## ELEVATION CERTIFICATE <br> Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

| SECTION A - PROPERTY INFORMATION | FOR INSURANCE COMPANY USE |
| :--- | :--- |
| A1. Building Owner's Name <br> DAVID FUHRMANN \& SANDRA FUHRMANN | Policy Number: |
| A2. Building Street Address (including Apt., Unit, Suite, and/or BIdg. No.) or P.O. Route and <br> Box No. <br> 1049 FIELDSTONE DR | Company NAIC Number: |
| City | State |
| MARCO ISLAND | Florida |

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
PARCEL ID-57650000005
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)

## RESIDENTIAL

A5. Latitude/Longitude: Lat. $25^{\circ} 55^{\prime} 28.2^{\prime \prime} \mathrm{N}$ Long. $81^{\circ} 43{ }^{\prime 2} 22.7^{\prime \prime} \mathrm{W}$

Horizontal Datum:NAD 1927 ® NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.
A7. Building Diagram Number $\qquad$ 1B

A8. For a building with a crawlspace or enclosure(s):
a) Square footage of crawlspace or enclosure(s)
N/A sq ft
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade N/A
c) Total net area of flood openings in A8.b $\qquad$ N/A sq in
d) Engineered flood openings?Yes - No

A9. For a building with an attached garage:
a) Square footage of attached garage $\qquad$
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 9
c) Total net area of flood openings in A9.b 727.28 sq in
d) Engineered flood openings?
® YesNo

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

| B1. NFIP Community Name \& Community Number <br> CITY OF MARCO ISLAND - 120426 |  |  |  |  |  |  |  | B2. County Name <br> COLLIER | B3. State <br> Florida |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| B4. Map/Panel <br> Number <br> 12021 C-0836 | B5. Suffix | B6. FIRM Index <br> Date | B7. FIRM Panel <br> Effective/ <br> Revised Date <br> $05-16-2012$ | B8. Flood <br> Zone(s) | B9. Base Flood Elevation(s) <br> (Zone AO, use Base Flood Depth) |  |  |  |  |
| $05-16-2012$ |  |  |  |  |  |  |  |  |  |

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
$\square$ FIS Profile $\boxtimes$ FIRM $\square$ Community Determined $\square$ Other/Source:
B11. Indicate elevation datum used for BFE in Item B9: $\square$ NGVD 1929 Х NAVD $1988 \square$ Other/Source:

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? $\square$ Yes $\boxed{X}$ No Designation Date: $\qquad$CBRS $\square$ OPA

| IMPORTANT：In these spaces，copy the corresponding information from Section A． | FOR INSURANCE COMPANY USE |  |
| :--- | :--- | :--- |
| Building Street Address（including Apt．，Unit，Suite，and／or Bldg．No．）or P．O．Route and Box No． | Policy Number： |  |
| 1049 FIELDSTONE DR |  |  |
| City | State | ZIP Code |
| MARCO ISLAND | Florida | Company NAIC Number |

## SECTION C－BUILDING ELEVATION INFORMATION（SURVEY REQUIRED）

C1．Building elevations are based on：$\square$ Construction Drawings＊$\square$ Building Under Construction＊$\boxtimes$ Finished Construction ＊A new Elevation Certificate will be required when construction of the building is complete．
C2．Elevations－Zones A1－A30，AE，AH，A（with BFE），VE，V1－V30，V（with BFE），AR，AR／A，AR／AE，AR／A1－A30，AR／AH，AR／AO． Complete Items C2．a－h below according to the building diagram specified in Item A7．In Puerto Rico only，enter meters． Benchmark Utilized：COL 14

Vertical Datum：NAVD 1988 Indicate elevation datum used for the elevations in items a）through h）below． $\square$ NGVD 1929 Х NAVD $1988 \quad \square$ Other／Source： Datum used for building elevations must be the same as that used for the BFE．

