

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION MIAMI-DADE COUNTY PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

SWISSPEARL / Cladding Corp. 640 Airport Rd. 1st Floor Winchester, VA 22602

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: "SWISSPEARL Façade" Cement Composite Wall Panel System

APPROVAL DOCUMENT: Drawing titled "Swisspearl Façade System Cement Composite Panel", sheets 1 through 37 of 37, prepared by Salvatore Ray Granata, P.E., dated January 21, 2022, signed and sealed by Salvatore Ray Granata, P.E., on February 10, 2022, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises & renews NOA #19-0417.01** and consists of this page 1, evidence submitted pages E-1, E-2 & E-3 as well as approval document mentioned above.

The submitted documentation was reviewed by Helmy A. Makar, P.E., M.S.



Heg A. Malo 07/11/24

NOA No. 23-0606.09 Expiration Date: 04/22/2029 Approval Date: 07/11/2024 Page 1

SWISSPEARL / Cladding Corp.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 09-0115.05

A. DRAWINGS

1. Drawing No. C08-258, titled "Swisspearl Façade System Cement Composite Panel", sheets 1 through 31 of 31, prepared by CBuck Engineering, dated April 09, 2009, signed and sealed by James L. Buckner, P.E., on April 10, 2009.

B. TESTS

1. Test report on Large Missile Impact Test, Cyclic Wind Pressure Test and Uniform Static Air Pressure Test on Swisspearl Fiber-Cement Façade Panel System, prepared by Architectural Testing, Report No. 77956.01-109-18, dated 12/18/2008, signed and sealed by Michael D. Stremmel, P.E.

C. CALCULATIONS

1. Calculations titled "Eternit Wall Panel System", dated March 09, 2009, 9 pages, prepared by CBuck Engineering, signed and sealed by James L. Buckner, P.E., on March 09, 2009.

D. QUALITY ASSURANCE

1. By Miami-Dade County Building Code Compliance Office.

E. MATERIAL CERTIFICATIONS

1. None.

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 14-0605.07

A. DRAWINGS

1. Drawing No. C08-258, titled "Swisspearl Façade System Cement Composite Panel", sheets 1 through 31 of 31, prepared by CBuck Engineering, dated April 09, 2009, Revision #4, signed and sealed by James L. Buckner, P.E., on April 22, 2014.

B. TESTS

1. None.

- C. CALCULATIONS
 - 1. None.

D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

E. MATERIAL CERTIFICATIONS

1. None.

Fielmy A. Makar, P.E., M.S. Product Control Section Supervisor NOA No. 23-0606.09 Expiration Date: 04/22/2029 Approval Date: 07/11/2024

SWISSPEARL / Cladding Corp.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 19-0417.01 A. DRAWINGS

1. Drawing titled "Swisspearl Façade System Cement Composite Panel", sheets 1 through 37 of 37, prepared by Salvatore Ray Granata, P.E., dated January 21, 2022, signed and sealed by Salvatore Ray Granata, P.E., on February 10, 2022.

B. TESTS

- 1. Test report on Large Missile Impact Test, Cyclic Wind Pressure Test and Uniform Static Air Pressure Test on Swisspearl Fiber-Cement Façade Panel System, prepared by Farabaugh Engineering and Testing, Inc., Report No. **T301-20**, dated 08/12/2020, signed and sealed by Daniel G. Farabaugh, P.E., on 10/21/2020.
- 2. Test report on Large Missile Impact Test, Cyclic Wind Pressure Test and Uniform Static Air Pressure Test on Swisspearl Fiber-Cement Façade Panel System, prepared by Farabaugh Engineering and Testing, Inc., Report No. **T302-20**, dated 08/12/2020, signed and sealed by Daniel G. Farabaugh, P.E., on 10/21/2020.

C. CALCULATIONS

1. Calculations titled "Swisspearl Cement Composite Wall Panel System", 16 pages, dated May 05, 2021, prepared by Salvatore Ray Granata, P.E., signed and sealed by Salvatore Ray Granata, P.E., on May 05, 2021.

D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

E. MATERIAL CERTIFICATIONS

1. None.

4. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. None.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

E. MATERIAL CERTIFICATIONS

1. None.

Helmy A. Makar, P.E., M.S. Product Control Section Supervisor NOA No. 23-0606.09 Expiration Date: 04/22/2029 Approval Date: 07/11/2024

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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

- 1. Distributor Agreement, dated 03/22/2024, signed by Julien Ferrer of Swisspearl Schweiz AG (manufacturer) and Don Heft of Cladding Corp. (Distributor).
- 2. Florida Building Code 2023 compliance letter issued by Salvatore R. Granata, P.E., dated 06/18/24, signed and sealed by Salvatore R. Granata, P.E.

