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

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### ELEVATION CERTIFICATE

## IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

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: Naomi A. Muselman & Roger Muselman	Policy Number:		
A2. 40	Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: 11 Gulf of Mexico Drive	Company NAIC Number:		
City	: Longboat Key State: FL	ZIP Code: 34228		
A3. Me	Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Nun tes & Bounds Section 06, Township 36S, Range 17E Manatee County PID# 00020500	nber: 02		
A4.	Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.): Residential			
A5.	Latitude/Longitude: Lat. 27.386999° Long82.640559° Horiz. Datum:	NAD 1927 🛛 NAD 1983 🗌 WGS 84		
A6.	Attach at least two and when possible four clear color photographs (one for each side) of the bu	uilding (see Form pages 7 and 8).		
A7.	Building Diagram Number: 6 🖌			
A8.	For a building with a crawlspace or enclosure(s):			
	a) Square footage of crawlspace or enclosure(s): 993 sq. ft.			
	b) Is there at least one permanent flood opening on two different sides of each enclosed area?	Yes No N/A		
	<ul> <li>c) Enter number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot</li> <li>Non-engineered flood openings:</li> <li>0</li> <li>Engineered flood openings:</li> <li>10</li> </ul>	above adjacent grade:		
	d) Total net open area of non-engineered flood openings in A8.c:0 sq. in.			
e) Total rated area of engineered flood openings in A8.c (attach documentation – see Instructions):				
	f) Sum of A8.d and A8.e rated area (if applicable – see Instructions): N/A sq. ft.	RECEIVED		
A9.	For a building with an attached garage:			
	a) Square footage of attached garage: N/A sq. ft.	JAN 2 4 2024		
	b) Is there at least one permanent flood opening on two different sides of the attached garage?	Yes NoF NOBOAT KE		
	c) Enter number of permanent flood openings in the attached garage within 1.0 foot above adja Non-engineered flood openings:N/A Engineered flood openings:N/A	acent grade:		
	d) Total net open area of non-engineered flood openings in A9.c: N/A sq. in.			
	e) Total rated area of engineered flood openings in A9.c (attach documentation - see Instruction	ons): N/A sq. ft.		
	f) Sum of A9.d and A9.e rated area (if applicable – see Instructions):N/A sq. ft.			
	SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFOR	RMATION		
B1.	a. NFIP Community Name: Town of Longboat Key V B1.b. NFIP Com	munity Identification Number: 125126		
B2.	County Name: Sarasota V B3. State: FL B4. Map/Panel No.: 1	12115C0019 B5. Suffix: F		
B6.	FIRM Index Date: 11/04/2016 V B7. FIRM Panel Effective/Revised Date: 11/04/20	16 V		
B8.	Flood Zone(s): AE & VE V B9. Base Flood Elevation(s) (BFE) (Zone AO, use E	Base Flood Depth): 11' & 12'		
B1(	0. Indicate the source of the BFE data or Base Flood Depth entered in Item B9: ☐ FIS			
B1	1. Indicate elevation datum used for BFE in Item B9: 🔲 NGVD 1929 🛛 NAVD 1988 🗌 Other	/Source:		
B12	<ol> <li>Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Prote Designation Date: CBRS OPA</li> </ol>	ected Area (OPA)? 🗌 Yes 🛛 No 🗸		
B13	3. Is the building located seaward of the Limit of Moderate Wave Action (LiMWA)?	No		
EM	A Form FF-206-FY-22-152 (formerly 086-0-33) (8/23)	Form Page 2 of		

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OMB Control No. 1660-0008 Expiration Date: 06/30/2026