Check the measurement used．

| a）Top of bottom floor（including basement，crawlspace，or enclosure floor） | 9.5 ¢ feet | meters |
| :---: | :---: | :---: |
| b）Top of the next higher floor | N／A X feet | meters |
| c）Bottom of the lowest horizontal structural member（V Zones only） | N／A $\triangle$ feet | $\square$ meters |
| d）Attached garage（top of slab） | 7.6 区 feet | meters |
| e）Lowest elevation of machinery or equipment servicing the building （Describe type of equipment and location in Comments） | 9.6 区 feet | $\square$ meters |
| f）Lowest adjacent（finished）grade next to building（LAG） | $7.0 \times$ feet | meters |
| g）Highest adjacent（finished）grade next to building（HAG） | 7.5 区 feet | $\square$ meters |
| h）Lowest adjacent grade at lowest elevation of deck or stairs，including structural support | N／A 区 feet | $\square$ meters |

## SECTION D－SURVEYOR，ENGINEER，OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor，engineer，or architect authorized by law to certify elevation information． I certify that the information on this Certificate represents my best efforts to interpret the data available．I understand that any false statement may be punishable by fine or imprisonment under 18 U．S．Code，Section 1001.
Were latitude and longitude in Section A provided by a licensed land surveyor？$\boxtimes$ Yes $\square$ No $\square$ Check here if attachments．


Copy all pages of this Elevation Certificate and all attachments for（1）community official，（2）insurance agent／company，and（3）building owner．
Comments（including type of equipment and location，per $\mathrm{C} 2(e)$ ，if applicable）
LATITUDE AND LONGITUDE WERE MEASURED USING THE TRIMBLE R8．THE EQUIPMENT USED IS GPS．THE REAL TIME NETWORKS USED ARE FDOT AND TOPCON．ITEM LISTED IN C2（e），IS THE AIR CONDITIONING UNIT ON THE RIGHT SIDE OF THE BUILDING．THE ELEVATION OF THE POOL EQUIPMENT PAD IS 7．0＇．DATE OF FIELD WORK IS 01－20－2021． 2 OF THE 9 VENTS ARE ENGINEERED VENTS FLOOD FLAPS MODEL FFNF08．THE EQUIVALENT SQ IN FOR THESE TWO ENGINEERED VENTS IS 440 SQ FT．

| IMPORTANT: In these spaces, copy the corresponding information from Section A. | FOR INSURANCE COMPANY USE |  |
| :--- | :--- | :--- |
| Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Policy Number:  <br> 1049 FIELDSTONE DR State ZIP Code |  |  |
| City | Florida | 34145 |

## SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1-E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1-E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.
E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
a) Top of bottom floor (including basement, crawlspace, or enclosure) isfeetmeters $\square$ above orbelow the HAG.
b) Top of bottom floor (including basement, crawlspace, or enclosure) is $\qquad$feetmetersabove orbelow the LAG.

E2. For Building Diagrams 6-9 with permanent flood openings provided in Section A ltems 8 and/or 9 (see pages 1-2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building isfeetmetersabove orbelow the HAG

E3. Attached garage (top of slab) is $\qquad$feetmetersabove orbelow the HAG.

E4. Top of platform of machinery and/or equipment servicing the building isfeetmetersabove orbelow the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? $\square$ Yes $\square$ NoUnknown. The local official must certify this information in Section G.

## SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name

| Address | City | State | ZIP Code |
| :--- | :--- | :--- | :--- |
| Signature | Date | Telephone |  |
| Comments |  |  |  |


Local Official's Name Title

## Floodplain Coordinator

Community Name
Telephone
City of Marco Island
Signature
Comments (including type of equipment and location, per C2(e), if applicable)

## REVIEWED

By Kelli DeFedericis at 8:40 am, Feb 09, 2021

OMB No. 1660-0008
Expiration Date: November 30, 2022

FOR INSURANCE COMPANY USE
Policy Number:
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 1049 FIELDSTONE DR

| City | State | ZIP Code | Company NAIC Number |
| :--- | :--- | :--- | :--- |
| MARCO ISLAND | Florida | 34145 |  |

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.


Photo One
Photo One Caption FRONT VIEW PHOTO DATE: 01-20-2021.
Clear Photo One


Photo Two

BUILDING PHOTOGRAPHS
Continuation Page

OMB No. 1660-0008
Expiration Date: November 30, 2022

Policy Number:

Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.