Hels A. Maly

Helmy A. Makar, P.E., M.S. Product Control Section Supervisor NOA No. 23-0606.09 Expiration Date: 04/22/2029 Approval Date: 07/11/2024 Engineering Report for Submittal To Miami-Dade Products Approvals Revision & Renewal of **NOA 14-0605.07** Report Date 01/21/2022

Swisspearl Façade Cement Composite Wall Panel System

Category: Panels Sub-Category: Wall Panel Dimensions: Nominal 4' x 10' Support Frame: 16 Ga Steel Stud Framing

> Manufacturer Eternit (Schweiz)AG Swisspearl Eternitstrasse 3 Niederurnen 886 Switzerland

Table of Contents

System Support Type C1 – CMU Block Wall pages 2-14 System Support Type S – Steel Stud Wall 13-5/16" Spacing pages 15-26 System Support Type S1 – Steel Stud Wall 15-1/2" Spacing pages 27-37



Engineer Salvatore Granata Florida PE # 53467 <u>sal@srgpe.net</u> (678) 367-3151 PRODUCT REVISED as complying with the Florida Building Code Acceptance No 23-0606.09 Expiration Date 04/22/2029 By Herry A. Mc W

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 19 - 0417.01 Expiration Date <u>APR 2</u> 2024

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R.E.R. Product Control Section

Distributer Swisspearl Imports 12618 Verterans Memorial Parkway Swisspearl Façade System Wentzville, MO 63385

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0.0 System Support Type C(1):

CMU Concrete Block Wall

- 1.0 Product
 - 1.1 Manufacturer Eternit (Schweiz) AG
 - 1.2 Product Name SWISSPEARL® Facade System
 - **1.3 Category** Panels
 - 1.4 Sub Category Walls

2.0 Evaluation Scope:

2.1 Evaluation Criteria:

2.1.1 Florida Building Code (FBC) 2020 Code Section: High Velocity Hurricane Zone (HVHZ)

2.1.2 Miami-Dade Building Code Compliance Office (BCCO) Checklist

2.2 Properties Evaluated:

- 2.2.1 Wind Resistance Properties
 - 2.2.1.1 Uniform Static Air Pressure
 - 2.2.1.2 Large Missile Impact
 - 2.2.1.3 Cyclic Wind Pressure
- 2.2.2 Fire Resistance Properties
- 2.2.3 Panel Material Properties

2.3 Limits of Evaluation:

This product is limited to compliance with the criteria in section 2.1 and properties in section 2.2. of this report.

3.0 Evaluated Uses:

SWISSPEARL Wall Panels are used as nonbearing exterior (facade) wall panels.

4.0 Support: The Support assembly is designed by others and shall have the following minimum Characteristics:

PRODUCT REVISED



5.0 Product Description:

5.1. General:

The SWISSPEARL cement composite facade wall panels are riveted to a steel sub-frame. The steel sub-frame is fastened into the CMU Concrete Block support Wall.

5.2 Panel Dimensions:

| 5.2.1. | Length (Maximum): | 9 ft 11-5/8in |
|--------|-------------------|---------------|
| 5.2.2 | Width (Maximum): | 4 ft |
| 5.2.3 | Thickness: | 5/16 in |

6.0 Performance

6.1 Wind Resistance:

| 6.1.1 | Design Pressure: | Positive Negative | +63 psf -63 psf | |
|--|---|--|--|---|
| | Panel Span: Panel Span Condition: | 14.5" (3 or m | o.c. ore spans | |
| 6.1.2 | Uniform Static Air Pre | essure Test: | | |
| , | 6.1.2.1 Standard 6.1.2.2 Results: | TAS 2022 Passed | 2 | |
| 6.1.3 | Cyclic Air Pressure Te | est | | |
| | 6.1.3.1 Standard: 6.1.3.2 Results: | TAS 203 Passed | | |
| 6.2 Impact Ra | ating: | | | |
| 6.2.1 6.2.2 6.2.3 6.2.4 | Large Missile impact: Standard: Results Test Laboratory: | TAS 201 Passed Farabaugh Engi | ineering and Te | esting, Inc. |
| 6.3 Fire Resis 6.3.1 6.3.2 | tance Test Standard: Results: | E – 84 / E-136 Flame Spread: Smoke Density | 0 : 15 | PRODUCT REVISED as complying with the Florida Building Code Acceptance No $23 - 0606.09$ Expiration Date $04/22/2029$ |
| No 53467 No 53467 STATE OF STATE OF Engineer Salvatore G | | Expiration Date AF By Help A. A | ED 10 Florida 0 41 7. 01 1 22 2024 1 2024 Control | By He Groduct Control |
| 1111102/1 | 0/22 | | Distribute | er Swisspearl Imports |
| Engineer Salvatore G | | | | ns Memorial Parkway |
| Florida PE # 53467 | Swisspearl | Façade Syster | m W | Ventzville, MO 63385 |
| <u>sal@srgpe.net</u> (678) 367-3151 | | | | |
| 010100101 | | | | Page 3 of 37 |

6.4 Panel Material Properties

6.4.1 Test Standard:

6.4.2 Results ASTM C1185 - 95 Passed

7.0 Limitations of Use:

- 7.1 Maximum Panel span 16 in.
- 7.2 Maximum Panel Deflection shall be L/180.
- 7.3 Diaphragm and axial load capacity is outside the scope of this evaluation.
- 7.4 This evaluation is limited to the wall panel, the vertical and horizontal hat and Zee channels, and the fasteners. The structural properties of all other structural items are outside the scope of this evaluation and should be reviewed by the structural plans examiner of the requisite building department.

