

July 2, 2013

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



Re: Solar Mounting System for Pitched Rooftops with Sol Attach Mounting System in **Minnesota**

To Whom It May Concern:

Anchor Engineering, Inc. has reviewed the Sol Attach Roof Mounting System for the design assumptions outlined below and we have concluded that the Sol Attach 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. 2007 Minnesota State Building Code.

Design Assumptions:

- 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.
- Dry service conditions.
- Roof Slopes from 7 to 45 degrees.
- Roof sheathing minimum thickness of 7/16" OSB
- 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.
- When using the Sol Attach, four PV mounts per PV module such that adjacent modules share two PV mounts.
- Snow load = 42 psf.
- Basic Wind Speed of  $V_{ASD} = 90$  mph. Ultimate Wind Speed of  $V_{ult} = 116$  mph.

Product Specifications:

- Aluminum alloy is 6061-T6.
- Kwikseal II Woodbinder Screws. The screws must penetrate the sheathing fully and have a minimum of three threads exposed.
- (4) screws per Sol Attach 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 Roof Mounting System specification sheet.

The Sol Attach 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:

  


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

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

LICENSED PROFESSIONAL ENGINEER  
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: ERIC A. HANSON  
Signature:   
Date 7/12/13 License # 48850