Photo Three
Photo Three Caption REAR VIEW PHOTO DATE: 01-20-2021.
Clear Photo Three


Photo Four

In Cooperation with

DIVISION: 0800 00—OPENINGS

## SECTION: 0895 43—VENTS/FOUNDATION FLOOD VENTS

## REPORT HOLDER:

## FLOOD FLAPS®, LLC

## EVALUATION SUBJECT:

FLOOD FLAPS ${ }^{\circledR}$ AUTOMATIC FLOOD VENTS: MODELS FFWF12; FFNF12; FFWF08; FFNF08; FFWF05; FFNF05

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## DIVISION: 0800 00—OPENINGS

Section: 0895 43-Vents/Foundation Flood Vents

## REPORT HOLDER:

## FLOOD FLAPS ${ }^{\circledR}$, LLC

## EVALUATION SUBJECT:

FLOOD FLAPS ${ }^{\circledR}$ AUTOMATIC FLOOD VENTS: MODELS FFWF12; FFNF12; FFWF08; FFNF08; FFWF05; FFNF05

### 1.0 EVALUATION SCOPE

Compliance with the following codes:
■ 2018, 2015, 2012 and 2009 International Building Code ${ }^{\circledR}$ (IBC)
■ 2018, 2015, 2012 and 2009 International Residential Code ${ }^{\circledR}$ (IRC)
Properties evaluated:

- Physical operation
- Water flow
- Weathering


### 2.0 USES

Flood Flaps ${ }^{\circledR}$ automatic flood vents are used to provide for the equalization of hydrostatic flood forces on exterior walls. Certain models also allow natural ventilation.

### 3.0 DESCRIPTION

### 3.1 General:

Flood Flaps ${ }^{\circledR}$ automatic flood vents are engineered mechanically operated flood vents (FVs) that automatically allow flood waters to enter and exit enclosed areas. The FVs are constructed of ABS plastic which serves as the FV's housing, and a front grill that contains an anodized metal screen imbedded in polypropylene plastic. On contact with rising flood water, the grill will disengage from its secured position, allowing flood water and debris to flow through in either direction. The FVs are available in two series as described in Section 3.3.

The sealed series models contain two rubber flaps that close the FV to the passage of air when using with conditioned areas or sealed crawl spaces. In the same manner as the grill, the two rubber flaps are pushed open by water pressure, allowing water and debris to flow through the FV in either direction. See Figure 1 for an illustration of the Flood Flaps ${ }^{\circledR}$ automatic FV.

### 3.2 Engineered Opening:

The Flood Flaps ${ }^{\circledR}$ automatic FVs comply with the design principle noted in Sections 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 (2018 and 2015 IBC and IRC) [Section 2.6.2.2 of ASCE/SEI 24-05 (2012 and 2009 IBC and IRC)] for a rate of rise and fall of 5 feet per hour ( $0.423 \mathrm{~mm} / \mathrm{s}$ ). In order to comply with the engineered opening requirement of ASCE/SEl 24, Flood Flaps ${ }^{\circledR}$ automatic FVs must be installed in accordance with Section 4.0.

### 3.3 Flood Vent Series Models:

Flood Flaps ${ }^{\circledR}$ automatic FVs are available in two series with multiple models and sizes as described in Table 1. The sealed series models, designated FFWF, include two rubber flaps for the prevention of air flow. The multipurpose series, designated FFNF, omits the rubber flaps.

### 3.4 Natural Ventilation:

Flood Flaps ${ }^{\circledR}$ automatic FV models FFNF12, FFNF08, FFNF05, and FFNF02 have metal screens with $1 / 4$ inch by $1 / 4$ inch ( 6 mm by 6 mm ) openings and provide 37 square inches ( $0.02 \mathrm{~m}^{2}$ ) of net free opening to supply natural ventilation for under-floor ventilation. Flood Flaps ${ }^{\circledR}$ automatic FV models FFWF12, FFWF08, and FFWF05 have not been evaluated for use as openings for underfloor ventilation.

### 4.0 DESIGN AND INSTALLATION

Flood Flaps ${ }^{\circledR}$ automatic FVs are designed to be installed into walls of existing or new construction. Installation of the FVs must be in accordance with the manufacturer's instructions, the applicable code and this report. Flood Flaps ${ }^{\circledR}$ automatic FVs can be installed in wood, masonry and concrete walls up to a thickness of 12 inches ( 305 mm ). In order to comply with the engineered opening design principle noted in Sections 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 (2018 and 2015 IBC and IRC) [Section 2.6.2.2 of ASCE/SEI 24-05 (2012 and 2009 IBC and IRC)], the Flood Flaps ${ }^{\circledR}$ FVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one FV for every 220 square feet ( $20 \mathrm{~m}^{2}$ ) of enclosed area.
- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches ( 305 mm ) above grade.


