



MCY ENGINEERING, INC.
GLAZING CONSULTANT

12781 Miramar Pkwy. Ste. 301
Miramar, FL. 33027
P: 305 271-0117

PRODUCT APPROVAL EVALUATION REPORT

<u>Product Manufacturer:</u> N.R. Architectural Products, Inc. 4348 Westroads Dr. Riviera Beach, FL 33407	<u>Product Name/Model & Description:</u> Series 8000 High Performance Unitized Curtain Wall System (L.M.I. & S.M.I.) (HVHZ) Curtain Wall – large & small missile impact
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Scope: This product has been evaluated by the below-signed Florida Professional Engineer for compliance with the Code noted herein and is, for the purpose intended, at least equivalent to that required by the Code, in accordance with section 553.842 F.S. & chapter 61G20-3.005 F.A.C. Re-evaluation of this product shall be required following applicable Code modifications or revisions.

Code: 7th Edition Florida Building Code (2020)/ 8th Edition Florida Building Code (2023), inclusive of all Supplements effective as of this report date.

Compliance Method: 61G20-3.005 (1)(d) – Evaluation Report from a licensed Professional Engineer

Product Description: Product Approval Drawing #AD17-32, AD16-09, AD16-10, prepared by MCY Engineering, signed and sealed by Yiping Wang, P.E., is an integral part of this Evaluation Report.

Limitations & Conditions of Use:

- This product has been evaluated for use **inside and outside of the HVHZ** (High-Velocity Hurricane Zone)
- Impact Resistance: **Large and Small Missile Impact**
- Refer to Product Approval Drawing noted above for:
 - o Maximum allowable wind loads at the related maximum allowable size(s).
 - o Other load limitations applicable to the product, if any.
 - o Overall dimensions and material/grade of main product components, accessories, etc.
 - o Illustrated diagrams of the attachment of the product to the structure.
 - o Anchor type(s), size(s), substrate(s), embedment, edge distance, and spacing/locations.



Test Reports:

Mandatory Tests (Tested in accordance with Florida Building Code Tests Protocols)

Test Lab	Report Number	Test Report Date	Test Standard & Description
Hurricane Test Laboratory, LLC - Riviera Beach, FL	<i>HTL-0242-0306-10, signed and sealed by Vinu J. Abraham, PE, FL #53280</i>	05/21/10	TAS 201 (large & small missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading) ASTM E283 (air infiltration test) ASTM E331 (water infiltration test) ASTM E330 (static load test) ASTM E1886 (cyclic wind pressure loading) ASTM E1996 (large & small missile impact)
Hurricane Test Laboratory, LLC - Riviera Beach, FL	<i>HTL-0242-0611-10, signed and sealed by Vinu J. Abraham, PE, FL #53280</i>	07/23/10	TAS 201 (large missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading) ASTM E330 (static load test)
Hurricane Test Laboratory, LLC - Riviera Beach, FL	<i>HTL-0242-0106-10, signed and sealed by Vinu J. Abraham, PE, FL #53280</i>	03/25/10	TAS 201 (large missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading) ASTM E330 (static load test) ASTM E283 (air infiltration test) ASTM E331 (water infiltration test) ASTM E1886 (cyclic wind pressure loading) ASTM E1996 (large missile impact) AAMA 501.1 (dynamic water infiltration)
Architectural Testing, Inc. - West Palm Beach, FL	<i>ATI-D8993.01-450-18, signed and sealed by Shawn G. Collins, PE FL #70655</i>	09/26/14	TAS 201 (large & small missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading)
Architectural Testing, Inc. - West Palm Beach, FL	<i>ATI-B5204.01-450-18, signed and sealed by Vinu J. Abraham, PE FL #53280</i>	04/09/12	TAS 201 (large missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading)



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Architectural Testing, Inc.- West Palm Beach, FL	ATI-E2122.01-450-18, signed and sealed by Shawn G. Collins, PE FL #53280	02/16/15	TAS 201 (large & small missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading)
Blackwater Testing, Inc.-West Palm Beach, FL	BT-NR-15-001, signed and sealed by Yamil Gerardo Kuri, PE, FL #44726	01/06/16	TAS 201 (large missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading) ASTM E330 (static load test) ASTM E283 (air infiltration test) ASTM E331 (water infiltration test)
Intertek Testing Services Ltd., Shanghai China	170503003SHF-BP-1, signed and sealed by Vinu J Abraham PE, FL#53820	10/18/17	TAS 201 (large & small missile impact) TAS 202 (uniform static test) TAS 203 (cyclic wind pressure loading) ASTM E283 (air infiltration test) ASTM E331 (water infiltration test)
Black water technical services, INC	BT-NRG-22-001A signed and sealed by Michael D caldwell PE, FL#53820	10/3/2022	24 hour flood test at a height of water of 7'0" on curtain wall

Engineering Analysis: The following engineering analyses and/or calculations have been performed:

- No comparative analysis has been performed for conditions other than those tested.
- No rational analysis has been performed.
- Anchor calculations are based on manufacturer's published anchor capacity, anchor Notice of Acceptance by Miami Dade County.



August 17th, 2023