# 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 INFORM	ATION	FOR INSUR	ANCE COMPANY USE
A1. Building Owner's Name			per:
James and Catherine Lawler			_ ' //_ P P
<ul> <li>A2. Building Street Address (including Apt., Unit, Suite, and/or f Box No.</li> <li>1637 Idie Lane</li> </ul>	Bldg. No.) or P.O. Route and	Company N	AIC Number:
City	State	ZIP Code	
Sarasota	Florida	34231	: 2 T L "
A3. Property Description (Lot and Block Numbers, Tax Parcel N	Number, Legal Description, etc.	)	
Sarasota PID #0109030012 Long legal BEG AT SW COR OF S	TICKNEY PT RD & TAMIAMI T	R ROW TH SWLY	ALG SLY
A4. Building Use (e.g., Residential, Non-Residential, Addition, A	Accessory, etc.) ACCESSOI	RY	
A5. Latitude/Longitude: Lat. 27°15'11.18"N Long. 82°	31'26.19'W Horizontal I	Datum: NAD 1	927 X NAD 1983
A6. Attach at least 2 photographs of the building if the Certificat	te is being used to obtain flood	insurance.	
A7. Building Diagram Number 1A	94		
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 crawispace	or enclosure(s) within 1.0 foot a	bove adjacent gra	de N/A
c) Total net area of flood openings in A8.b	N/A sq in		
d) Engineered flood openings?  Yes  No	The state of the s		
A9. For a building with an attached garage:			
a) Square footage of attached garage	520.00 sa ft		
		nont grade 2	
<ul> <li>b) Number of permanent flood openings in the attached gas</li> </ul>		bent grade 3	
c) Total net area of flood openings in A9.b	600.00 sq in		
d) Engineered flood openings? X Yes No			)¥
SECTION B - FLOOD INSURAN	ICE RATE MAP (FIRM) INFO	RMATION	
	B2. County Name		B3. State
Sarasota County 125144	Sarasota		Florida
	M Panel B8. Flood Zone(s)	B9. Base Flood E (Zone AO, use	levation(s) Base Flood Depth)
12115C 0144 F 11-04-2016 11-04-20		11	
B10. Indicate the source of the Base Flood Elevation (BFE) date	ta or base flood depth entered i	n Item B9:	
☐ FIS Profile ☑ FIRM ☐ Community Determined ☐	Other/Source:		
B11. Indicate elevation datum used for BFE in Item B9: NG	SVD 1929 X NAVD 1988 [	Other/Source:	
B12. Is the building located in a Coastal Barrier Resources Sys	stem (CBRS) area or Otherwise	Protected Area (C	DPA)? ☐ Yes ⊠ No
Designation Date:	☐ OPA		
			N.

# **ELEVATION CERTIFICATE**

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IMPORTANT: in these spaces, copy the corresp	onding information from Se	ction A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite 1637 Idle Lane	e, and/or Bldg. No.) or P.O. Ro	ute and Box No.	Policy Number:
City Sarasota	State ZIP Florida 342	Code 31	Company NAIC Number
SECTION C - BUILD	ING ELEVATION INFORMA	TION (SURVEY RE	EQUIRED)
C1. Building elevations are based on: Contact A new Elevation Certificate will be required		Iding Under Constru	ction* X Finished Construction
C2. Elevations – Zones A1–A30, AE, AH, A (with		-	AE AR/A1_A30 AR/AH AR/AO
Complete Items C2.a—h below according to Benchmark Utilized: NGS SAR 4 1980	the building diagram specified	in Item A7. In Puerti NAVD 1988 ELEV	o Rico only, enter meters.
Indicate elevation datum used for the elevati			
☐ NGVD 1929 🔀 NAVD 1988 🖂			
Datum used for building elevations must be		BFE.	
			Check the measurement used.
a) Top of bottom floor (including basement,	crawispace, or enclosure floor	·)	7.0 X feet meters
b) Top of the next higher floor			N/A X feet  meters
<ul> <li>c) Bottom of the lowest horizontal structural</li> </ul>	member (V Zones only)		N/A X feet meters
d) Attached garage (top of slab)			7.0 X feet  meters
<ul> <li>e) Lowest elevation of machinery or equipm (Describe type of equipment and location</li> </ul>	nent servicing the building in Comments)		N/A ⊠ feet ☐ meters
f) Lowest adjacent (finished) grade next to	building (LAG)		6.5 X feet  meters
g) Highest adjacent (finished) grade next to	building (HAG)		6.7 🔀 feet 🗌 meters
h) Lowest adjacent grade at lowest elevatio structural support	on of deck or stairs, including		N/A ☒ feet ☐ meters
	YEYOR, ENGINEER, OR AR	CHITECT CERTIFI	CATION
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	and the second s		□ Check here if attachments.
Certifier's Name Kenneth R. Palmer	License Number PLS #4661	*1	
	1 10 17-00 1		$\sim$ $\wedge$
Title Project Manager			Plane
Company Name Red Stake Surveyors, Inc.			
Address			- \ / \ & \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
6389 Tower Lane, Level II			
City Sarasota	State Florida	ZIP Code 34240	Vi in the second
Signature	Date 6 - 32 - 22	Telephone (941) 923-9997	Ext.
Copy all pages of this Elevation Certificate and all a		fficial, (2) insurance a	agent/company, and (3) building owner.
Comments (including type of equipment and loca A5). Measured with hand-held GPS. A9B). Engineered openings manufactured by Sr	•	0 ICC-ES Report No	SSR-2074 rated 200 sq. in per unit
REDSTAKE FN 21070325 1637 IDLE-LANE-FIN			up reacon more out in pur with