Code Compliance 8.0

Product meets the High Velocity Hurricane Zone (HVHZ) Requirements of the Florida 8.1 Building Code (FBC) 2020 for the properties evaluated.

Identification: 9.0

9.1. Each Panel shall bear a permanent label with the manufacturer's name or logo, manufacturing plant's city, state and the statement reading "Miami-Dade County Product Control Approved" is to be located on each panel.

10.0 Installation:

- The Horizontal Hat Channels are spaced 34-3/4 in o.c. vertically on the wall. These are 1. fastened to the CMU support at 16 in o.c. (Drawing Page 8) using designated Fastener (section 11.2)
- Vertical Hat Channels are spaced 10 ft on center (Drawing Page 9). They are fastened at the 2. horizontal Zee channels (34-3/4 in o.c.) using designated fastener (section 11.3).
- 3. Vertical Zee Channels are fastened to the Horizontal Zee Channels between the Hat Channels at 16 in o.c. (See Drawing Page 9). These are fastened at the horizontal Zee channels (34-3/4 in o.c.) using designated fastener (section 11.3).



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4. SWISSPEARL cement composite Panels are fastened to the vertical hat channels (at each end) and vertical Zee channels spaced between the hat channels (Drawing Page 10). These are fastened at each support (nominally 14.5 in o.c), and vertically nominally 8 in o.c. up the panel.

11.0 Components

11.1 Panel:

| 11.1.1 | Material | Cement reinforced composite |
|--------|------------|-----------------------------|
| 11.1.2 | Thickness: | 5/16 in (8 mm) |

11.2 Fasteners:

Fastens the horizontal Zee's to the CMU block support system

| 11.2.1 | Manufacturer: | Tapcon |
|--------|-----------------------|------------------|
| 11.2.2 | Туре: | Masonry Fastener |
| 11.2.3 | Size: | 1⁄4 in -14 |
| 11.2.4 | Inbedment: | 1 ¾" Minimum |
| 11.2.5 | Edge Distance: | 1 ¼" Minimum |
| 11.2.6 | Head: | Hex head |
| 11.2.7 | Corrosion Resistance: | Stainless Steel |
| | | |

11.3 Fasteners:

Fastens the vertical Hats and Zee's to the horizontal Zee's. Fastens the cement composite panel to the steel vertical Hats and Zee's.

| 11.3.1 | Manufacturer: | SFS |
|--------|------------------------------|--------------------|
| 11.3.2 | Туре: | Rivets |
| 11.3.3 | Designation: | SSO-D15 |
| 11.3.4 | Size: | 4.0 x 18mm |
| 11.3.5 | Corrosion Resistance: | Stainless Steel |
| 11.3.6 | Vertical fastener spacing: | 8 in o.c. Maximum |
| 11.3.7 | Horizontal fastener spacing: | 16 in o.c. Maximum |

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Engineer Salvatore Granata Florida PE # 53467 sal@srgpe.net (678) 367-3151 PRODUCT REVISED as complying with the Florida Building Code Acceptance No 19 - 0417.01 Expiration Date APR 2024 By Hell A. M. Miami Dec Product Control

Distributer Swisspearl Imports 12618 Verterans Memorial Parkway Swisspearl Façade System Wentzville, MO 63385

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11.4 Horizontal Supports:

Zee channel that is fastened to the steel support. The Vertical Hats and Zee channels are attached to this.

| 11.4.1 | Туре: | Zee Channel |
|--------|-----------------------|-----------------|
| 11.4.2 | Width: | 3-1/8 in. |
| 11.4.3 | Height: | 1-9/16in. |
| 11.4.4 | Thickness: | 16 Gauge |
| 11.4.5 | Material: | Steel |
| 11.4.6 | Corrosion Resistance: | Galvanized. G90 |
| 11.4.7 | Spacing: | 34 ¾" in o.c. |

11.5 Vertical, Supports:

Hat channel that is fastened to the Horizontal Zee channel. The cement composite panels are fastened to this support.

| 11.5.1 | Туре: | Hat Channel |
|--------|-----------------------|---------------------------------------|
| 11.5.2 | Width: | 5-1/2 in. |
| 11.5.3 | Height: | 1-1/2. in. |
| 11.5.4 | Thickness: | 16 Gauge |
| 11.5.5 | Material: | Steel |
| 11.5.6 | Corrosion Resistance: | Galvanized G90 |
| 11.5.7 | Spacing: | 9 ft 11-5/8 in o.c. (at panel joints) |

Zee channel that is fastened to the Horizontal Zee channel. The cement composite panels are fastened to this support.

| 11.5.8 | Туре: | Zee Channel | |
|---------|-----------------------|----------------|--|
| 11.5.9 | Width: | 3-1/8 in. | PRODUCT REVISED |
| 11.5.10 | Height: | 1-9/16 in. | as complying with the Florida Building Code |
| 11.5.11 | Thickness: | 16 Gauge | Building Code Acceptance No 23-0606 |
| 11.5.12 | Material: | Steel | Expiration Date 04/22/ |
| 11.5.13 | Corrosion Resistance: | Galvanized G90 | By He CAM An |
| 11.5.14 | Spacing: | 14 1/2 in o.c. | Miami Dade Product Control |



