U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program

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

ELEVATION CERTIFICATE

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							RANCE COMPANY USE
A1. Building Owner's Name DAVID FUHRMANN & SANDRA FUHRMANN 21-76052 Policy Number:							
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 1049 FIELDSTONE DR Company NAIC							
City State ZIP Code MARCO ISLAND Florida 34145							
A3. Property Descri PARCEL ID- 576500		nd Block Numbers, Ta	x Parcel	Number, Leg	gal Description, e	tc.)	
A4. Building Use (e	.g., Residen	itial, Non-Residential,	Addition	Accessory, e	etc.) RESIDEN	ITIAL	
A5. Latitude/Longitu	ıde: Lat. 2	5°55'28.2" N	Long. 8	1°43'22.7" W	Horizonta	al Datum: NAD	1927 × NAD 1983
A6. Attach at least 2	2 photograp	hs of the building if the	e Certific	ate is being u	used to obtain floo	od insurance.	
A7. Building Diagrai	m Number	1B					
A8. For a building w	vith a crawls	pace or enclosure(s):					
a) Square foota	age of crawl	space or enclosure(s)			N/A sq ft		
b) Number of pe	ermanent flo	ood openings in the cr	awlspace	e or enclosure	e(s) within 1.0 foo	t above adjacent g	rade <u>N/A</u>
c) Total net are	a of flood or	penings in A8.b		N/A sq in	I		
d) Engineered f	flood openin	ıgs? ☐ Yes ⊠ N	10				
A9. For a building wi	th an attach	ned garage:					
a) Square foota	ge of attach	ed garage		441.00 sq ft			
b) Number of pe	ermanent flo	ood openings in the at	tached g	arage within	1.0 foot above ad	jacent grade 9	
c) Total net area	a of flood op	penings in A9.b		727.28 sq	in		
d) Engineered f	lood openin	gs? × Yes N	10				
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION B1. NFIP Community Name & Community Number B2. County Name B3. State							
CITY OF MARCO IS	-	-		B2. County Name COLLIER			B3. State Florida
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	Effe	RM Panel ective/ vised Date	B8. Flood Zone(s)	B9. Base Flood (Zone AO, u	Elevation(s) se Base Flood Depth)
12021C-0836	Н	05-16-2012	05-16-2		AE	8.0'	
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: [FIS Profile FIRM Community Determined Other/Source:							
B11. Indicate elevation datum used for BFE in Item B9: NGVD 1929 X NAVD 1988 Other/Source:							
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? 🗌 Yes 🗵 No							
Designation D	ate:		CBRS	OPA			

ELEVATION CERTIFICATE

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

IMPORTANT: In these spaces, copy the corre	FOR INSURANCE COMPANY USE						
Building Street Address (including Apt., Unit, St 1049 FIELDSTONE DR	Policy Number:						
City MARCO ISLAND		ZIP Code 34145	Company NAIC Number				
SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)							
C1. Building elevations are based on: (a) *A new Elevation Certificate will be required.	• _	Building Under Constru	uction* Finished Construction				
C2. Elevations – Zones A1–A30, AE, AH, A (Complete Items C2.a–h below according	with BFE), VE, V1–V30, V (wit	n BFE), AR, AR/A, AR	/AE, AR/A1–A30, AR/AH, AR/AO. to Rico only, enter meters.				
Benchmark Utilized: COL 14	Vertical Dat	um: NAVD 1988					
Indicate elevation datum used for the elev	vations in items a) through h) b	elow.					
☐ NGVD 1929 ※ NAVD 1988	Other/Source:						
Datum used for building elevations must b		ne BFE.					
			Check the measurement used.				
a) Top of bottom floor (including baseme	ent, crawlspace, or enclosure fl	oor)	9.5 × feet meters				
b) Top of the next higher floor			N/A ⋉ feet ☐ meters				
c) Bottom of the lowest horizontal structu	ural member (V Zones only)		N/A ⊠ feet ☐ meters				
d) Attached garage (top of slab)			7.6 × feet meters				
e) Lowest elevation of machinery or equi (Describe type of equipment and locat	ipment servicing the building		9.6 × feet meters				
f) Lowest adjacent (finished) grade next	•		7.0 ⋉ feet				
, , , , , , , , , , , , , , , , , , , ,	· .		7.5 🗵 feet 🗌 meters				
g) Highest adjacent (finished) grade next	· ,		7.5 A leet meters				
h) Lowest adjacent grade at lowest eleva structural support			N/A ⋉ feet ☐ meters				
SECTION D - SU	RVEYOR, ENGINEER, OR A	ARCHITECT CERTIF	ICATION				
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 provi	ded by a licensed land survey	or? ≚Yes □ No	Check here if attachments.				
Certifier's Name LELAND F. DySARD	License Number 3859		2 16%				
Title	Digit	ally signed by	100				
P.L.S Le			Place.				
Company Namo	Leiai	d F. DySard, #3859	Seat				
I Address	C #3950 Date	2021.02.06 0:00 -05'00'	Here				
City	State	ZIP Code	The state of the s				
NAPLES	Florida	34104					
Signature	Date 01-20-2021	Telephone (239) 404-7129	Ext.				
Copy all pages of this Elevation Certificate and a	all attachments for (1) communi	y official, (2) insurance	agent/company, and (3) building owner.				
Comments (including type of equipment and location, per C2(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.							