# **ELEVATION CERTIFICATE**

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

IMPORTANT: in these spaces, copy the correspond	ing information from Se	ction A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and 1637 Idle Lane	/or Bidg. No.) or P.O. Ro	ute and Box No.	Policy Number:
	State ZIP Florida 342	Code 31	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 a  a) Top of bottom floor (including basement,	idjacent grade (LAG).		
crawlspace, or enclosure) is  b) Top of bottom floor (including basement, crawlspace, or enclosure) is		☐ feet ☐ meter	
E2. For Building Diagrams 6–9 with permanent flood of the next higher floor (elevation C2.b in	penings provided in Section	on A Items 8 and/or	9 (see pages 1–2 of Instructions),
the diagrams) of the building is  E3. Attached garage (top of slab) is		☐ feet ☐ meter	
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	e, is the top of the bottom No  Unknown. The	floor elevated in acc	cordance with the community's
SECTION F - PROPERTY OWN	IER (OR OWNER'S REP	RESENTATIVE) CE	RTIFICATION
The property owner or owner's authorized representativ community-issued BFE) or Zone AO must sign here. The	e who completes Section	s A, B, and E for Zo	ne A (without a FEMA-issued or
Property Owner or Owner's Authorized Representative's	s Name		
Address	City	Sta	ate ZIP Code
Signature	Date	Tel	ephone
Comments			
Ø.			
			Check here if attachments.

# **ELEVATION CERTIFICATE**

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

MPORTANT: In these spaces, copy the corresponding information from Section A. FOR INSURANCE COMPANY USE					
Building Street Address (including Apt., Unit, Suite, and/or 1637 Idle Lane	Bldg. No.) or P.O. Route and B	ox No. Policy Number:			
City Star Sarasota Flor		Company NAIC Number			
SECTION G - CO	MMUNITY INFORMATION (OP	TIONAL)			
The local official who is authorized by law or ordinance to Sections A, B, C (or E), and G of this Elevation Certificate used in Items G8-G10. In Puerto Rico only, enter meters.	. Complete the applicable item(s	dplain management ordinance can complete ) and sign below. Check the measurement			
G1. The information in Section C was taken from oth engineer, or architect who is authorized by law to data in the Comments area below.)	ner documentation that has been o certify elevation information. (I	signed and sealed by a licensed surveyor, ndicate the source and date of the elevation			
G2. A community official completed Section E for a to or Zone AO.	building located in Zone A (witho	ut a FEMA-issued or community-issued BFE)			
G3. The following information (Items G4–G10) is pro	ovided for community floodplain r	nanagement purposes.			
G4. Permit Number G5. Date	Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued			
G7. This permit has been issued for:	struction  Substantial Improve	ement			
G8. Elevation of as-built lowest floor (including basement of the building:	)	feet meters Datum			
G9. BFE or (in Zone AO) depth of flooding at the building	site:	feet meters Datum			
G10. Community's design flood elevation:		feet meters Datum			
Local Official's Name	Title				
Community Name	Telephone				
Signature	Date				
Comments (including type of equipment and location, per C	C2(e), if applicable)				
	·				
		H			
		☐ 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, c	opy the corresponding information	on 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. 1637 Idle Lane			Policy Number:
City	State	ZIP Code	Company NAIC Number
Sarasota	Florida	34231	

