

June 20, 2013

Sol Attach, LLC
Attn: Kevin Stapleton
16238 Bear Run
San Antonio, TX 78247



Re: Solar Mounting System for Pitched Rooftops with **Sol Attach Max** Roof Mounting System in Hawaii

To Whom It May Concern:

Anchor Engineering, Inc. has reviewed the Sol Attach Max Roof Mounting System for the design assumptions outlined below and we have concluded that the Sol Attach Max Roof Mounting System is in compliance with the following codes/standards.

1. ASCE 7-05 – Minimum Design Loads for Buildings and Other Structures, by ASCE/SEI, 2005.
2. ASCE 7-10 – Minimum Design Loads for Buildings and Other Structures, by ASCE/SEI, 2010.
3. 2006 International Building Code, by International Code Council, Inc., 2006.
4. 2009 International Building Code, by International Code Council, Inc., 2009.
5. 2012 International Building Code, by International Code Council, Inc., 2012.

Design Assumptions:

- Ultimate Wind Speed (V_{ult}) of no more than 193 mph (miles per hour), Basic Wind Speed (V_{ASD}) of no more than 150 mph at Exposure Category A, B, or C as defined by ASCE 7-05 for roofs pitched between 7 and 27 degrees.
- Ultimate Wind Speed (V_{ult}) of no more than 174 mph (miles per hour), Basic Wind Speed (V_{ASD}) of no more than 135 mph at Exposure Category A, B, C, or D as defined by ASCE 7-10 for roofs pitched between 7 and 27 degrees.
- Ultimate Wind Speed (V_{ult}) of no more than 258 mph (miles per hour), Basic Wind Speed (V_{ASD}) of no more than 200 mph at Exposure Category A, B, or C as defined by ASCE 7-05 for roofs pitched between 27 and 45 degrees.
- Ultimate Wind Speed (V_{ult}) of no more than 232 mph (miles per hour), Basic Wind Speed (V_{ASD}) of no more than 180 mph at Exposure Category A, B, C, or D as defined by ASCE 7-10 for roofs pitched between 27 and 45 degrees.
- Maximum mean roof height of no more than 30'-0" as defined by ASCE 7-10/ASCE 7-05.
- Importance Factor of no more than 1.0 as defined by ASCE 7-10/ASCE 7-05.
- Roof sheathing minimum thickness of 7/16" OSB
- Snow load of 0 psf.
- Dry service conditions.
- Array may be located within roof zones 1, 2, or 3.
- Analysis of the mount is based upon the maximum effects of either the largest gravity loads or wind uplift loads. The point loads (either positive or negative) can act in either direction depending upon the type of loading (i.e. wind, snow...etc.).
- Fasteners installed per manufacturer specifications.
- Four PV mounts per PV module such that adjacent modules share two PV mounts.

Product Specifications :

- Aluminum alloy is 6061-T6.
- (8) #12 Kwikseal II WoodBinders per Sol Attach PV mount.

Module Specifications:

- Modules may be installed in landscape or portrait orientation.
- Modules may have a maximum short side dimension of 39.1”.
- Modules may have a maximum long side dimension of 77.1”.
- Modules may be a maximum of 59.5lb.

Please see attached data sheets for the Sol Attach Max Roof Mounting System specification sheet.

The Sol Attach Max Roof Mounting System was evaluated for pull-out resistance of the fasteners and punching shear in the OSB. Review of any building structural element is outside the scope of this letter.

Should questions arise, or if further information is required, please contact our office.

Sincerely,
Anchor Engineering, Inc.

Reviewed by:




Expires: 04/30/13

This work was prepared by
me or under my supervision.



Dustin C. Stallings, E.I.
Design Engineer I

Eric A. Hanson, P.E., S.E.
Principal