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PRODUCT EVALUATION REPORT

REPORT NO.: 23-0721.30

DATE: July 21, 2023

PRODUCT CATEGORY: Hurricane Shutters

PRODUCT SUB-CATEGORY: Colonial Shutters

PRODUCT NAME: ASSA/BERTHA COLONIAL SHUTTER (WITH CLIPS OR STORM BARS)

SUBMITTED BY: American Shutter Systems Association, Inc.
4268 Westroads Drive, West Palm Beach,
Florida 33407

1. PURPOSE OF EVALUATION:

This is a Product Evaluation Report issued by **Walter A. Tillit, Jr., P.E.** (System ID # 1906) to the **American Shutter Systems Association, Inc. (A.S.S.A.)**, based on Rule Chapter No. G1G20-3, Method 1d of Florida Department of Business and Professional Regulation.

This product is being issued an Evaluation Report as described herein, and has been verified for compliance in accordance with the 2023 8th Edition of the Florida Building Code, and to verify that the product is for the purpose intended at least equivalent to that required by the Code.

This Product Evaluation Report shall be subject to review and revision in case of a Building Code Change that may affect its limitations and conditions.

2. EVIDENCE SUBMITTED:

2.1. PRODUCT EVALUATION DOCUMENT (P.E.D.):

Drawing No. 23-131, titled "**ASSA/BERTHA COLONIAL SHUTTER (WITH CLIPS OR STORM BARS)**", sheets 10 thru 33 of 33, prepared by Tilteco, Inc.; signed and sealed by Walter A. Tillit, Jr., P.E.; dated 7/21/2023 This drawing is an integral part of this Evaluation Report.

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2.2. TEST REPORTS:

For Colonial with clips: large missile impact loading under ASTM E-1996 Standard and Protocols TAS 201, 203 (reversed blade), as per section 1609.1.2 of the Florida Building Code. Uniform Static loads in accordance with Protocol TAS 202 (reversed blade). Test reports prepared by American Testing Lab of South Florida, Reports No. 0624.01-98R, dated August 31, 1999, signed and sealed by William Mehner, P.E. and Gerard B. Sullivan, P.E.; No. 1005.01-00, dated December 19, 2000, signed and sealed by William Mehner, P.E. and 0309.01-04, dated April 7, 2004, signed and sealed by William Mehner, P.E. and Henry Hattem, P.E.

Tensile Test as per QC Metallurgical, Inc. Report 4DM-348, dated April 15, 2004, signed and sealed by Frank Grate, P.E.

For Colonial with storm bars: large missile impact and fatigue loading under Protocols TAS 201 & 203, as per section 1609.1.2 of the Florida Building Code. Uniform Static loads in accordance with TAS 202 Protocol. Test reports prepared by American Testing Lab of South Florida, Report No. 0926.01-07, dated October 10, 2007 signed and sealed by William Mehner, P.E.

2.3. STRUCTURAL ENGINEERING CALCULATIONS:

On ASSA/Bertha Colonial Shutter (with clips or storm bars) for maximum shutter span vs. design wind load, as well as maximum anchor spacing vs. design wind load and shutter span based on rational and comparative analysis, and in accordance with sections 1604 and 2002 of the Florida Building Code. Calculations prepared by Tilteco, Inc., dated September 12, 2005 (amended 09/17/08), signed and sealed by Walter A. Tillit, Jr., P.E., and on August 10, 2017.

3. MISSILE IMPACT RESISTANCE:

For Colonial with clips: Large missile impact under section 1609.1.2 of the Florida Building Code, as per ASTM E-1996 Standard and Protocol TAS 201 (reversed blade).

For Colonial with storm bars: Large missile impact under section 1609.1.2 of the Florida Building Code, as per Protocol TAS 201.

4. WIND LOADS RESISTANCE:

ASSA/Bertha Colonial Shutter with clips or storm bars has been verified to sustain wind pressures. Maximum Shutter Span for Colonial with clips shall be as indicated on sheets 13 and 14 of 33, of Product Evaluation Document (P.E.D.), drawing No. **23-131**. Maximum Anchor Spacing shall be as indicated on sheets 14 thru 21 of 33, of Product


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STRUCTURAL ENGINEER

Evaluation Document (P.E.D.), drawing No. **23-131**. ASSA/Bertha Colonial Shutter with clips has been verified for code compliance to work as a porous (perforated blades) or a non-porous (solid blades) wind load resistant storm shutter assembly, as per ASTM E-1996 Standard. Maximum shutter span for Colonial with storm bars shall be as indicated on sheets 22 and 28 of Product Evaluation Document (P.E.D.), drawing No. **23-131**. Anchor at hinges shall be as indicated on sheets 23 and 29 of Product Evaluation Document (P.E.D.), drawing No. **23-131**.

5. INSTALLATION:

Shall be performed strictly in accordance with details indicated on sheets 13 thru 33 of 33, of Product Evaluation Document (P.E.D.), drawing No. **23-131**. Minimum separation to glass of colonial with clips shall be as indicated on sheet 13 and 14 of 33, of Product Evaluation Document (P.E.D.), drawing No. **23-131**. Colonial with storm bars shall be performed strictly in accordance with details indicated on sheets 22 thru 33 of 33 of Product Evaluation Document (P.E.D.), drawing # **23-131**. Minimum separation to glass shall be as indicated on sheet 23 of 33.

6. MATERIAL CHARACTERISTICS AND SPECIFICATIONS:

Shall be strictly in accordance with General Notes and Components indicated on sheets 11 and 12 of 33 of Product Evaluation Document (P.E.D.), drawing No. **23-131**. Anchor specifications for Colonial with clips shall be as indicated on sheets 10, 12, and 16 thru 21 of 33, of Product Evaluation Document (P.E.D.), drawing No. **23-131**. Anchor specifications for Colonial with storm bars shall be as indicated on sheets 10 and 23 thru 33 of 33, of Product Evaluation Document (P.E.D.), drawing No. **23-131**.

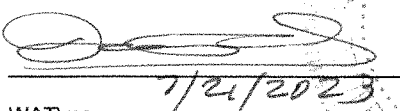
7. LIMITATIONS AND CONDITIONS OF USE:

7.1. Shall be strictly in compliance with General Notes No. 1,7, 8, 9, 10, 11 and 12, indicated on sheet 10 of 33, of Product Evaluation Document (P.E.D.), drawing No. **23-131** prepared by Tilteco, Inc. and signed and sealed by Walter A. Tillit, Jr., P.E.

7.2. Product **shall not** be installed within HIGH VELOCITY HURRICANE ZONES as defined on section 202 of the Florida Building Code.

7.3. Product shall only be installed into poured concrete, concrete block, and wood frame structures.

Product Evaluation Report prepared by Walter A. Tillit, Jr., P.E. (Florida License No. 44167), President of Tilteco, Inc. (Florida CA-0006719).



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