

CHECKLIST #0443 FOR THE APPROVAL OF: PHOTOVOLTAIC (PV) MODULES (Solar Panels)

- Basic Requirements Checklist.
- One set of the manufacturer's 'approval drawing' including:
 - a) PV modules installation diagram,
 - b) Method of installation which should match the testing installation,
 - c) Specifications and size of materials used, and
 - d) Anchorage method to the structure, according to test and calculations.
- Manufacturer's installation instruction manual.
- Design calculations for the structural frame supporting the photovoltaic modules and the anchorage of the frame to the roof system.
- One set of manufacturer's design drawings marked and verified by the testing laboratory.

The following current laboratory tests and test reports in compliance with protocol TAS 301.

- Testing data per Standard for Flat-Plate Photovoltaic Modules and Panels, UL 1703 / UL 61730.
- □ At least 3 PV Modules of each model must be tested for Uplift Load Test per **FBC**, **TAS202** with a safety factor of 2 (FBC 1523.4).
- At least 3 PV Modules of each model must be tested for Cyclic Load Test per FBC, TAS 203 (671 cycles positive and negative, FBC 1625.4).
- □ PV Module Fire testing per **ASTM E108** or **UL 790**.
- Wind Driven Rain Resistance testing per FBC, TAS 100(A). Each test mockup must include no less than two solar panels of the largest size being qualified, and each type of roof mount and penetration must be tested.
- Compliance with at least one of the following:

-TAS114 Appendix F - Susceptibility to Hail Damage for Roof System Assemblies, or

-The requirements in the Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings, **ANSI Z97.1-14**; or

-The requirements in the Code of Federal Regulations, **Title 16 CPSC Part 1201**– Safety Standard for Architectural Glazing Materials.



 Corrosion resistance per TAS114 Appendix E Section 2 (ASTM G85) Salt Spray for 1000 hrs. required on ferrous components only.

Notes:

- 1. Photovoltaic (PV) Modules must be registered by the Florida Solar Energy Center (FSEC).
- 2. PV Modules shall be tested, approved and installed with the same number, location and type of anchors & fasteners.
- 3. <u>Photovoltaic (PV) Modules shall be installed using an UL 2703 Certified rooftop mounting</u> system to maintain or exceed the roof's required fire listing.
- 4. Approval by this office is for structural performance only. Electrical circuitry, wiring and energy efficiency ratings are outside the scope of this approval.
- 5. If PV Module or fixture has plastic as a component, add the plastics checklist to these requirements.