

WALTER A. TILLIT, JR., P.E.

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PRODUCT EVALUATION REPORT

REPORT NO.: 23-0809.08

DATE: August 9, 2023

PRODUCT CATEGORY: Hurricane Shutters

PRODUCT SUB-CATEGORY: Storm Panels

PRODUCT NAME: 0.050" BERTHA ALUMINUM STORM PANEL
(2.25" DEEP)

MANUFACTURER: Eastern Metal Supply, 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 **Eastern Metal Supply, Inc.**, Rule Chapter No. 61G20-3, Method 1D of the Florida Department of Business and Professional Regulation.

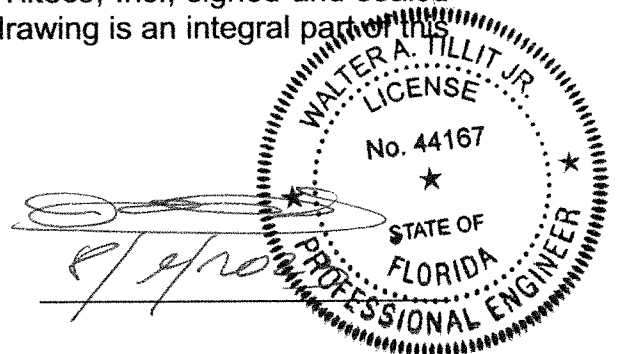
This product is being issued an Evaluation Report as described herein, and has been verified for compliance in accordance with the 2023 8th Edition of the Florida Building Code, and to verify that the product is for the purpose intended at least equivalent to that required by the Code.

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.
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2. EVIDENCE SUBMITTED:

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

Drawing No. 23-166, titled "**0.050" BERTHA ALUMINUM STORM PANEL (2.25 DEEP)**", sheets 1, 1A thru 14 of 14 prepared by Tilteco, Inc.; signed and sealed by **Walter A. Tillit, Jr., P.E.**; dated 8/9/2023. This drawing is an integral part of this Evaluation Report.



2.2. TEST REPORTS:

Large missile impact load tests were performed under ASTM E-1996 comparable standard as per section 1609.1.2 of the Florida Building Code. Uniform static loads as per section 1709.5.2, per ASTM E-330. Test reports prepared by American Testing Lab of South Report No. 0121.01-98R, dated April 28, 1999, signed by Tony Sivore and signed and sealed by William R. Mehner, P.E., Report No. 0329.01-00, dated May 26, 2000, signed and sealed by William R. Mehner, P.E. and Henry Hattem, P.E., Report No. 0525.01-00, dated April 26, 2000, signed and sealed by William R. Mehner, P.E., Report No. 0512.01-03, dated May 22, 2003, signed and sealed by William R. Mehner, P.E., and Report No. 0617.02-04, dated May 17, 2005, signed and sealed by Henry Hattem, P.E.

Test Report #0221.01-01, per TAS 201, 202 and 203, dated 05/02/01, signed and sealed by William R. Mehner, P.E., and Henry Hattem, P.E.

Tensile test report No. 5EM-499 by QC Metallurgical, Inc., dated June 1, 2005, signed and sealed by Frank Grate, P.E.

Mill certificates from Easco Aluminum (extruders) certify aluminum alloys and temper for components.

2.3. STRUCTURAL ENGINEERING CALCULATIONS:

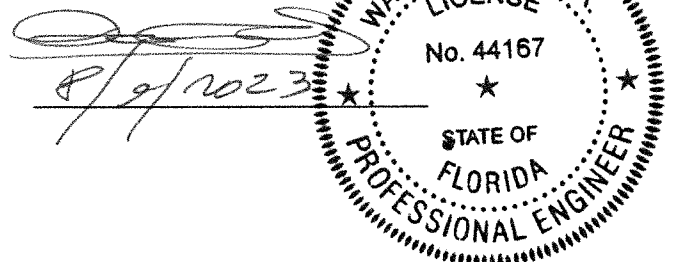
On 0.050" Bertha Aluminum Storm Panel (2.25" Deep) for maximum panel length vs. design wind load, as well as maximum anchor spacing vs. design wind load and panel length based on rational and comparative analysis, and in accordance with section 1604 of the Florida Building Code. Calculations prepared by Tilteco, Inc., dated 09/07/05, signed and sealed by Walter A. Tillit, Jr., P.E.

3. MISSILE IMPACT RESISTANCE:

Large missile impact under section 1609.1.2 of the Florida Building Code, as per ASTM E-1996 Comparable Standard.

4. WIND LOADS RESISTANCE:

0.050" Bertha Aluminum Storm Panel (2.25" Deep) has been verified to sustain wind pressures. Maximum panel length shall be as indicated on sheet 5 of Product Evaluation Document (P.E.D.), **drawing No. 23-166** Maximum Anchor Spacing shall be as indicated on sheets 6, 7, 8, 9 and 10, of Product Evaluation Document (P.E.D.), **drawing No. 23-166**. 0.050" Bertha Aluminum Storm Panel (2.25" Deep) has been verified for code compliance to work as a non-porous storm shutter assembly, as per SSTD 12-99 Standards. Provisions for interiorly removable panels is indicated on sheets 8, 9, 10, 13 and 14 of Product Evaluation Document (P.E.D.), **drawing No. 23-166**



5. INSTALLATION:

Installation shall be performed strictly in accordance with the details indicated on sheets 2, 3, 4, 5, 8, 9 and 11 thru 14, of Product Evaluation Document (P.E.D.), **drawing No. 23-166**. Minimum separation to glass shall be as indicated on sheets 3, 4, 8 and 9, of Product Evaluation Document (P.E.D.), **drawing No. 23-166**

6. MATERIAL CHARACTERISTICS AND SPECIFICATIONS:

Shall be strictly in accordance with General Notes and Components indicated on sheets 1, 1A, of Product Evaluation Document (P.E.D.), **drawing No. 23-166**

Anchor specifications shall be as indicated on sheets 6, 7, 8, 9 and 10, of Product Evaluation Document (P.E.D.), **drawing No.23-166**

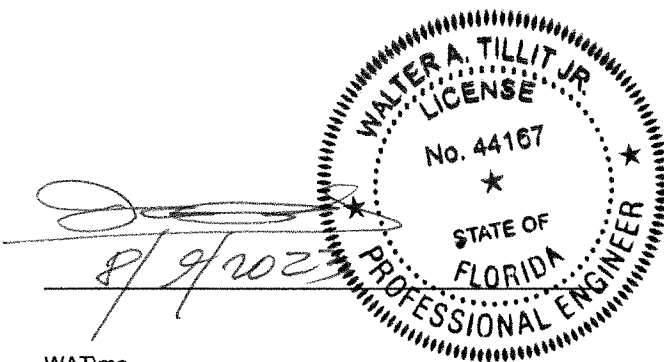
7. LIMITATIONS AND CONDITIONS OF USE:

7.1. Shall be strictly in compliance with General Notes No. 8, 9, 10 and 11, indicated on sheet 1, of Product Evaluation Document (P.E.D.), **drawing No. 23-166** 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).

A handwritten signature, likely of Walter A. Tillit, Jr., is written over a circular professional engineer seal. The seal is for the State of Florida, License No. 44167, and identifies the holder as a Professional Engineer. The signature is written in dark ink and appears to be 'WAT' followed by a stylized flourish.

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D:\TILTECO ADMIN RECORDS \ P. E. REPORT.23 \ EASTERN METAL SUPPLY, INC. \ 0.050" BERTHA ALUMINUM STORM PANEL (2.25" DEEP) \ DRWG # 23-1662 \ REPORT # 23-0809.08