### 5.0 CONDITIONS OF USE

The Flood Flaps ${ }^{\circledR}$ automatic flood vents described in this report comply with, or are suitable alternatives to what is
specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:
5.1 The Flood Flaps ${ }^{\circledR}$ automatic FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern.
5.2 The Flood Flaps ${ }^{\circledR}$ automatic FVs must not be used in place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

### 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised October 2017).

### 7.0 IDENTIFICATION

7.1 The Flood Flaps ${ }^{\circledR}$ models recognized in this report are identified by a label bearing the manufacturer's name, the model number, and the evaluation report number (ESR-3560).
7.2 The report holder's contact information is the following:
FLOOD FLAPS ${ }^{\circledR}$, LLC
POST OFFICE BOX 1003
ISLE OF PALMS, SOUTH CAROLINA 29451
(843) 881-0190
www.floodflaps.com info@floodflaps.com

TABLE 1—FLOOD FLAP AUTOMATIC FLOOD VENT MODEL SIZES

| MODEL NUMBER | MODEL DESIGNATION | ROUGH OPENING (Width X Height) (inches) | VENT SIZE <br> (W X H X D) <br> (inches) | ENCLOSED AREA COVERAGE (ft ${ }^{2}$ ) | NET FREE AREA OPENING ${ }^{1}$ (in ${ }^{2}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FFWF12 | Sealed Series | $16 \times 8$ | $15^{5} / 8 \times 7{ }^{3} / 4 \times 12$ | 220 | NA |
| FFNF12 | Multi-Purpose | $16 \times 8$ | $15^{5} / 8 \times 7{ }^{3} / 4 \times 12$ | 220 | 37 |
| FFWF08 | Sealed Series | $16 \times 8$ | $15^{5} / 8 \times 7^{3 / 4} \times 8$ | 220 | NA |
| FFNF08 | Multi-Purpose | $16 \times 8$ | $15{ }^{5} / 8 \times 7^{3} / 4 \times 8$ | 220 | 37 |
| FFWF05 | Sealed Series | $16 \times 8$ | $15 \% / 8 \times 7^{3} / 4 \times 5$ | 220 | NA |
| FFNF05 | Multi-Purpose | $16 \times 8$ | $15^{5} / 8 \times 7 / 4 \times 5$ | 220 | 37 |

For SI: 1 inch $=25.4 \mathrm{~mm} ; 1 \mathrm{f}^{\mathrm{t}^{2}}=0.093 \mathrm{~m}^{2}$
${ }^{1}$ For under-floor ventilation only.



DIVISION: 0800 00—OPENINGS
Section: 0895 43-Vents/Foundation Flood Vents

## REPORT HOLDER:

## FLOOD FLAPS ${ }^{\circledR}$, LLC

## EVALUATION SUBJECT:

## FLOOD FLAPS ${ }^{\circledR}$ AUTOMATIC FLOOD VENTS: MODELS FFWF12; FFNF12; FFWF08; FFNF08; FFWF05; FFNF05

### 1.0 REPORT PURPOSE AND SCOPE

## Purpose:

The purpose of this evaluation report supplement is to indicate that Flood Flaps ${ }^{\circledR}$ automatic flood vents, recognized in ICC-ES master evaluation report ESR-3560, have also been evaluated for compliance with the codes noted below.

## Applicable code editions:

- 2017 Florida Building Code—Building

■ 2017 Florida Building Code—Residential

### 2.0 CONCLUSIONS

The Flood Flaps flood vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-3560, comply with the Florida Building Code-Building and the Florida Building Code-Residential, provided the design and installation are in accordance with the 2015 International Building Code ${ }^{\circledR}$ provisions noted in the master report.

Use of the Flood Flaps flood vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code—Building and the Florida Building Code—Residential.

For products falling under Florida Rule 9N-3, verification that the report holder's quality-assurance program is audited by a quality-assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the master report, reissued September 2018.

[^1]
[^0]:    "2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"

    A Subsidiary of $\begin{gathered}\text { INIERNATIONAL } \\ \text { CODE COUNCILI }\end{gathered}$

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