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11.6 Ventilation profile (Optional):

Perforated L piece that goes in multiple-edge locations.

| 11.6.1 | Length: | 98.5 in. |
|--------|------------|------------|
| 11.6.2 | Width: | 3-1/8 in. |
| 11.6.3 | Height: | 1-9/16 in. |
| 11.6.4 | Thickness: | .027 in. |
| 11.6.5 | Material: | Aluminum |

11.7 L-Flashing (Optional):

L-piece that goes in multiple edge locations.

| 11.7.1 | Length: | 98.5 in. |
|--------|------------|-----------------|
| 11.7.2 | Width: | 3-1/8 in. |
| 11.7.3 | Height: | 1-9/16 in. |
| 11.7.4 | Thickness: | .027 in |
| 11.7.5 | Material: | Stainless Steel |
| | | |

12.0 Reference Data:

- 12.1 Structural Performance
 - 12.1.1 TAS 201, 202 & 203, Large Missile Impact Test, Air Infiltration Test, Uniform Static Air Pressure Test & Water Resistant Test & Cyclic Wind Pressure Loading, respectively. By: Architectural Testing, Inc. Report No.: 77956.01-109-18 Dated: 4/7/08 Revised Date: 12/08/08
- 12.2 Fire Performance
 - 12.2.1 ASTM E-84 &. ASTM E-136 Flame Spread Index / Smoke Density By: Architectural Testing, Inc. (SGS U.S.) Report No.: 170982 Dated: 11/20/02
- 12.3 Material properties
 - 12.3.1 ASTM C 1185-95 Test Specification for Non-Asbestos Fiber-Cement Flat Sheet, roofing and Siding Shingles, and Clapboards By: Architectural-Testing, Inc.

Report No.: 01.42233.01 Dated: 11/20/02 No 53467 STATE OF 0/22Engineer Salvatore Granata Swisspearl Façade System Florida PE # 53467 sal@srgpe.net (678) 367-3151

PRODUCT REVISED as complying with the Florida Building Code 19-Acceptance No. 7.01 Expiration Date A

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Distributer Swisspearl Imports 12618 Verterans Memorial Parkway Wentzville, MO 63385



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Typical Window Jamb Section

No 5-P A NEERS 'IIIIIII STATE OF SORIDA SONAL EN UNING Engineer Salvatore Granata Florida PE # 53467 sal@srgpe.net

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PRODUCT REVISED as complying with the Florida Building Code Acceptance No 23-0606.09 Expiration Date 04/22 2029 By ITC Miami Dad Product Control 1

Distributer Swisspearl Imports 12618 Verterans Memorial Parkway Swisspearl Façade System Wentzville, MO 63385

0.0 System Support Type S(1):

Vertical Steel Support 13-5/16" spacing

- 1.0 Product
 - 1.1 Manufacturer Eternit (Schweiz) AG
 - 1.2 Product Name SWSSPEARL® Facade System
 - 1.3 Category Panels
 - 1.4 Sub Category Walls

2.0 Evaluation Scope:

- 2.1 Evaluation Criteria:
 - 2.1.1 Florida Building Code (FBC) 2020
 - Code Section: High Velocity Hurricane Zone (HVHZ)
 - 2.1.2 Miami-Dade Building Code Compliance Office (BCCO) Checklist

2.2 Properties Evaluated:

- 2.2.1 Wind Resistance Properties
 - 2.2.1.1 Uniform Static Air Pressure
 - 2.2.1.2 Large Missile Impact
 - 2.2.1.3 Cyclic Wind Pressure
- 2.2.2 Fire Resistance Properties
- 2.2.3 Panel Material Properties

2.3 Limits of Evaluation:

This product is limited to compliance with the criteria in section 2.1 and properties in section 2.2 of this report

3.0 Evaluates Uses:

SWISSPEARL Wall Panels are used as nonbearing exterior (facade) wall panels.

4.0 Support: The Support assembly is designed by others and shall have the following minimum Characteristics

4.1 Studs Material: Steel 4.1.1 16 Ga. (0.062 in) 4.1.2 Thickness: 2 - 1/4 in Minimum Face Width: 4.1.3 PRODUCT REVISED AUTHINIA SALAN as complying with the Florida 414 Spacing: 16 in Maximum **Building Code** Acceptance No 2 Expiration Date PRODUCT REVISED No 53467 Bu as complying with the Florida Mi: Building Code uni Dade Acceptance No 19-0417.01 STATE OF **Expiration** Date 2024 By Miami Deg 2/10/22 **Distributer Swisspearl Imports Engineer Salvatore Granata** 12618 Verterans Memorial Parkway Wentzville, MO 63385 Florida PE # 53467 Swisspearl Façade System sal@srgpe.net (678) 367-3151 Page 15 of 37

4.2 Sheathing

| 4.2.3 | (Optional additional layer) | 5/8" Type "X" Drywall | |
|-------|-----------------------------|-----------------------|--|
| 4.2.2 | Thickness: | 5/8 in | |
| 4.2.1 | Material: | 5/8" 5 Ply Plywood | |

4.3 Sheathing Fasteners

4.3.3

4.3.4

| 4.3.1 | Type: |
|-------|-------|
| 4.3.2 | Size: |

Drywall Screws, Self-Tapping #6 x 1- 5/8 in Phosphate coated 12 in o.c. around perimeter at each stud

5.0 Description:

5.1 General:

The SWISSPEARL cement composite facade wall panels are riveted to a steel sub-frame. The steel sub-frame is fastened into the Steel stud support Wall.

