guidelines, but instead requires that structures be built to withstand wind loads in IBC or ASCE provided tables.

Implementation and Fiscal Impact

1. This proposal should not require any additional enforcement. No additional inspections or permits would be required. This proposal would not require any additional equipment, tests, or certifications. Additional training would only be necessary to the extent that all code updates require some degree of familiarization by concerned parties, such as inspectors, plan-checkers, PV installers, and PV designers.
2. Any fiscal impact would be due to a reduced number of PV roof attachments that would be installed on standing seam metal roofs. Each PV attachment is typically priced between \$5 and \$10, with a typical PV system using fewer than 100 attachments. A reduction in the number of attachments could save approximately \$250-\$500 in equipment costs.
 - a. This proposal would reduce the cost of construction by reducing the number of PV attachments, the additional labor required to mount those attachments, and the nominal shipping & transportation costs associated with the reduction in equipment quantities.
 - b. There would potentially be a minimal reduction in profits for PV attachment manufacturers and distributors for the PV systems that would no longer be forced to have the excessive number of PV attachments on standing seam metal roofs.
 - c. N/A

Impacted stakeholders and other specialty codes

1. This proposed amendment was discussed and reviewed by Technical Committee of the Oregon Solar + Storage Industries Association (OSSIA). PV Designers, PV Project Managers, and PV System Installers were present in the discussions. All individuals involved in the discussion acknowledged that this is a point of confusion within the industry as well as with inspectors and plan-checkers. All agreed that it would be best to correct the code to match the OSISC language.
2. To the best of our knowledge, this proposal would not impact other specialty codes or statewide programs.