## ELEVATION CERTIFICATE

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4011 Gulf of Mexico Drive						
City: Longboat Key State: FL ZIP Code: 34228	Company NAIC Number:					
SECTION C - BUILDING ELEVATION INFORMATION (SURVE	Y REQUIRED)					
C1. Building elevations are based on: Construction Drawings* Building Under Constru- *A new Elevation Certificate will be required when construction of the building is complete.	uction* 🛛 Finished Construction					
<ul> <li>C2. Elevations – Zones A1–A30, AE, AH, AO, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, A99. Complete Items C2.a–h below according to the Building Diagram specified in Item A7. In Puerto Rico only, enter meters.</li> <li>Benchmark Utilized: NGS BE# GIS 086 Elev.= 5.04' Vertical Datum: NAVD 1988</li> </ul>						
Indicate elevation datum used for the elevations in items a) through h) below.						
Datum used for building elevations must be the same as that used for the BFE. Conversion factor If Yes, describe the source of the conversion factor in the Section D Comments area.	used? Yes No					
a) Top of bottom floor (including basement, crawlspace, or enclosure floor):	✓ 9.4 ⊠ feet □ meters					
b) Top of the next higher floor (see Instructions):	22.0 🛛 feet 🗌 meters					
✓ c) Bottom of the lowest horizontal structural member (see Instructions):	20.0 🛛 feet 🗌 meters					
d) Attached garage (top of slab):	✓ N/A ⊠ feet ☐ meters					
e) Lowest elevation of Machinery and Equipment (M&E) servicing the building (describe type of M&E and location in Section D Comments area):	🗸 13.4 🛛 feet 🗌 meters					
f) Lowest Adjacent Grade (LAG) next to building: 🔲 Natural 🔀 Finished	✓ 9.1					
g) Highest Adjacent Grade (HAG) next to building: 🗌 Natural 🛛 Finished	¥ 9.7 ⊠ feet □ meters					
<ul> <li>Finished LAG at lowest elevation of attached deck or stairs, including structural support:</li> </ul>	¥ 9.9 ⊠ feet □ meters					
SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CER	TIFICATION					
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized to information. I certify that the information on this Certificate represents my best efforts to interpret the false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.	by state law to certify elevation the data available. Funderstand that any					
Were latitude and longitude in Section A provided by a licensed land surveyor? X Yes No						
Check here if attachments and describe in the Comments area.	JAN 2 4 2024					
Certifier's Name: Martin S Britt License Number: PSM 5538	TOWN OF LONGBOAT KEY					
Title: Professional Surveyor & Mapper	IN S S S					
Company Name: MSB Surveying, Inc.	ATIFIC A					
Address: 536 Interstate Court						
City: Sarasota State: FL ZIP Code: 34240	THE SNO SSS SHE					
Telephone: (941) 341-9935 Ext.: Email: msb@msbsurveying.com	OF FLORE					
Signature: Martin S Britt Digitally signed by Martin S Britt Date: 2024.01.22 05:48:02 -05'00' Date: 01/03/2024						
Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance	agent/company, and (3) building owner.					
Comments (including source of conversion factor in C2; type of equipment and location per C2.e; 3 story structure on augar piles/caps with columns. Bottom floor= parking, storage & entry by field survey in State Plane, converted to decimal degrees. A8.a-f) based on 3 enclosur Vents. #2 entry/elevator- 284sq.ft., 2 Flood Vents. #3 storage- 68sq.ft., 2 Flood Vents. Fl Model #1540-520 per ICC-ES Evaluation Report ESR-2074 (See attached), rated 200sq C2.e) denotes bottom of Electric Meter Box (see Photo 4). Page 9 & 10 added for addition	and description of any attachments): ry/elevator only. A5. determined ires: #1 parking- 641sq.ft, 4 Flood lood Vents used are Smart Vent .ft. each. C2.a) denotes parking. onal photos & elevations.					

FEMA Form FF-206-FY-22-152 (formerly 086-0-33) (8/23)

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ELEVATION CERTIFICATE					
IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11					

. . .

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: FOR INSURANCE COMPANY USE								
4011 Gulf of Mexico Drive						Policy Number:		
City: Longboat Key	State:	FL	ZIP Code:	3422	28		Company NAIC	Number:
SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)								
For Zones AO, AR/AO, and A (without BFE), complete Items E1–E5. For Items E1–E4, use natural grade, if available. If the Certificate is intended to support a Letter of Map Change request, complete Sections A, B, and C. Check the measurement used. In Puerto Rico only, enter meters.								
Building measurements are based on:  A new Elevation Certificate will be required	Construction I when construct	Drawings* ction of th	Building building is	g Und comp	er Cor lete.	nstructio	n* 🗌 Finished	Construction
E1. Provide measurements (C.2.a in applic measurement is above or below the na	able Building E tural HAG and	Diagram) the LAG.	for the followi	ng ar	nd cheo	ck the ap	opropriate boxes	to show whether the
<ul> <li>a) Top of bottom floor (including basen crawlspace, or enclosure) is:</li> </ul>	nent,		🗆	feet	<b></b> י	meters	above or	below the HAG.
<ul> <li>b) Top of bottom floor (including basen crawlspace, or enclosure) is:</li> </ul>	nent,			feet	<b>—</b> 1	meters	above or	below the LAG.
E2. For Building Diagrams 6–9 with permar next higher floor (C2.b in applicable Building Diagram) of the building is:	nent flood oper	nings prov	vided in Secti	on A I feet	ltems 8	8 and/or meters	9 (see pages 1-	2 of Instructions), the
E3. Attached garage (top of slab) is:			🗆	feet		meters	above or	below the HAG.
E4. Top of platform of machinery and/or eq servicing the building is:	uipment			feet	<b></b>	meters	above or	below the HAG.
E5. Zone AO only: If no flood depth number floodplain management ordinance?	r is available, is ] Yes 🔲 N	s the top o	of the bottom	floor The lo	elevati cal off	ed in acc ficial mus	cordance with the st certify this info	e community's rmation in Section G.
SECTION F - PROPERTY OV	WNER (OR O	WNER'S	AUTHORI	ZED	REPR	RESENT	TATIVE) CERT	FICATION
The property owner or owner's authorized re sign here. The statements in Sections A. B.	epresentative w	who comp	letes Section	s A, E	3, and	E for Zo	ne A (without BF	E) or Zone AO must
Check here if attachments and describe	in the Comme	nts area.	boot of my n		ago			
Property Owner or Owner's Authorized Rep	resentative Na	me:						
Address:								
City:					State	e:	ZIP Code:	
Telephone: Ext.:	Email	:						
Signature:			Date	e:				
Comments:								
						RE	CEIVI	ED
JAN 2 4 2024								
TOWN OF LONGBOAT KEY Planning, Zoning & Building								
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FEMA Form FF-206-FY-22-152 (formerly 086-0-33) (8/23)