5.2 Panel. Dimensions:

| 5.2.1 | Length (Maximum): | 9 ft 11-5/8in |
|-------|-------------------|---------------|
| 5.2.2 | Width (Maximum): | 4 ft |
| 523 | Thickness: | 5/16 in |

Corrosion Resistance:

Fastener spacing:

6.0 Performance

6.1 Wind. Resistance:

6.

| 1.1. | Design Pressures | Positive | +95 psf |
|------|-----------------------|----------|------------|
| | | Negative | -95 psf |
| | Panel Span: | 13-5 | /16" o.c. |
| | Panel Span Condition: | 3 or : | more spans |

Uniform Static Air Pressure Test: 6.1.2

| 6.1.2.1 | Standard: | TAS 202 |
|---------|-----------|---------|
| 6.1.2.2 | Results: | Passed |

Cyclic Air Pressure Test 6.1.3

| 6.1.3.1 | Standard: | TAS 203 |
|---------|-----------|----------------|
| 6.1.3.2 | Results: | Passed |

6.2 Impact Rating: 6.2.1

6.2.2

6.2.3

10/22

Large Missile Impact: Standard Results

TAS 201 Passed

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ontro **Distributer Swisspearl Imports** 12618 Verterans Memorial Parkway

Swisspearl Façade System

Wentzville, MO 63385

sal@srgpe.net (678) 367-3151

Florida PE # 53467

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Engineer Salvatore Granata

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6.3 Fire Resistance

| 6.3.1 | Test Standard: | E-84/E-136 | |
|-------|----------------|----------------|----|
| 6.3.2 | Results: | Flame Spread: | 0 |
| | | Smoke Density: | 15 |

6.4 Panel Material Properties

| | Test Standard: | ASTM C 1185 - 95 |
|-------|----------------|------------------|
| 6.4.2 | Results | Passed |

7.0 Limitations of Use:

- 7.1 Maximum Panel span 16 in.
- 7.2 Maximum Panel Deflection shall he L/180.
- 7.3 Diaphragm and axial load capacity is outside the "scope of this evaluation.
- 7.4 This evaluation is limited to the wall panel, the vertical and horizontal hat and Zee channels, and the fasteners. The structural properties of all other structural items (beams, columns, purlins, facia supports etc.) are outside the scope of this evaluation and should be reviewed by the structural plans examiner of the requisite building department.

8.0 Code Compliance

8.1 Product meets the High Velocity Hurricane Zone (HVHZ) Requirements of the Florida Building Code (FBC) 2020 for the properties evaluated.

9.0 Identification:

9.1. Each Panel shall bear a permanent label with the manufacturer's name or logo, manufacturing plant's city, state and the statement reading "Miami-Dade County Product Control Approved" is to be located on each panel.

10.0 Installation:

- 1. The Horizontal Zee Channels are spaced 34-3/4 in o.c. vertically on the wall. These are fastened to the Steel support at each stud (16 in o.c.) through the 5/8" plywood using ONE designated Fasteners.
- 2. Vertical Hat Channels are spaced 10 ft on center. They are fastened at the horizontal Zee channels (34-3/4 in o.c.) using designated fastener.



- 3. Vertical Zee Channels are fastened to the Horizontal Zee Channels between the Hat Channels at 16 in o.c. These are fastened at the horizontal Zee channels (34-3/4 in o.c.) using designated fastener.
- 4. SWISSPEARL cement composite Panels are fastened to the vertical Zee channels (at each end) and vertical Zee channels spaced between the hat channels. These are fastened at each support (nominally 13-5/16 in o.c.), and vertically nominally 7 in o.c. up the panel.

11.0 Components

11.1 Panel:

| 11.1.1 | Material | Cement reinforced composite |
|--------|------------|-----------------------------|
| 11.1.2 | Thickness: | 5/16 in (8 mm) |

11.2 Fasteners:

Fastens the horizontal Zee's to the Steel Stud support system

| 11.2.1 | Туре: | Self Tapping Screw |
|--------|--------------------------|--------------------|
| 11.2.2 | Size: | #6 x 1-5/8 in |
| 11.2.3 | Number per Intersection: | 1 |
| 11.2.4 | Head: | Hex head |
| 11.2.5 | Corrosion Resistance: | Phosphate coated |
| | | |

11.3 Fasteners:

Fastens the vertical Hats and Zee's to the horizontal Zee's. Fastens the cement composite panel to the steel vertical Hats and Zee's.

