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R W Building Consultants, Inc.

Consulting and Engineering Services for the Building Industry P.O. Box 230 Valrico, FL 33595 Phone 813.659.9197

Florida Board of Professional Engineers Certificate of Authorization No. 9813

Product Evaluation Report

Report No.: FL 7989.2 R4

Date: June 10, 2010

Product Category: Shutters

Product sub-category: Storm Panels

Product Name: ANCHOR Safe

24 Gauge Galvanized Steel

Storm Panel

Manufacturer: ASI Building Products

Corporate Office

4720 East Adamo Drive Tampa, FL 33605 (800)282-6624

Scope:

This is a Product Evaluation report issued by R W Building Consultants, Inc. and Lyndon F. Schmidt, P.E. (System ID # 1998) ASI Building Products based on Rule Chapter No. 9B-72.070, Method 1d of the State of Florida Product Approval, Department of Community Affairs-Florida Building Commission.

RW Building Consultants and Lyndon F. Schmidt, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

This product has been evaluated for use in locations adhering to the Florida Building Code (2007 Edition).

See Drawing No.: FL 7989.2 prepared by R W Building Consultants, Inc. and signed and sealed by Lyndon F. Schmidt, P.E. (PE # 43409) for specific use parameters.

Lyndon F. Schmidt, P.E. PE # 43409

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Limitations

- 1. Steel storm panels shall be ASTM A792 CS B steel, 0.024" thickness.
- 2. This product has been evaluated and is in compliance with the 2007 Florida Building Code (FBC) structural requirements excluding the "High Velocity Hurricane Zone" (HVHZ). When used in areas requiring wind borne debris protection, this product complies with Section 1609.1.2 of the 2007 FBC and does not require an impact resistant covering. This product meets missile level "D" and excludes Wind Zone 4 as defined in ASTM E1996.
- 3. Product markings shall be rolled into each panel with spacing in between marking no greater than 36".
- 4. Positive and negative design pressures to be used with these drawings shall be determined by others for specific jobs in accordance with the governing code.
- 5. The system detailed herein is generic and does not provide information for a specific site. If site conditions deviate from the conditions detailed herein, a licensed engineer or registered architect shall prepare site specific documents to be used in conjunction with this document.
- 6. Permit holder shall verify the adequacy of the existing structure to withstand new superimposed loads.
- 7. All aluminum extrusions shall be 6063-T6 aluminum allow, unless noted otherwise.
- 8. Top and bottom details shown may be interchanged as field conditions dictate. Panels may be mounted horizontally where applicable.
- 9. All bolts and washers shall be zinc coated steel, galvanized steel or stainless steel.
- 10. Anchors shall be installed in accordance with anchor manufacturer's recommendations. Embedment lengths and edge distances shall be as recommended by the anchor manufacturer but in no instance shall they be less than as shown on these approved drawings. Embedment and edge distances shall not include stucco or other finishes.

11. See Drawing # FL- 7989.2 for Design Pressure Ratings.

Lyndon F. Schmidt, P.E.

PE # 43409

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Supporting Documents

A Drawing

1. Drawing No. FL 7989.2 prepared by R W Building Consultants, Inc. (Florida Board of Professional Engineers Certificate of Authorization No. 9813), signed and sealed by Lyndon F. Schmidt, P.E.

B Tests

- 1. Testing per ASTM E1886-02 and ASTM E1996-02 as performed by Testing Evaluation Laboratories Inc., and reported in test report # TEL 06-0426-1, signed and sealed by Wendell W. Haney, P.E.
- 2. Testing per ASTM E 330-02 as performed by Testing Evaluation Laboratories Inc., and reported in test report # TEL 06-0426-2, signed and sealed by Wendell W. Haney, P.E.

C Calculations

- 1. Anchor calculations prepared and signed and sealed by Lyndon F. Schmidt, P.E.
- 2. The DP ratings of the longest and shortest panel spans are from tested specimens. The DP ratings of the intermediate panel spans are from comparative analysis calculations per accepted engineering practice, signed and sealed by Lyndon F. Schmidt, P.E.
- 3. The storm panel is considered non-porous (0.0 in 2 porosity) which is under the 10% threshold to be considered a porous shutter.

D Other

1. Certificate of Participation issued by Keystone Certifications, Inc., certifying that ASI Building Products is manufacturing products within a quality assurance program that complies with ISO/IEC 17020 and Guide 53.

Lyndon F. Schmidt, P.E. PE # 43409
June 10, 2010

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