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ENLARGED VIEWING & HYPERLINKS:
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ELECTRONIC VERSION PROVIDES VIEWING UP TO 6400%.

SCOPE OF WORK:
GENERIC PV STRUCTURAL PLAN

DESIGNED PER:
ASCE 7

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PV RAIL INSTALLATION PLAN

PV RAIL INSTALLATION PLAN

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PV RAIL INSTALLATION PLAN

THIS "PAPER" PLAN IS INTENDED TO PROVIDE THE ESSENTIAL INFORMATION NEEDED BY AHJ (AUTHORITY HAVING JURISDICTION AKA BUILDING DEPARTMENT) AND INSTALLERS. USERS ARE ENCOURAGED TO ACCESS EV (ELECTRONIC VERSION) OF THIS PLAN. ACTIVE HYPERLINKS ON EV PROVIDE EASY ACCESS TO SUPPLEMENTAL INFORMATION. EV ALSO ALLOWS VIEWER TO STUDY THE PLAN AND OEM (ORIGINAL EQUIPMENT MANUFACTURER) DETAILS AT MAGNIFICATIONS OF VIEWER CHOICE UP TO 6400%. IF A CONFLICT SHOULD OCCUR BETWEEN A DRAWING AND/OR SPECIFICATION HEREON AND AN OEM DETAIL, OEM SHALL PREVAIL.

1. THIS PLAN IS FOR SINGLE FAMILY RESIDENTIAL PROJECTS ONLY. MULTI-FAMILY & COMMERCIAL/INDUSTRIAL PROJECTS REQUIRE SITE-SPECIFIC PLANS.
2. THIS PLAN SHALL BE USED SOLELY FOR PROJECTS IN AREAS WHERE WINDSPEED IS Vult 170 MPH OR LESS. INSTALLATIONS IN HIGHER WIND AREAS SHALL REQUIRE SITE-SPECIFIC ENGINEERING.
3. SEE EVEREST RAIL SELECTION CHART FOR ROOF ATTACHMENT SPACING.

THIS PLAN OFFERS TWO INSTALLATION METHODS:

1. FRAMING
2. SHEETING

MINIMUM FASTENERS @ EACH ROOF ATTACHMENT SHALL BE STAINLESS STEEL AS FOLLOWS:

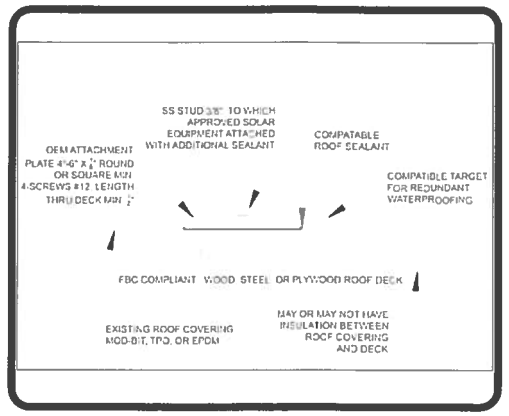
- FRAMING -SINGLE 5/16 DIAMETER LAG INTO CENTER OF FRAMING WITH 3-INCH THREAD EMBEDMENT.
- SHEETING - FOUR # 12 SMS (SHEET METAL SCREW) 2-INCH LONG

FLASHINGS:

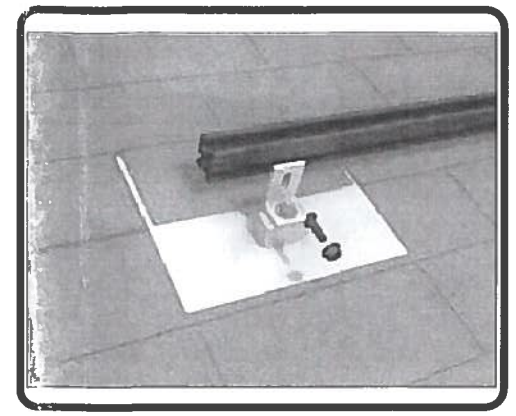
- FRAMING - SEE DRAWING & PHOTO IMAGES. ACCEPTABLE ALTERNATE FLASHINGS INCLUDE 4-INCH BY 8 INCH 28 GAUGE (MINIMUM) ALUMINUM SHEET.
- SHEETING ATTACHMENT IS SELF-FLASHING. SEE http://gezelmanpe.com/Solar3/PCM-OM%20PV%20STRUCTURAL.pdf