| 11.3.1 | Manufacturer: | SFS |
|--------|----------------------------|-------------------|
| 11.3.2 | Туре: | Rivets |
| 11.3.3 | Designation: | SSO-D15 |
| 11.3.4 | Size: | 4.0 x 18mm |
| 11.3.5 | Corrosion Resistance: | Stainless Steel |
| 11.3.6 | Vertical fastener spacing: | 8 in o.c. Maximum |
| 11.3.7 | Horizontal fastener spa | 16in o.c. Maximum |



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Engineer Salvatore Granata Florida PE # 53467 sal@srgpe.net (678) 367-3151

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11.4 Horizontal Supports

Zee channel that is fastened to the steel support. The Vertical Hats and Zee channels are attached to this.

| Туре: | Zee Channel. |
|-----------------------|---|
| Width: | 3-1/8 in. |
| Height: | 1-9/ 16 in. |
| Thickness: | 16 Gauge |
| Material: | Steel |
| Corrosion Resistance: | Galvanized G90 |
| Spacing: | 34-3/4 in o.c. |
| | Width: Height: Thickness: Material: Corrosion Resistance: |

11.5 Vertical Supports:

Hat channel that is fastened to the Horizontal Zee channel. The cement composite panels are fastened to this support.

| 11.5.1 | Туре: | Zee Channel |
|--------|-----------------------|-----------------------------|
| 11.5.2 | Width: | 3-1/8 in |
| 11.5.3 | Height: | 1-9/ 16 in. |
| 11.5.4 | Thickness: | 16 Gauge |
| 11.5.5 | Material: | Steel |
| 11.5.6 | Corrosion Resistance: | Galvanized G90 |
| 11.5.7 | Spacing: | 7 in o.c. (at panel joints) |

11.6 Ventilation profile (Optional):

Perforated L piece that goes in multiple edge locations.

| 11.6.1 | Length: | 98.5 in. |
|--------|------------|-------------|
| 11.6.2 | Width: | 3-1/8 in. |
| 11.6.3 | Height: | 1-9/ 16 in. |
| 11.6.4 | Thickness: | .027 in |
| 11.6.5 | Material: | Aluminum |
| | | |

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11.7 L-Flashing (Optional):

L piece that goes in multiple edge locations

| 1 |
|---|
| |

12.0 Reference Data:

12.1 Structural Performance

12.1.1 TAS 201, 202 & 203, Large Missile Impact Test, Air Infiltration Test, Uniform Static Air Pressure Test & Water Resistant Test & Cyclic Wind Pressure Loading, respectively. By: Farabaugh Engineering and Testing Inc. Report Ne: T301-20 Dated: 8/12/2020 Revised Date: NA

12.2 Fire Performance

12.2.1 ASTM E-84 & ASTM E-136 Flame Spread Index / Smoke Density By: Architectural Testing, Inc. (SGS U.S.) Report No. 170982 Dated: 11/20/02

12.3 Material properties

12.3.1 ASTM C 1185-95 Test Specification for Non-Asbestos Fiber-Cement Flat Sheet, roofing and Siding Shingles, and Clapboards By: Architectural Testing, Inc. Report No.: 01.42233.01 Dated: 11/20/02



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Z-PANEL SUBFRAME

as complying with the Florida Building Code Acceptance No 2 3 -06.04 AUTHINIA Expiration Date PRODUCT REVISED B Te as complying with the Florida Miami Dada No.53467 Building Code 19-0417.0/ Acceptance No 19-0417.0/ Expiration DateAPR 27 11/1 STATE OF Ó, FLORIDA SSIONAL **Distributer Swisspearl Imports** 10/22Engineer JalVatore Granata 12618 Verterans Memorial Parkway Wentzville, MO 63385 Florida PE # 53467 Swisspearl Façade System sal@srgpe.net (678) 367-3151

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PRODUCT REVISED





SWISSPEARL PLAN DETAIL (8' SIDE)

No 5° No 53467 STATE OF STA PRODUCT REVISED as complying with the Florida Building Code Acceptance No 23-0606.09 PRODUCT REVISED Expiration Date O as complying with the Florida 2029 Building Code 19-0417.01 Acceptance No 19-0417.01 By He H. Mal Mianii Dade Product Control Expiration Date APR 2 2024 11/4 By H Miami **Distributer Swisspearl Imports** 12618 Verterans Memorial Parkway Swisspearl Façade System Wentzville, MO 63385 Florida PE # 53467 sal@srgpe.net (678) 367-3151

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0.0 System Support Type S(2):

Vertical Steel Support 15-1/2" Spacing

- 1.0 Product
 - 1.1 Manufacturer Eternit (Schweiz) AG
 - 1.2 Product Name SWISSPEARL® Facade System
 - 1.3 Category Panels
 - 1.4 Sub Category Walls

2.0 Evaluation Scope:

- 2.1 Evaluation Criteria:
 - 2.1.1 Florida Building Code (FBC) 2020
 - Code Section: High Velocity Hurricane Zone (HVHZ)
 - 2.1.2 Miami-Dade Building Code Compliance Office (BCCO) Checklist

2.2 Properties Evaluated:

- 2.2.1 Wind Resistance Properties
 - 2.2.1.1 Uniform Static Air Pressure
 - 2.2.1.2 Large Missile Impact
 - 2.2.1.3 Cyclic Wind Pressure
- 2.2.2 Fire Resistance Properties
- 2.2.3 Panel Material Properties

2.3 Limits of Evaluation:

This product is limited to compliance with the criteria in section 2.1 and properties in section 2.2 of this report

3.0 Evaluates Uses:

SWISSPEARL Wall Panels are used as nonbearing exterior (facade) wall panels.