ELEVATION CERTIFICATE

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

IMPORTANT: In these spaces, copy the corresponding	FOR INSURANCE COMPANY USE					
Building Street Address (including Apt., Unit, Suite, and/1049 FIELDSTONE DR	or Bldg. No.) or P.O.	Route and Box No.	Policy Number:			
•		ZIP Code 34145	Company NAIC Number			
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) isb) Top of bottom floor (including basement,		feet _ meter				
crawlspace, or enclosure) is E2. For Building Diagrams 6–9 with permanent flood op	enings provided in Se					
the next higher floor (elevation C2.b in the diagrams) of the building is		feet meter				
E3. Attached garage (top of slab) is		feet _ meter	s above or below the HAG.			
E4. Top of platform of machinery and/or equipment servicing the building is		feet meter				
E5. Zone AO only: If no flood depth number is available floodplain management ordinance? Yes			cordance with the community's certify this information in Section G.			
SECTION F – PROPERTY OWN	ER (OR OWNER'S R	EPRESENTATIVE) CE	RTIFICATION			
The property owner or owner's authorized representative community-issued BFE) or Zone AO must sign here. The	e who completes Sec e statements in Section	tions A, B, and E for Zoons A, B, and E are cor	ne A (without a FEMA-issued or rect to the best of my knowledge.			
Property Owner or Owner's Authorized Representative's	Name					
Address	City	St	ate ZIP Code			
Signature	Date	Te	lephone			
Comments						
			Check here if attachments.			

ELEVATION CERTIFICATE

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

MPORTANT: In these spaces, copy the corre	FOR INSURANCE COMPANY USE					
Building Street Address (including Apt., Unit, St 1049 FIELDSTONE DR	No. Policy Number:					
City MARCO ISLAND	State Florida	ZIP Code 34145	Company NAIC Number			
SECTIO	N G – COMMUNI	TY INFORMATION (OPTIC	DNAL)			
The local official who is authorized by law or or Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, en	Certificate. Comp					
The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)						
G2. A community official completed Section or Zone AO.	on E for a building	located in Zone A (without	a FEMA-issued or community-issued BFE)			
G3. The following information (Items G4–	·G10) is provided f	or community floodplain ma	anagement purposes.			
G4. Permit Number	G5. Date Permit Issued G6.		G6. Date Certificate of Compliance/Occupancy Issued			
G7. This permit has been issued for:	New Construction	on 🗌 Substantial Improven	nent			
G8. Elevation of as-built lowest floor (including of the building:	g basement)		☐ feet ☐ meters Datum			
G9. BFE or (in Zone AO) depth of flooding at t	the building site:		☐ feet ☐ meters Datum			
G10. Community's design flood elevation:	-		☐ feet ☐ meters Datum			
Local Official's Name		Title Floodplain	Coordinator			
Community Name		Telephone	Coordinator			
City of Marco Island						
Signature		Date				
Comments (including type of equipment and loc	cation, per C2(e), i	f applicable)				
REVIE	WED					
		t 8:40 am, Feb 09, 20	21			
			Check here if attachments.			