EOR (ENGINEER OF RECORD) PREFERS EMAIL COMMUNICATIONS: ALLEN@GEZELMANPE.COM

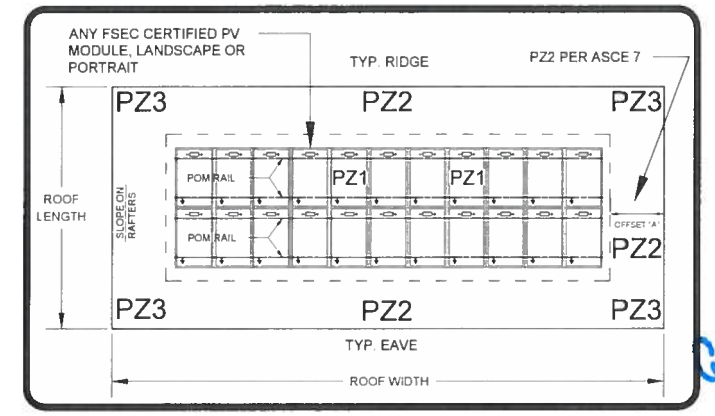
01 ENGINEERING NOTES
SCALE: NTS



02 SECTION VIEW
SCALE: N/A



03 TYPICAL RAIL & MOUNTING SYSTEM
SCALE: NTS



04 ROOF WIND PRESSURE ZONES PER FBC 2014 (5TH EDITION)
SCALE: NTS

APPLICABLE CODE:
FBC 2014 (5TH EDITION) FLORIDA BUILDING CODE

WIND:
SYSTEM ADEQUATE FOR VULT 200/VASD 154.9 MPH, RISK II, EXPOSURE D, MID ROOF HEIGHT 30-FT OR LESS.

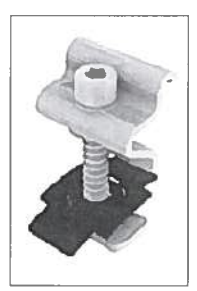
CONTRACTOR RESPONSIBLE TO VERIFY THE FIT OF THIS ARRAY PRIOR TO INSTALLATION. THE SOLAR MODULE ARRAY SHOWN HERE IS BASED ON THE FIELD DATA PROVIDED BY THE CONTRACTOR. CONTRACTOR SHALL CONTACT THE ENGINEER IF THE ARRAY MAY NOT FIT AS PROJECTED. SATELLITE IMAGERY SHOWN MAY NOT CORRECTLY INDICATE POTENTIAL CURRENT SHADING OF PROPERTY. CONTRACTOR RESPONSIBLE TO VERIFY SUN EXPOSURE AND SHADING OF INSTALLATION PRIOR TO INSTALLATION!

Load		Roof Slope 7 – 27 Degrees			Roof Slope 27 - 45 Degrees		
		Rail Spans – Zone 1, Exp B			Rail Spans – Zone 1, Exp B		
Snow (psf)	Wind (mph)	4'	6'	8'	4'	6'	8'
0	110	CR 48-S			CR 48-S		CR 80
	130			CR 80			
	150						
	170						
FLORIDA ROOF ATTACHMENT SPACING: ROOF = HGT < 30-FT & SLOPE < 30 DEGREES C-C = PZ1 NGT 6'; PZ2 NGT 4'; PZ3 NGT 2'							
10	110						
	130						
	150					CR 48	
	170						
20	110		CR 48				
	130						
	150						
	170						
30	110						
	130						
	150						
	170						
40	110						
	130						
	150						
	170						
50	110			KEY			KEY
	130			48-S			48-S
	150			48			48
	170			80			80

Note: Spans based on Exposure Category B. Consult CrossRail Engineering letters for detailed span charts and information.

05 EVEREST™ RAIL SELECTION CHART.
SCALE: N/A

UNIVERSAL MIDDLE CLAMP SET



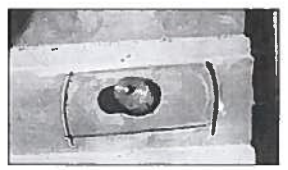
UNIVERSAL END CLAMP SET

EVEREST CLAMPS ARE UL 2703 LISTED AS PROVIDING ALL REQUIRED BONDING/GROUNDING OF PV MODULES TO EVEREST RAILS.

