JB&B Engineering Consultants, LLC

5203 Silver Charm Terrace Wesley Chapel, FL 33544 Phone: 813-545-1323

Email: TSullivaneng@gmail.com
Florida Certificate of Authorization #30903

Product Evaluation Report for

Euro-LS100 Lift and Slide Sliding Glass Door (HVHZ)

1.0 Product Manufacturer: Euro-Wall Systems, LLC

24100 Tiseo Blvd. Pt. Charlotte, FL 33980

2.0 Code edition: Florida Building Code 5th edition (2014)-Building Volume

Florida Building Code 5th edition (2014)-Residential Volume

3.0 Evaluation Method: Engineering Evaluation (method 1D) in accordance with 61G20-3 F.A.C.

4.0 Product Category: Exterior Doors

4.1 Product Sub-Category: Sliding Exterior Door Assemblies

5.0 Product Manufacturer: Euro-Wall Systems, LLC

24100 Tiseo Blvd. Pt. Charlotte, FL 33980

6.0 Product Description:

- 6.1 Exterior Frame-Thermally broken (polyamide iso-strut) extruded aluminum (6063-T6)
- 6.2 Panels-Extruded Aluminum, steel reinforced, rails and stiles
- 6.3 EPDM Glazing Gasket-conforms to ASTM C864-05
- 6.4 Glazing- Laminated Insulated Glass Unit consisting of

Glass Type 1--1"Overall IGU (3/16"F.T-3/8" A.S.-3/16" H.S.-.090" SG-3/16" H.S.)

- 6.5 Glazing Method-Dry Glazed with a continuous heal-bead of Dow Corning 995
- 6.6 Drainage- Euro-Drain (injection molded plastic drainage system at each interlock)
- 6.7 Multi-Point Locking System- at interlock stiles and jamb stiles consisting of pauls and keepers spaced at a nominal 17.5" o.c.

7.0 Code Testing Performance Requirements (HVHZ)

- 7.1 TAS 201-94 Impact Test Procedures
- 7.2 TAS 202-94 Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components Using Uniform Static Air Pressure
- 7.3 TAS 203-94 Criteria for Testing Products subject to Cyclic Wind Pressure Loading

8.0 Performance Test Results:

- 8.1 TAS 201-94, TAS 202-94 and TAS 203-94 test results on Architectural Testing, Inc. Report Number E1099.01-401-18 tested at 2250 Massaro Blvd. Tampa, Florida 33619 signed and sealed by Justin P. McDonald, P.E.
- 8.2 Design Pressure Rating (+50.0/-50.0) psf
- 8.3 Impact Resistance-Large Missile
- 8.4 Water Infiltration Performance-7.5 psf
- 8.5 Air Infiltration @ 1.57 psf= 0.16 cfm/ft^2

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8.0 Performance Test Results (cont.):

8.6 Air Infiltration @ 6.24 psf= 0.41 cfm/ft^2

8.7 ASTM C864-05, report number 75308, prepared by Hexpol compounding

8.1 Performance Test Results:

8.1.1 TAS 201-94, TAS 202-94 and TAS 203-94 test results on Blackwater Testing, Inc. Report Number BT-EUW-16-002B tested at 7341 Westport Place, Ste. 1A, signed and sealed by Constatin Bortes, P.E. on November 18th, 2016

- 8.1.2 Design Pressure Rating (+75.0/-75.0) psf and (+60.0/-60.0) psf
- 8.1.3 Impact Resistance-Large Missile
- 8.1.4 Water Infiltration Performance-9.0 psf and 11.25 psf
- 8.1.5 Air Infiltration @ 6.24 psf= 0.059 cfm/ft^2

9.0 Engineering Analysis and Evaluation:

Design Pressure Table (psf)												
Panel Width (Inches)												
		30	32	36	40	44	48	50	56	60	66	72
(Se	72	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	60.0	60.0
	78	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	60.0	60.0	60.0
	84	75.0	75.0	75.0	75.0	75.0	75.0	75.0	60.0	60.0	60.0	60.0
ج	90	75.0	75.0	75.0	75.0	75.0	75.0	75.0	60.0	60.0	60.0	60.0
Height (Inches)	96	75.0	75.0	75.0	75.0	75.0	60.0	60.0	60.0	60.0	60.0	60.0
	102	75.0	75.0	74.6	67.9	62.6	60.0	60.0	60.0	60.0	60.0	
	108	69.9	65.8	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	
He	114	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
<u>-</u>	120	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
Panel	126	60.0	60.0	60.0	60.0	60.0	59.2	57.1	51.8			
۵	132	60.0	59.5	60.0	57.7	52.9	48.9	47.1				
	138	60.0	59.5	53.2	48.2	44.1	40.7	39.3				
	144	53.3	50.1	44.8	40.5	37.1	34.2	33.0				
	150	45.2	42.5	37.9	34.3	31.4	29.0					
	156	38.6	36.3	32.4	29.3	26.8						
	162	33.2	31.1	27.8	25.1	23.0	L				·	

Note: Applies to both inswing and outswing configurations, segmented and radius installations

- 9.1 Installation Anchorage Analysis signed and sealed by Thomas D. Sullivan, P.E. for multiple substrates 9.2 Comparative analysis for alternate sizes within the tested square footage as allowed by the Florida Building Code, signed/sealed by Thomas D. Sullivan, P.E.
 - 9.3 Engineering Evaluation report signed and sealed by Thomas D. Sullivan, P.E. for conformance to the Florida Building Code 5th edition (2014)

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10.0 Installation Instructions:

10.1 Installation instructions titled Euro-LS100 HVHZ Installation Instructions signed and sealed by Thomas D. Sullivan, P.E. on 1/6/2017

11.0 Limits and Conditions of Use:

- 11.1 Limited to maximum frame area= 415.19 ft^2 (1.5x max tested frame area)
- 11.2 Max panel size as shown
- 11.3 Limited to non-shuttered applications inside and outside of the HVHZ where the project specific allowable stress design pressure does not exceed the pressures indicated in the chart noted in section 8.0 when determined in accordance with ASCE 7-10
- 11.4 Alternate conditions not specifically addressed by this approval shall be designed by a registered Florida Professional Engineer or Architect
- 11.5 The structural adequacy of the substrate bearing the wind loads superimposed by this product are the responsibility of others
- 11.6 Conformance to the requirements of the Florida Building Energy, as applicable, are not included in the scope of this evaluation.
- **12.0 Certificate of Independence:** Pursuant to the requirements of 61G20-3 F.A.C, I hereby certify that this Florida Professional Engineer, performing this evaluation, does not have nor will acquire an interest in any company manufacturing or distributing products for which the report is being issued. This is also to certify that this Florida Professional Engineer, does not have,nor will acquire a financial interest in any other entity involved in the approval process of this product.
- **13.0 Certification:** In the professional opinion of this evaluating engineer the aforementioned product, Euro-LS100 Lift and Slide Sliding Glass Door assembly meets the requirements of the Florida Building Code 5th edition for non-shuttered use in the HVHZ when utilized within the limits of use noted herein.