

**ENGINEERING EXPRESS® EXPERT
PRODUCT EVALUATION REPORT**

October 18, 2017

Application Number: FL13271.1-R4
EX Project Number: 17-4890Product Manufacturer: Eastern Metal Supply
Manufacturer Address: 4268 Westroads Dr.
West Palm Beach, FL 33407Product Name & Description: Bertha AstroGuard
Bertha AstroGuard – Wind Abatement System**Scope of Evaluation:**

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1(d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with the Florida Building Code Sixth Edition (2017) and is, for the purpose intended, at least equivalent to that required by the Code. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or revisions.

Substantiating Data:**• PRODUCT EVALUATION DOCUMENTS**

EX drawing #17-4890 titled "Bertha AstroGuard – Wind Abatement System", sheets 1-12, by Engineering Express, signed & sealed by Frank L. Bennardo, P.E. is an integral part of this Evaluation Report.

• TEST REPORTS

Uniform static structural performance has been tested in accordance with TAS 202-94 test standards per test report(s) #10-2522 by Fenestration Testing Laboratory, Inc. (FTL). Signed and Sealed by Marlin Brinson, P.E.

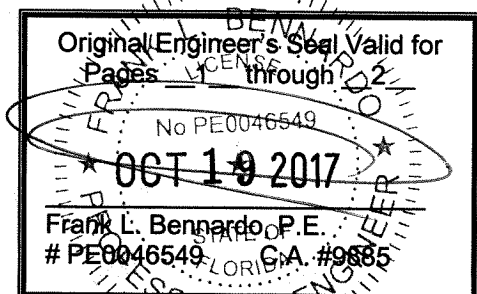
Large missile impact resistance and cyclic loading performance have been tested in accordance with TAS 201-94 & TAS 203-94 test standards per test report(s) #10-2522 by Fenestration Testing Laboratory, Inc. (FTL). Signed and Sealed by Marlin Brinson, P.E.

• STRUCTURAL ENGINEERING CALCULATIONS

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

1. Maximum Allowable Spans
2. Minimum Glass Separation
3. Anchor Spacing
4. Anchor Capacity

No 33% increase in allowable stress has been used in the design of this product.



Separation from glazing is required for use within essential facilities, ASTM wind zone 4 and the high velocity hurricane zone (HVHZ).

Impact Resistance:

Large Missile Impact Resistance has been demonstrated as evidenced in previously listed test reports, and is accounted for in the engineering design of this product.

Wind Load Resistance

This product has been designed to resist wind loads as indicated in the span schedule(s) on the Product Evaluation Document (i.e. engineering drawing).

Installation

The product listed above shall be installed in strict compliance with the Product Evaluation Document (i.e. engineering drawing), along with all components noted therein.

The product components shall be of the material specified in the Product Evaluation Document (i.e. engineering drawing).

Limitations & Conditions of Use:

Use of this product shall be in strict accordance with the Product Evaluation Documents (the engineering drawing) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in this product's respective anchor schedule. Host structure conditions which are not accounted for in this product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times.

This product has been designed for use within and outside of the High Velocity Hurricane Zone (HVHZ).