06 EVEREST™ CLAMPING SYSTEMS.
SCALE: N/A

SGL-PLY

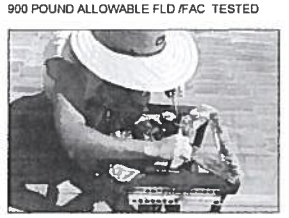
APPROVED SEALANT



READY FOR SEALANT

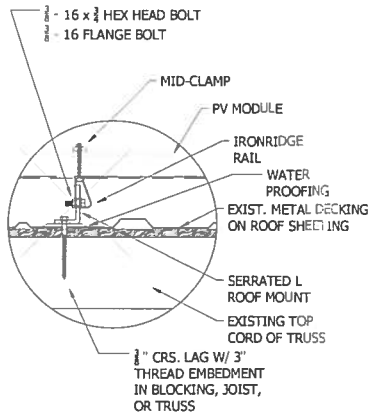
READY FOR PV RAIL

900 POUND ALLOWABLE FLD./FAC. TESTED

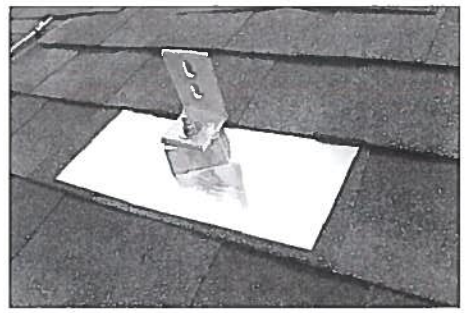


OEM FIELD/FACTORY TESTED

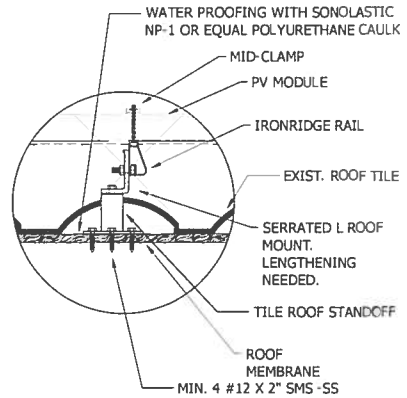
07 TILE & SINGLE-PLY SHEETING ATTACHMENT
SCALE: N/A



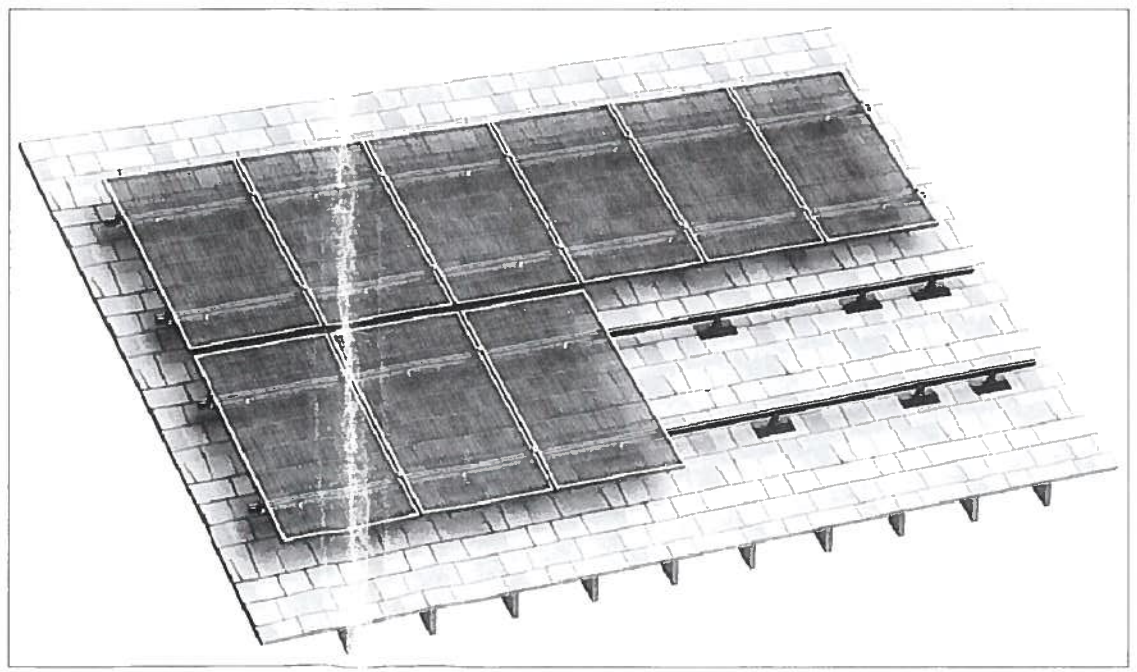
08 METAL ROOF ATTACHMENT
SCALE: NTS



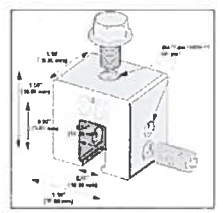
09 ROOF MOUNTING DETAIL COMPOSITION SHINGLE
FLASHING, RAIL, & SHEETING APPEARANCE MAY VARY
SCALE: NTS



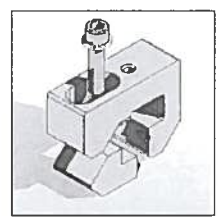
10 SHEETING ATTACHMENT
SCALE: NTS



11 SHINGLE FRAMING ATTACHMENT
SCALE: N/A



S-5! CLAMP



TRA CLAMP

ACE CLAMP

12 APPROVED STANDING SEAM CLAMPS
SCALE: N/A

SUPPLIER:

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