28357 Industrial Blvd.
Hayward, CA 94545
1-800-227-9523
IronRidge.com

Attn: Sean McDonald, CEO, IronRidge Inc.
Date: August 22nd, 2025

Re: Engineering Certification for the IronRidge Design Assistant-XR, AIRE and ClickFit Pitched Roof Systems

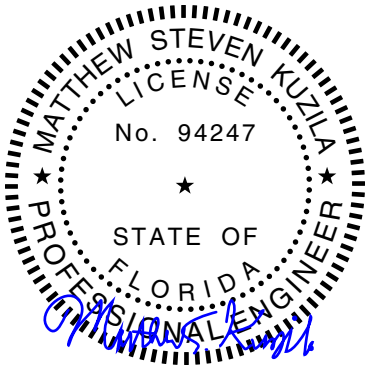
The IronRidge Design Assistant (DA) software includes structural analysis for the IronRidge XR system (XR10, XR100 and XR1000 rails), AIRE system (A1 and A2 Rails) and ClickFit (LTE and STD Rails), when used in pitched roof applications. The IronRidge XR, AIRE and ClickFit Flush Mount Systems are proprietary rooftop mounting systems used to support photovoltaic (PV) modules installed in portrait or landscape orientation and set parallel to the underlying roof surface. PV modules are supported by extruded aluminum rails and secured to the rails with IronRidge mounting clamps. The rails are side mounted to a selected roof attachment with stainless steel bonding hardware and the attachment is secured directly to the underlying roof structure.

This letter certifies that the IronRidge Design Assistant, used for the structural analysis of the IronRidge XR, Aire and ClickFit Flush Mount Systems, complies with the following codes and design criteria. When the IronRidge XR, AIRE or ClickFit flush mount systems are installed according to the IronRidge DA project report and manufacturer's installation guidance, compliance with below codes and design criteria is met.

Building Codes:

1. 2023 Florida Building Code, Eighth Edition
2. ASCE/SEI 7-10, 7-16, 7-22, Minimum Design Loads for Buildings and Other Structures, by American Society of Civil Engineers
3. International Building Code, 2012-2024 Edition
4. International Residential Code 2012-2024 Edition
5. AC428, Acceptance Criteria for Modular Framing Systems Used to Support Photovoltaic (PV) Panels, November 1, 2012 by ICC-ES
6. Aluminum Design Manual 2015 & 2020, by The Aluminum Association, Inc.
7. ANSI/AWC NDS-2015-2024, National Design Specification for Wood Construction, by the American Wood Council
8. SEAOC (Structural Engineer Association of California) report PV2-2017 Wind Design for Solar Arrays

Sincerely,



Digitally signed by Matthew S Kuzila
Reason: I am the author of this document
Date: 2025.08.22 15:37:05 -07'00'

Matthew S Kuzila, P.E.

Expires 02.28.2027

This item has been electronically signed and sealed by Matthew S Kuzila on the date adjacent to the seal using an SHA authentication code. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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The IronRidge DA meets the above code requirements provided the following Design Criteria.

Design Criteria:

a. Structure Risk Category II, III.
b. Basic Wind Speed 90-180 (mph) per ASCE 7 Chapter 26 Figures 26.5-1B & 26.5-1C.
c. Wind Exposure Category = B, C & D.
d. Topographic Factor Kzt = 1.0.
e. Roof Zones per ASCE 7-16, 7-22 Chapter 30 for Gable or Hip roofs.
f. Exposed modules per ASCE 7-16, 7-22Chapter 29.
g. Ground Snow Load = 0-120 (psf) per ASCE 7 Fig. 7.2-1.
    a. No other special snow conditions are considered including unbalanced, drifting, sliding, retention, ponding snow or rain on snow surcharge.
h. Building Height Max=60', defined as the average of the roof eave height and the roof ridge height measured from grade for roofs with pitches above 10 degrees and defined as the eave height for roofs with pitches less than or equal to 10 degrees.
i. Roof Pitch = 8-60 degrees.
j. Seismic Importance = 1.0.
k. Minimum 2" clearance and maximum 10" clearance from top of PV panel to roof surface.

Roof Attachments that are analyzed in the Ironridge DA online tool are limited to IronRidge and QuickMount branded products. Third party supplied roof attachments are not reviewed; when using third party attachments the structural capacity, connection to IronRidge Rails and applicability to a specific project are to be verified by a registered design professional.

The IronRidge DA online tool is intended to be used under the responsibility of a registered design professional where required by the authority having jurisdiction. Any user of the IronRidge DA shall have sufficient structural engineering knowledge and experience to understand the required design criteria per the above applicable building codes, verify if the IronRidge DA is applicable to the project, and select the appropriate values for all input parameters within the IronRidge DA.

This certification excludes evaluation of:

1. The structure to support the loads imposed on the building by the array; including, but not limited to, strength and deflection of structural framing members, fastening and/or strength of roofing materials, and/or the effects of snow accumulation on the structure.
2. The capacity of the solar module frame to resist the loads.