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 PHOTO TAKEN ON JUNE 2, 2022

Clear Photo One



Photo Tw

Photo Two Caption VENT PHOTO TAKEN ON JUNE 2, 2022

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.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 1637 Idle Lane			Policy Number:
City Sarasota	State Florida	ZIP Code 34231	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 Caption REAR PHOTO TAKEN ON JUNE 2, 2022

Clear Photo Three

**Photo Four** 

\_\_\_\_\_

**Photo Four Caption** 

Clear Photo Four

Photo Four



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# **ICC-ES Evaluation Report**

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

**ESR-2074** 

Reissued 02/2021 Revised 04/2021 This report is subject to renewal 02/2023.

DIVISION: 08 00 00—OPENINGS
SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

## **REPORT HOLDER:**

**SMART VENT PRODUCTS, INC.** 

#### **EVALUATION SUBJECT:**

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514 FLOOD VENT SEALING KIT #1540-526



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

A Subsidiary of CODE COUNCIL

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# **ICC-ES Evaluation Report**



# **ESR-2074**

Reissued February 2021 Revised April 2021 This report is subject to renewal February 2023.

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS

Section: 08 95 43-Vents/Foundation Flood Vents

REPORT HOLDER:

**SMART VENT PRODUCTS, INC.** 

**EVALUATION SUBJECT:** 

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514 FLOOD VENT SEALING KIT #1540-526

#### 1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012, 2009 and 2006 International Building Code® (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 International Residential Code® (IRC)
- 2021, 2018 International Energy Conservation Code® (IECC)
- 2013 Abu Dhabi International Building Code (ADIBC)†

<sup>†</sup>The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

## Properties evaluated:

- Physical operation
- Water flow

#### **2.0 USES**

The Smart Vent® units are engineered mechanically operated flood vents (FVs) employed to equalize hydrostatic pressure on walls of enclosures subject to rising or falling flood waters. Certain models also allow natural ventilation.

## 3.0 DESCRIPTION

#### 3.1 General:

When subjected to rising water, the Smart Vent® FVs internal floats are activated, then pivot open to allow flow in either direction to equalize water level and hydrostatic pressure from one side of the foundation to the other. The FV pivoting door is normally held in the closed position by a buoyant release device. When subjected to rising water, the buoyant release device causes the unit to unlatch, allowing the door to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is

fabricated from stainless steel. Smart Vent® Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. The SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 units each contain two vertically arranged openings per unit.

#### 3.2 Engineered Opening:

The FVs comply with the design principle noted in Section 2.7.2.2 and Section 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)] for a maximum rate of rise and fall of 5.0 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Smart Vent FVs must be installed in accordance with Section 4.0.

#### 3.3 Ventilation:

The SmartVENT® Model #1540-510 and SmartVENT® Overhead Door Model #1540-514 both have screen covers with ¹/₄-inch-by-¹/₄-inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm²) of net free area to supply natural ventilation. The SmartVENT® Stacking Model #1540-511 consists of two Model #1540-510 units in one assembly, and provides 102 square inches (65 806 mm²) of net free area to supply natural ventilation. Other FVs described in this report do not offer natural ventilation.

#### 3.4 Flood Vent Sealing Kit:

The Flood Vent Sealing Kit Model #1540-526 is used with SmartVENT® Model #1540-520. It is a Homasote 440 Sound Barrier® (ESR-1374) insert with 21 – 2-inch-by-2-inch (51 mm x 51 mm) squares cut in it. See Figure 4.

## 4.0 DESIGN AND INSTALLATION

# 4.1 SmartVENT® and FloodVENT®:

SmartVENT® and FloodVENT® are designed to be installed into walls or overhead doors of existing or new construction from the exterior side. Installation of the vents must be in accordance with the manufacturer's instructions, the applicable code and this report. Installation clips allow mounting in masonry and concrete walls of any thickness. In order to comply with the engineered opening design principle noted in Section 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Smart Vent® 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 200 square feet (18.6 m²) of enclosed area, except that the SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 must be installed with a minimum of one FV for every 400 square feet (37.2 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305.4 mm) above the higher of the final grade or floor and finished exterior grade immediately under each opening.