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## ELEVATION CERTIFICATE

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Building Street Address (including Act, Unit, Suite, and/or Bidg, No.) or B.O. Boute and Bay No.:					
4011 Gulf of Mexico Drive					
City: Longboat Key State: FL ZIP Code: 34228 Company NAIC Number:					
SECTION G - COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)					
The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Section A, B, C, E, G, or H of this Elevation Certificate. Complete the applicable item(s) and sign below when:					
G1. 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 state law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)					
G2.a. A local official completed Section E for a building located in Zone A (without a BFE), Zone AO, or Zone AR/AO, or when item E5 is completed for a building located in Zone AO.					
G2.b. A local official completed Section H for insurance purposes.					
G3. In the Comments area of Section G, the local official describes specific corrections to the information in Sections A, B, E and H.					
G4. The following information (Items G5–G11) is provided for community floodplain management purposes.					
G5. Permit Number: G6. Date Permit Issued:					
G7. Date Certificate of Compliance/Occupancy Issued:					
G8. This permit has been issued for: New Construction Substantial Improvement					
G9.a. Elevation of as-built lowest floor (including basement) of the building:					
G9.b. Elevation of bottom of as-built lowest horizontal structural member:					
G10.a. BFE (or depth in Zone AO) of flooding at the building site:					
G10.b. Community's minimum elevation (or depth in Zone AO) requirement for the lowest floor or lowest horizontal structural member:					
G11. Variance issued? Yes No If ves, attach documentation and describe in the Comments area.					
The local official who provides information in Section G must sign here. I have completed the information in Section G and certify that it is correct to the best of my knowledge. If applicable, I have also provided specific corrections in the Comments area of this section.					
Local Official's Name: Title:					
NFIP Community Name:					
Telephone: Ext.: Email:					
Address:					
City: State: ZIP Code:					
Signature: Date:					
Comments (including type of equipment and location, per C2.e; description of any attachments; and corrections to specific information in					
RECEIVED					
TOWN OF LOUIS					
Planning, Zoning & Building					

