April 5, 2013

ANCHOR ENGINEERING, INC.
www.anchoreng.com

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

Re: Solar Mounting System for Pitched Rooftops with Sol Attach Roof Mounting System in New York

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. 2003 International Building Code, by International Code Council, Inc., 2003.
4. 2006 International Building Code, by International Code Council, Inc., 2006.
5. 2009 International Building Code, by International Code Council, Inc., 2009.
6. 2012 International Building Code, by International Code Council, Inc., 2012.

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.
- Roof sheathing minimum thickness of 7/16" OSB
- 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.
- Kwikseal II Woodbinder Screws
- #12-8 Woodgrip XG Screws

Roof Pitch: 7-27°			Snow	Fastener Req'd per Sol
Exposure	**Wind Speed (V_{ult})**	**Wind Speed, (V_{asd})**	**Load**	**Attach**
B, C	155 mph ≥ x > 129 mph	120 mph ≥ x > 100 mph	70 psf	(6) Kwikseal
B, C	129 mph ≥ x > 116 mph	100mph ≥ x > 90 mph	70 psf	(4) Kwikseal
B, C	116 mph ≥ x	90 mph ≥ x	70 psf	(4) Kwikseal or Woodgrips
D	142 mph ≥ x > 116 mph	110 mph ≥ x > 90 mph	70 psf	(6) Kwikseal
D	116 mph ≥ x > 109 mph	90 mph ≥ x > 85 mph	70 psf	(4) Kwikseal
D	109 mph ≥ x	85 mph ≥ x	70 psf	(4) Kwikseal or Woodgrips

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Roof Pitch: 27-45° Exposure	Wind Speed, (V_{ult})	Wind Speed, (V_{asd})	Snow Load	Fastener Req'd per Sol Attach
B, C	206 mph ≥ x > 194 mph	160 mph ≥ x > 150 mph	35 psf	(6) Kwikseal
B, C	194 mph ≥ x > 180 mph	150 mph ≥ x > 140 mph	40 psf	(6) Kwikseal
B, C	180 mph ≥ x > 168 mph	140 mph ≥ x > 130 mph	50 psf	(4) Kwikseal
B, C	168 mph ≥ x > 154 mph	130 mph ≥ x > 120 mph	55 psf	(4) Kwikseal or Woodgrips
B, C	154 mph ≥ x > 142 mph	120 mph ≥ x > 110 mph	60 psf	(4) Kwikseal or Woodgrips
B, C	142 mph ≥ x	110 mph ≥ x	70 psf	(4) Kwikseal or Woodgrips
D	180 mph ≥ x > 168 mph	140 mph ≥ x > 130 mph	45 psf	(6) Kwikseal
D	168 mph ≥ x > 154 mph	130 mph ≥ x > 120 mph	50 psf	(4) Kwikseal
D	154 mph ≥ x > 148 mph	120 mph ≥ x > 115 mph	60 psf	(4) Kwikseal or Woodgrips
D	148 mph ≥ x > 129 mph	115 mph ≥ x > 100 mph	65 psf	(4) Kwikseal or Woodgrips
D	129 mph ≥ x	100 mph ≥ x	70 psf	(4) Kwikseal or Woodgrips

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.

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

Reviewed by:

Patrick J. Kervin, P.E.
Principal