

W. W. Schaefer Engineering & Consulting, P.A. (CA #6809)

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ENGINEER'S EVALUATION REPORT #WWS-381

Prepared for:

Sierra Pacific Windows (Previously Hurd Windows & Doors)
575 S. Whelen Ave.
Medford, WI 54451
Phone: 800-433-4873

Prepared by:

Warren W. Schaefer, P.E.
Florida Professional Engineer #44135

Manufacturer: Sierra Pacific Windows

Product Category: Windows

Evaluation Method: 1-D (Engineer's evaluation)

Product model & name: Feel Safe Aluminum Clad Wood Impact Awning Windows

Documents that must accompany this report:

1. W. W. Schaefer Engineering & Consulting drawing No. 1983

Window size & configuration restrictions and assembly requirements:

See drawing No. 1983 for size & configuration restrictions. Unless noted otherwise, window assembly is the full responsibility of each the manufacturer and their applicable quality assurance and shall be quality assured in accordance with the here-in referenced test reports.

Maximum allowable design pressure:

+65/-70 psf

Installation requirements:

See drawing No. 1983

Code compliance:

Code section(s) considered with this evaluation:

FBC Chapters 17 & 24

Wood Coatings:

All wood members shall be of an approved durable species or be treated in an approved method with an approved preservative per applicable codes and standards

Glass:

All glass meets the current ASTM E1300 standard.

Mullions:

Mullion conditions stated in this approval have been tested in accordance with TAS-201, 202 & 203 and meet the requirements of FBC.

Test Standards applicable to the testing of these windows:
TAS-201, 202 & 203

Test Laboratory: Stork Twin City Testing Corporation (Now known as Element Material Technology), Architectural Testing Inc. (Now Intertek) & Element Materials Technology

Test Report Numbers: Stork No. 180-7795.2 & Element No's ESP032600P-2519.1, ESP032603P-2520.1, ESP026946P-2233 & ESP032641P-2523.1

Note 1: The Stork report No. 180-7795.2 reflects the original window with its original sash profiles. Element report No. ESP032600P-2519.1 is for the same windows with current sash profiles. The remaining Element reports are only for justification of alternate glass make-ups with the current sash profiles.

Note 2: All HVHZ test reports have been signed & sealed by a Florida PE.

General report notes & system limitations:

1. All size & installation conditions shown in this report and the referenced drawing No. 1983 are based off the referenced test reports and/or engineering analysis in accordance with the Florida Building Code.
2. Windows shall be constructed in accordance with the descriptions in this report, and the manufacturer's state approved quality assurance entity specifications.
3. This product is approved for use in & outside of the High Velocity Hurricane Zones (HVHZ).
4. Job required design wind pressure shall be calculated in accordance with the Florida Building Code Chapter 16 and ASCE 7 Minimum Design Loads for Buildings and Other Structures (0.85 directionality factor may apply per the current ASCE 7 standard).
5. These windows are both small & large missile impact rated for use in wind zone 4 & missile level "D" locations and need not be shuttered.
6. Any change to this product's components and/or assembly without the knowledge & consent of W. W. Schaefer Engineering & Consulting, P.A. and Warren W. Schaefer, P.E. shall void this evaluation/certification and thus the products Florida approval.

Quality Assurance Entity: Window & Door Manufacturers Association (WDMA)

Disclaimers:

1. The parts, components, assembly & performance of this product, and liability there-of are the sole responsibility of the manufacturer and their quality assurance and shall be as tested unless stated otherwise in this evaluation report or the uploaded approval drawing No. 1983. Neither W. W. Schaefer Engineering & Consulting, P.A. nor Warren W. Schaefer, P.E. claim any responsibility for said parts, components, assembly or performance and shall be deemed responsible only for the evaluation of the product as stated here-in.

Warren W. Schaefer, P.E.
Florida P.E. #44135

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