#### 4.2 Flood Vent Sealing Kit

The Flood Vent Sealing Kit Model 1540-526 is used in conjunction with FloodVENT® Model #1540-520. When installed and tested in accordance with ASTM E283, the FV and Flood Vent Sealing Kit assembly have an air leakage rate of less than 0.2 cubic feet per minute per lineal foot (18.56 l/min per lineal meter) at a pressure differential of 1 pound per square foot (50 Pa) based on 12.58 lineal feet (3.8 lineal meters) contained by the Flood Vent Sealing Kit.

#### 5.0 CONDITIONS OF USE

The Smart Vent® FVs 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 Smart Vent® 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 Smart Vent® FVs must not be used in the 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**

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised February 2021).
- 6.2 Test report on air infiltration in accordance with ASTM E283.

## 7.0 IDENTIFICATION

- 7.1 The Smart VENT® models and the Flood Vent Sealing Kit described in this report must be identified by a label bearing the manufacturer's name (Smartvent Products, Inc.), the model number, and the evaluation report number (ESR-2074).
- 7.2 The report holder's contact information is the following:

SMART VENT PRODUCTS, INC. 430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071 (877) 441-8368 www.smartvent.com info@smartvent.com

TABLE 1-MODEL SIZES

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)
FloodVENT®	1540-520	15 <sup>3</sup> / <sub>4</sub> " × 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT®	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT® Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT®	1540-570	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Stacker	1540-511	16" X 16"	400
FloodVent® Stacker	1540-521	16" X 16"	400

For SI: 1 inch = 25.4 mm; 1 square foot = m<sup>2</sup>

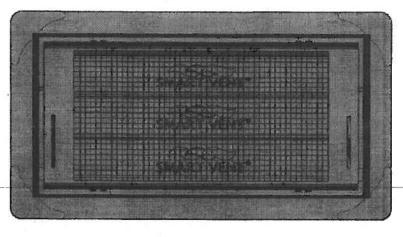


FIGURE 1—SMART VENT: MODEL 1540-510

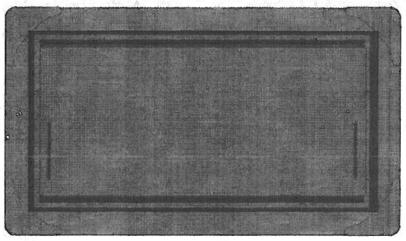


FIGURE 2—SMART VENT MODEL 1540-520

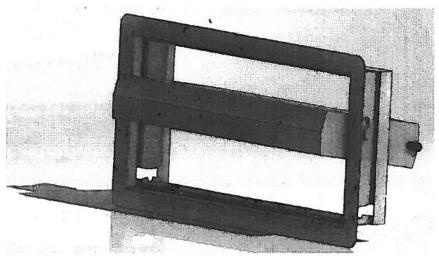


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

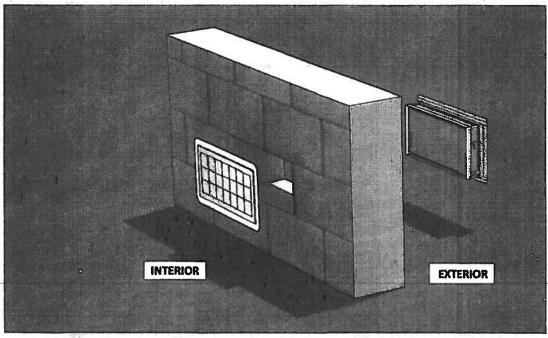


FIGURE 4—FLOOD VENT SEALING KIT



# **ICC-ES Evaluation Report**

# **ESR-2074 FBC Supplement**

Reissued February 2021 Revised April 2021 This report is subject to renewal February 2023.

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS

Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

**SMART VENT PRODUCTS, INC.** 

**EVALUATION SUBJECT:** 

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514 FLOOD VENT SEALING KIT #1540-526

#### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, described in ICC-ES evaluation report ESR-2074, have also been evaluated for compliance with the codes noted below.

#### Applicable code editions:

- 2020 Florida Building Code—Building
- 2020 Florida Building Code—Residential

#### 2.0 CONCLUSIONS

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074. comply with the Florida Building Code—Building and the Florida Building Code-Residential, provided the design requirements are determined in accordance with the Florida Building Code-Building or the Florida Building Code-Residential, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-2074 for 2018 International Building Code® meet the requirements of the Florida Building Code-Building or the Florida Building Code-Residential, as applicable.

Use of the Smart Vent® Automatic Foundation 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 61G20-3, 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 evaluation report, reissued February 2021 and revised April 2021.