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## ELEVATION CERTIFICATE

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Building Street Address (includi				
	ing Apt., Unit, Suite, a	and/or Bldg. No.) or P.C	). Route and Box No.:	FOR INSURANCE COMPANY USE
4011 Gulf of Mexico Drive City: Longboat Key		State: FL ZI	P Code: 34228	Policy Number:      Company NAIC Number:
SECTIO	N H - BUILDING" (SURVEY NOT R	S FIRST FLOOR H	EIGHT INFORMATION	N FOR ALL ZONES ES ONLY)
The property owner, owner's a to determine the building's first nearest tenth of a foot (nearest <i>Instructions) and the approp</i> H1. Provide the height of the a) For Building Diagram floor (include above-graded crawlspaces or enclosured b) For Building Diagram higher floor (i.e., the floor enclosure floor) is: H2. Is all Machinery and Equilibrium H2 arrow (shown in the Fill Yes No SECTION I – PRO The property owner or owner's A, B, and H are correct to the indicate in Item G2.b and sign	iuthorized represent t floor height for insu- it tenth of a meter in priate Building Diag top of the floor (as in ns 1A, 1B, 3, and 5- a floors only for build floors) is: ns 2A, 2B, 4, and 6- above basement, or ipment servicing the oundation Type Diag DPERTY OWNER is authorized represe best of my knowledg Section G.	ative, or local floodpla urance purposes. Sect Puerto Rico). Referen grams (at the end of indicated in Foundation -8. Top of bottom dings with -9. Top of next rawlspace, or building (as listed in I grams at end of Section (OR OWNER'S AU intative who completes ge. Note: If the local flue	in management official m ions A, B, and I must also ace the Foundation Typ Section I Instructions) to Type Diagrams) above to the type Diagram	Analy complete Section H for all flood zones to be completed. Enter heights to the the Diagrams (at the end of Section H to complete this section. The Lowest Adjacent Grade (LAG): The meters above the LAG The meters above the LAG The meters above the LAG The meters above the LAG The meters above the floor indicated by the appropriate Building Diagram? THATIVE) CERTIFICATION The statements in Sections ficial completed Section H, they should
Check here if attachments Property Owner or Owner's Au	are provided (includ uthorized Represent	ling required photos) a ative Name:	and describe each attach	ment in the Comments area.
Check here if attachments Property Owner or Owner's At Address:	are provided (includ uthorized Represent	ling required photos) a ative Name:	ind describe each attach	ment in the Comments area.
Check here if attachments Property Owner or Owner's At Address: City:	are provided (includ uthorized Represent	ling required photos) a ative Name:	Ind describe each attachr	ment in the Comments area.
Check here if attachments Property Owner or Owner's At Address: City: Telephone:	are provided (includ uthorized Represent 	ling required photos) a ative Name: Email:	Ind describe each attach	ment in the Comments area.
Check here if attachments Property Owner or Owner's At Address: City: Telephone: Signature:	are provided (includ uthorized Represent  Ext.:	ling required photos) a ative Name: Email:	Ind describe each attachr State: Date:	ment in the Comments area.
Check here if attachments Property Owner or Owner's At Address: City: Telephone: Signature: Comments: Com	are provided (includ uthorized Represent  Ext.:	ling required photos) a ative Name: Email:	Ind describe each attachr	ment in the Comments area.

FEMA Form FF-206-FY-22-152 (formerly 086-0-33) (8/23)

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#### ELEVATION CERTIFICATE IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11 BUILDING PHOTOGRAPHS

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See Instructions for Item A6.

4011 Sulf of Mexico Drive	Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:	FOR INSURANCE COMPANY USE
<image/>	4011 Gulf of Mexico Drive           City:         Longboat Key         State:         FL         ZIP Code:         34228	Policy Number:
	Instructions: Insert below at least two and when possible four photographs showing each side of the able to take front and back pictures of townhouses/rowhouses). Identify all photographs with the da "Right Side View," or "Left Side View." Photographs must show the foundation. When flood opening close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9 to the section of the section o	ne building (for example, may only be ate taken and "Front View," "Rear View," ngs are present, include at least one o.
<image/> <image/> <text></text>	Photo One Caption: (01/03/2024) Front View	Clear Photo One
	<image/>	RECEIVED JAN 2 4 2024 TOWN OF LONGBOAT KEY Planning, Zoning & Building
Photo Two Caption: (01/03/2024) Right Side & Partial Rear View	Photo Two	

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#### ELEVATION CERTIFICATE IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11 BUILDING PHOTOGRAPHS

E	UILDING F	PHOTOGF Juation Page	RAPHS		
Building Street Address (including Apt., Unit, Suite, an 4011 Gulf of Mexico Drive	d/or Bldg. No.)	or P.O. Route	and Box No.:	FOR INSURAN	CE COMPANY USE
City: Longboat Key	State: FL	ZIP Code:	34228	<ul> <li>Policy Number:</li> <li>Company NAIC</li> </ul>	Number:
Insert the third and fourth photographs below. Identi View," or "Left Side View." When flood openings are vents, as indicated in Sections A8 and A9.	fy all photograp present, inclu	phs with the d de at least on	late taken and "Fr e close-up photog	ront View," "Rear Vie graph of representati	w," "Right Side ve flood openings or
	Pho	oto Inree			
Photo Three Caption: (01/03/2024) Left Side & R	ear View				Clear Photo Three
				Planning, Zoning & Bu	JAN 2 4 2024

FEMA Form FF-206-FY-22-152 (formerly 086-0-33) (8/23)