4.0 Support: The Support assembly is designed by others and shall have the following minimum Characteristics

4.1 Studs Material: Steel 4.1.1 16 Ga. (0.062 in) 412 Thickness: PRODUCT REVISED Face Width: 2 - 1/4 in Minimum as complying with the Florida Spacing: 16 in Maximum **Building Code** Acceptance No Expiration Date C PRODUCT REVISED No 53467 as complying with the Florida Building Code Acceptance No 19-0417.01 Expiration Date APR 2.2 /1124 STATE OF Distributer Swisspearl Imports IONAL Engineer SalVatore Granata 12618 Verterans Memorial Parkway Swisspearl Façade System Wentzville, MO 63385 Florida PE # 53467 sal@srgpe.net (678) 367-3151 Page 27 of 37

4.2 Sheathing

| 4.2.1 | Material: | 5/8" 5 Ply Plywood |
|-----------|-----------------------------|-------------------------|
| 4.2.2 | Thickness: | 5/8 in |
| 4.2.3 | (Optional additional layer) | 5/8" Type "X" Drywall |
| Sheathing | Fasteners | |
| 4.3.1 | Туре: | Drywall Screws, Self-Ta |

4.3

4.3.3

4.3.4

| 4.3.1 | Type: |
|-------|-------|
| 4.3.2 | Size: |

apping #6 x 1- 5/8 in Phosphate coated 12 in o.c. around perimeter at each stud

5.0 **Description:**

5.1 General:

The SWISSPEARL cement composite facade wall panels are riveted to a steel sub-frame. The steel sub-frame is fastened into the Steel stud support Wall.

5.2 Panel. Dimensions:

| 5.2.1 | Length (Maximum): | 9 ft 11-5/8in |
|-------|-------------------|---------------|
| 5.2.2 | Width (Maximum): | 4 ft |
| 5.2.3 | Thickness: | 5/16 in |

Corrosion Resistance:

Fastener spacing:

Performance 6.0

| 6.1 | Wind. Res | istance: | | |
|-----|-----------|-----------------------|----------|------------|
| | 6.1.1. | Design Pressures | Positive | +95 psf |
| | | | Negative | -95 psf |
| | | Panel Span: | 15-1/ | 2" o.c. |
| | | Panel Span Condition: | 3 or 1 | nore spans |
| | | | | |

Uniform Static Air Pressure Test: 6.1.2

| 6.1.2.1 | Standard: | TAS 202 |
|---------|-----------|---------|
| 6.1.2.2 | Results: | Passed |

Cyclic Air Pressure Test 6.1.3

| 6.1.3.1 | Standard: | TAS 203 |
|---------|-----------|---------|
| 6.1.3.2 | Results: | Passed |

6.2 Impact Rating:



Standard 6.2.2 6.2.3 Results

10/22

TAS 201 Passed

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6.3 Fire Resistance

| 6.3.1 | Test Standard: | E - 84 / E-136 | |
|-------|----------------|----------------|----|
| 6.3.2 | Results: | Flame Spread: | 0 |
| | | Smoke Density: | 15 |

6.4 Panel Material Properties

| anor tran | ter min a roper tree | |
|-----------|----------------------|------------------|
| 6.4.1 | Test Standard: | ASTM C 1185 - 95 |
| 6.4.2 | Results | Passed |

Limitations of Use: 7.0

- 7.1 Maximum Panel span 16 in.
- 7.2 Maximum Panel Deflection shall he L/180.
- 7.3 Diaphragm and axial load capacity is outside the "scope of this evaluation.
- 7.4 This evaluation is limited to the wall panel, the vertical and horizontal hat and Zee channels, and the fasteners. The structural properties of all other structural items (beams, columns, purlins, facia supports etc.) are outside the scope of this evaluation and should be reviewed by the structural plans examiner of the requisite building department.

8.0 **Code Compliance**

Product meets the High Velocity Hurricane Zone (HVHZ) Requirements of the Florida 8.1 Building Code (FBC) 2020 for the properties evaluated.

9.0 Identification:

Each Panel shall bear a permanent label with the manufacturer's name or logo, manufacturing 9.1. plant's city, state and the statement reading "Miami-Dade County Product Control Approved" is to be located on each panel.

10.0 Installation:

- The Horizontal Zee Channels are spaced 34-3/4 in o.c. vertically on the wall. These are 1. fastened to the Steel support at each stud (16 in o.c.) through the 5/8" plywood using ONE designated Fasteners.
- Vertical Hat Channels are spaced 10 ft on center. They are fastened at the horizontal Zee 2. channels (34-3/4 in o.c.) using designated fastener.
- Vertical Zee Channels are fastened to the Horizontal Zee Channels between the Hat Channels 3. at 16 in o.c. These are fastened at the horizontal Zee channels (34-3/4 in o.c.) using designated fastener.



