

L. Roberto Lomas P.E.

1432 Woodford Rd.  
Lewisville, NC 27023  
336-945-9695

## Engineering Evaluation Report

Report No.: 510257C

**Manufacturer:** USA Shutter Company, LLC  
1450 Rail Head Blvd  
Naples, FL 34110

**Product Line:** Aluminum Maestrosshield Roll-up Shutter in a box with and without storm bars

**Compliance:**

The above mentioned product has been evaluated for compliance with the requirements of the Florida Department of Community Affairs for Statewide Acceptance per Rule 9N-3.005 method 1(d). The product listed herein complies with requirements of the Florida Building Code.

**Product description:**

**Curtain:** Curtain consists of single shutter slats constructed of powder coated 6063-T5 aluminum .552" wide x 2.6" high x full length with a wall thickness of .042" minimum. Slats are interlocked together with no mechanical fasteners utilized. Slats are capped at each end with a vinyl cap.

**Side Rails:** Rails are constructed of 6063-T5 Powder coated extruded aluminum 1.189" wide x 3.150" high x full length. There are two types of side rails, side rails for regular slats and side rails for slats with end retention system.

**End retention system:** TPlastic guides installed at each slat end made out of nylon and attached to slots with two 3/16" rivets.

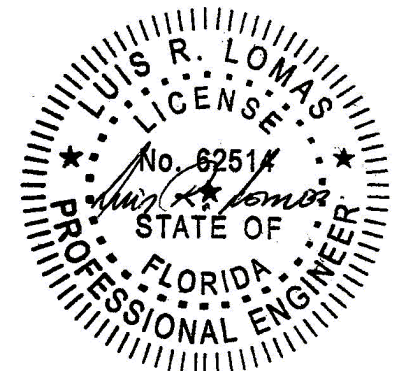
**Operating Mechanism:** Tone 3 3/8" diameter aluminum shaft with ball bearing gear at the right side and aluminum channel on the left side.

**Storm bars:** Consist of tubular 6063-T5 aluminum 2.0" wide x 4.0" high x .125" thick and 2.0" wide x 6.0" high x .125" thick

**Headers:** Consist of tubular 6063-T5 aluminum 2.0" wide x 4.0" high x .125" thick or two 2.0" wide x 6.0" high x .3125" thick channels attached together using #12 TEK screws.

**Supporting Technical Documentation:**

1. Approval document: drawing number 08-00174 revision C, titled Aluminum Maestrosshield Shutter-In-a-Box, prepared, signed and sealed by Luis Roberto Lomas P.E
2. Test reports:
  - a. Report No.: 0432-0804-06 signed and sealed by Vinu J. Abraham P.E.  
Hurricane Test Laboratory, LLC  
Aluminum Maestrosshield Roll-up Shutter in a box 54"x68"  
TAS 201 and ASTM E 1886-02/E 1996-02, Large Missile Impact test, Level D, Wind Zone 4  
TAS 202 and ASTM E 330-02, Uniforms Static Load Test, ±120 psf design pressure  
TAS203 and ASTM E 1886-02/E 1996-02, Cyclic Load Test, ±120 psf design pressure
  - b. Report No.: CTLA-1606W signed and sealed by Ramesh Patel P.E.  
Certified Testing Laboratories  
88 3/8"x84" Aluminum Maestrosshield Roll-up Shutter in a box without storm bars  
ASTM E 1886-02/E 1996-02, Large Missile Impact test, Level D, Wind Zone 4  
ASTM E 330-02, Uniforms Static Load Test, ±30 psf design pressure  
ASTM E 1886-02/E 1996-02, Cyclic Load Test, ±30 psf design pressure



**Supporting Technical Documentation (continued):**

- c. Report No.: CTLA-1609W signed and sealed by Ramesh Patel P.E.  
Certified Testing Laboratories  
88 3/8"x84" Aluminum Maestrosshield Roll-up Shutter in a box with storm bars  
TAS 201, Large Missile Impact test, Level D, Wind Zone 4  
TAS 202, Uniforms Static Load Test,  $\pm 77$  psf design pressure  
TAS203, Cyclic Load Test,  $\pm 77$  psf design pressure
  - d. Report No.: FTL 5278 signed by Manny Sanchez, FTL CEO.  
Fenestration Testing Laboratories, Inc.  
123"x95 1/2" Aluminum Maestrosshield Roll-up Shutter in a box with end retention system  
TAS 201 and ASTM E 1886-05/E 1996-05, Large Missile Impact test, Level D, Wind Zone 4  
TAS 202 and ASTM E 330-02, Uniforms Static Load Test,  $\pm 80$  psf design pressure  
TAS203 and ASTM E 1886-05/E 1996-05, Cyclic Load Test,  $\pm 80$  psf design pressure  
  
262 3/4"x120 3/8" Aluminum Maestrosshield Roll-up Shutter in a box with end retention system; with  
and without storm bars  
TAS 201 and ASTM E 1886-05/E 1996-05, Large Missile Impact test, Level D, Wind Zone 4  
TAS 202 and ASTM E 330-02, Uniforms Static Load Test,  $\pm 50$  psf design pressure  
TAS203 and ASTM E 1886-05/E 1996-05, Cyclic Load Test,  $\pm 50$  psf design pressure
3. Comparative analysis, report No.: 510039C and 510241, prepared, signed and sealed by Luis Roberto Lomas P.E
  4. Anchor calculations, report No.: 510065A, 510066 and 510300, prepared, signed and sealed by Luis Roberto Lomas P.E
  5. Storm bar analysis, report No.: 510067, 510239 and 510240 prepared, signed and sealed by Luis Roberto Lomas P.E
  6. Header bar anchor calculations, report No.: 510068, prepared, signed and sealed by Luis Roberto Lomas P.E

**Limitations and Conditions of use:**

- Maximum design pressure: Refer to installation instructions.
- Slats may be installed with either profile facing the exterior.
- For end retention system requirements refer to approval document.
- This product is rated to be used in the HVHZ.
- This product is impact resistant and does not require impact protection in wind borne debris regions.

**Installation:**

Units must be installed in accordance with installation drawing 08-00174 revision C.

**Certification of Independence:**

Please note that I don't have nor will acquire a financial interest in any company manufacturing or distributing the product(s) for which this report is being issued. Also, I don't have nor will acquire a financial interest in any other entity involved in the approval process of the listed product(s).