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy	FOR INSURANCE COMPANY USE		
Building Street Address (including Ap 1049 FIELDSTONE DR	Policy Number:		
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

Photo Two Caption LEFT SIDE VIEW PHOTO DATE: 01-20-2021.

Clear Photo Two

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.				
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 1049 FIELDSTONE DR				
State	ZIP Code	Company NAIC Number		
	Jnit, Suite, and/or Bldg. No.)	Jnit, Suite, and/or Bldg. No.) or P.O. Route and Box No. State ZIP Code		

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

Photo Four Caption VENT VIEW PHOTO DATE: 01-20-2021.

Clear Photo Four Form Page 6 of 6





ICC-ES Evaluation Report

ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org

ESR-3560

Reissued 09/2018 This report is subject to renewal 09/2019.

DIVISION: 08 00 00—OPENINGS

SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

REPORT HOLDER:

FLOOD FLAPS®, LLC

EVALUATION SUBJECT:

FLOOD FLAPS® AUTOMATIC FLOOD VENTS: MODELS FFWF12; FFNF12; FFWF08; FFNF08; FFWF05; FFNF05

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically



report, or as to any product covered by the report.

"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"



addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this





ICC-ES Evaluation Report

ESR-3560

Reissued September 2018

This report is subject to renewal September 2019.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS

Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

FLOOD FLAPS®, LLC

EVALUATION SUBJECT:

FLOOD FLAPS® 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® (IBC)
- 2018, 2015, 2012 and 2009 International Residential Code® (IRC)

Properties evaluated:

- Physical operation
- Water flow
- Weathering

2.0 USES

Flood Flaps[®] 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[®] 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[®] automatic FV.

3.2 Engineered Opening:

The Flood Flaps[®] 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 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Flood Flaps[®] automatic FVs must be installed in accordance with Section 4.0.

3.3 Flood Vent Series Models:

Flood Flaps[®] 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[®] 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 m²) of net free opening to supply natural ventilation for under-floor ventilation. Flood Flaps[®] 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® 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® 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® 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 m²) 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[®] 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[®] 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[®] 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[®] 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®, 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 (W X H X D) (inches)	ENCLOSED AREA COVERAGE (ft²)	NET FREE AREA OPENING ¹ (in ²)
FFWF12	Sealed Series	16 x 8	15 ⁵ / ₈ X 7 ³ / ₄ X 12	220	NA
FFNF12	Multi-Purpose	16 x 8	15 ⁵ / ₈ X 7 ³ / ₄ X 12	220	37
FFWF08	Sealed Series	16 x 8	$15^{5}/_{8} \times 7^{3}/_{4} \times 8$	220	NA
FFNF08	Multi-Purpose	16 x 8	$15^{5}/_{8} \times 7^{3}/_{4} \times 8$	220	37
FFWF05	Sealed Series	16 x 8	$15^{5}/_{8} \times 7^{3}/_{4} \times 5$	220	NA
FFNF05	Multi-Purpose	16 x 8	$15^{5}/_{8} \times 7^{3}/_{4} \times 5$	220	37

For **SI**: 1 inch = 25.4 mm; 1 f^{t2} = 0.093 m^2

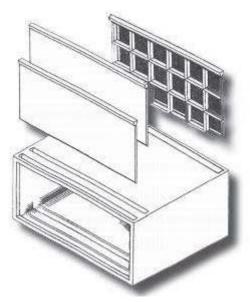


FIGURE 1—FLOOD FLAPS® AUTOMATIC FLOOD VENT

¹For under-floor ventilation only.



FIGURE 2—FLOOD FLAPS® AUTOMATIC FLOOD VENT SERIES MODELS



FIGURE 3—FLOOD FLAPS® AUTOMATIC FLOOD VENTS MULTIPLE DEPTH OFFERINGS



ICC-ES Evaluation Report

ESR-3560 FBC Supplement

Reissued September 2018
This report is subject to renewal September 2019.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS

Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

FLOOD FLAPS®, LLC

EVALUATION SUBJECT:

FLOOD FLAPS® 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[®] 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* 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.