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4. SWISSPEARL cement composite Panels are fastened to the vertical Zee channels (at each end) and vertical Zee channels spaced between the hat channels. These are fastened at each support (nominally 15-1/2 in o.c.), and vertically nominally 14 in o.c. up the panel.

11.0 Components

11.1 Panel:

| 11.1.1 | Material | Cement reinforced composite |
|--------|------------|-----------------------------|
| 11.1.2 | Thickness: | 5/16 in (8 mm) |

11.2 Fasteners:

Fastens the horizontal Zee's to the Steel Stud support system

| 11.2.1 | Туре: | Self Tapping Screw |
|--------|--------------------------|--------------------|
| 11.2.2 | Size: | #6 x 1-5/8 in |
| 11.2.3 | Number per Intersection: | 1 |
| 11.2.4 | Head: | Hex head |
| 11.2.5 | Corrosion Resistance: | Phosphate coated |

11.3 Fasteners:

Fastens the vertical Hats and Zee's to the horizontal Zee's. Fastens the cement composite panel to the steel vertical Hats and Zee's.

| 11.3.1 | Manufacturer: | SFS |
|--------|------------------------------|-------------------|
| 11.3.2 | Туре: | Rivets |
| 11.3.3 | Designation: | SSO-D15 |
| 11.3.4 | Size: | 4.0 x 18mm |
| 11.3.5 | Corrosion Resistance: | Stainless Steel |
| 11.3.6 | Vertical fastener spacing: | 8 in o.c. Maximum |
| 11.3.7 | Horizontal fastener spacing: | 16in o.c. Maximum |



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sal@srgpe.net (678) 367-3151 PRODUCT REVISED as complying with the Florida Building Code 19-0417.61 Expiration Date APR 2024 By H. A. M. Marini Deserveduet Control

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11.4 Horizontal Supports

Zee channel that is fastened to the steel support. The Vertical Zee channels are attached to this.

| 11.4.1 | Туре: | Zee Channel. |
|--------|-----------------------|----------------|
| 11.4.2 | Width: | 3-1/8 in. |
| 11.4.3 | Height: | 1-1/2 in. |
| 11.4.4 | Thickness: | 16 Gauge |
| 11.4.5 | Material: | Steel |
| 11.4.6 | Corrosion Resistance: | Galvanized G90 |
| 11.4.7 | Spacing: | 34-3/4 in o.c. |
| | | |

11.5 Vertical Supports:

Zee channel that is fastened to the Horizontal Zee channel. The cement composite panels are fastened to this support.

| annel |
|----------------------|
| i |
| |
| ge |
| |
| zed G90 |
| c. (at panel joints) |
| |

11.6 Ventilation profile (Optional):

Perforated L piece that goes in multiple edge locations.

| 11.6.1 | Length: | 98.5 in. |
|--------|------------|------------|
| 11.6.2 | Width: | 3-1/8 in. |
| 11.6.3 | Height: | 1-9/16 in. |
| 11.6.4 | Thickness: | .027 in |
| 11.6.5 | Material: | Aluminum |



11.7 L-Flashing (Optional):

L piece that goes in multiple edge locations

| 11.7.1 | Length: | 98.5 in. |
|--------|------------|-----------------|
| 11.7.2 | Width: | 3-1/8 in. |
| 11.7.3 | Height: | 1-9/16 in. |
| 11.7.4 | Thickness: | .027 in. |
| 11.7.5 | Material: | Stainless Steel |

12.0 Reference Data:

12.1 Structural Performance

12.1.1 TAS 201, 202 & 203, Large Missile Impact Test, Air Infiltration Test, Uniform Static Air Pressure Test & Water Resistant Test & Cyclic Wind Pressure Loading, respectively. By: Farabaugh Engineering and Testing Inc. Report Ne: T302-20 Dated: 8/12/2020 Revised Date: NA

12.2 Fire Performance

12.2.1 ASTM E-84 & ASTM E-136 Flame Spread Index / Smoke Density By: Architectural Testing, Inc. (SGS U.S.) Report No. 170982 Dated: 11/20/02

12.3 Material properties

12.3.1 ASTM C 1185-95 Test Specification for Non-Asbestos Fiber-Cement Flat Sheet, roofing and Siding Shingles, and Clapboards By: Architectural Testing, Inc. Report No.: 01.42233.01 Dated: 11/20/02



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Engineer Salvatore Granata Florida PE # 53467

sal@srgpe.net (678) 367-3151 **22** Distributer Swisspearl Imports 12618 Verterans Memorial Parkway Swisspearl Façade System Wentzville, MO 63385

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Z-PANEL SUBFRAME



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SWISSPEARL PANEL

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Florida PE # 53467 sal@srgpe.net (678) 367-3151 PRODUCT REVISED as complying with the Florida Building Code Acceptance No 19-04/7.0/ Expiration Date APR 7.2 2024 By H. J. J. Munu Minmi Dade Product Control

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