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**Clear Photo Four** 

OAT KEY

Photo Four

Photo Four Caption: (01/03/2024) Elevated AC=16.1, Tankless Water Heater=20.9', Pool Eq.=9.5'

## ADDITIONAL SHEET FOR PHOTOS

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(01/03/2024) 4 Smart Vents Model #1540-520 in Front View of Entry/Elevator Area





### ADDITIONAL SHEET FOR PHOTOS

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(01/03/2024) 5 Smart Vents Model #1540-520 in Rear View. 1 in Storage, 1 in Entry/elevator, 3 Parking. NOTE: 1 in Parking on NW Wall Under Elevated AC Pad not Shown





JAN 2 4 2024 TOWN OF LONGBOAT KEY Planning, Zoning & Building

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

## 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



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Most Widely Accepted and Trusted

This report is subject to renewal 02/2025.

FSR-2074

Reissued 02/2023





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### ESR-2074

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 and 2018 International Energy Conservation Code<sup>®</sup> (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<sup>®</sup> 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

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#### **Reissued February 2023**

#### This report is subject to renewal February 2025.

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 mm<sup>2</sup>) 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 mm<sup>2</sup>) 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:

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically 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 report, or as to any product covered by the report.



- 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 m<sup>2</sup>) of enclosed area, except that the SmartVENT<sup>®</sup> Stacking Model #1540-511 and FloodVENT<sup>®</sup> Stacking Model #1540-521 must be installed with a minimum of one FV for every 400 square feet (37.2 m<sup>2</sup>) 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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. 19 MANTUA ROAD MOUNT ROYAL, NEW JERSEY 08061 (877) 441-8368 www.smartvent.com info@smartvent.com

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

TABLE 1-MODEL SIZES

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



FIGURE 1-SMART VENT: MODEL 1540-510

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FIGURE 2-SMART VENT MODEL 1540-520



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



FIGURE 4-FLOOD VENT SEALING KIT



## ESR-2074 CBC and CRC Supplement

Reissued February 2023 This report is subject to renewal February 2025.

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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<sup>®</sup> Automatic Foundation Flood Vents, described in ICC-ES evaluation report ESR-2074, have also been evaluated for compliance with codes noted below.

#### Applicable code editions:

2019 California Building Code (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

2019 California Residential Code (CRC)

#### 2.0 CONCLUSIONS

2.1 CBC:

The Smart Vent<sup>®</sup> Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074, comply with 2019 CBC Chapter 12, provided the design and installation are in accordance with the 2018 *International Building Code*<sup>®</sup> (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 12 and 16, as applicable.

#### 2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

#### 2.1.2 DSA:

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

#### 2.2 CRC:

The Smart Vent<sup>®</sup> Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the evaluation report ESR-2074, comply with the 2019 CRC, provided the design and installation are in accordance with the 2018 *International Residential Code*<sup>®</sup> (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued February 2023.



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## ESR-2074 FBC Supplement

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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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code*.

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 2023.

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**Note:** The V Zone design certificate is not a substitute for the NFIP Elevation Certificate (see Fact Sheet No. 1.4, *Lowest Floor Elevation*), which is required to certify as-built elevations needed for flood insurance rating.

	<b>V ZONE DESIGN CERTIFICATE</b>		
	Name_Roger and Naomi MuselmanPolicy Number (Insurance Co. Use)		
V	Building Address of Other Description 4011 Gulf of Mexico Dr		
	Permit No. PB-21-1191 City Longboat Key State FL Zip Code 34228		
	SECTION I: Flood Insurance Rate Map (FIRM) Information		
/	Community No. 125126 Panel No. 2115C0019 Suffix_FIRM Date_FFIRM Zone(s)_AE & VE		
	SECTION II: Elevation Information Used for Design		
	[NOTE: This section documents the elevations/depths used or specified in the design – it does not document surveyed and is not equivalent to the as-built elevations required to be submitted during or after construction.]	l eleva	ations
	1. FIRM Base Flood Elevation (BFE)	12	_feet*
	2. Community's Design Flood Elevation (DFE)	15	_feet*
	A. Elevation of the Bottom of Lowest Horizontal Structure Member	20	_feet* 🕯
	4. Elevation of Lowest Adjacent Grade	9.6	_feet*
	5. Depth of Anticipated Scour/Erosion used for Foundation Design	2.5	feet
	6. Embedment Depth of Pilings of Foundation Below Lowest Adjacent Grade	44	feet
	* Indicate elevation datum used in 1-4: □ NGVD29		

### **SECTION III: V Zone Design Certification Statement**

I certify that: (1) I have developed or reviewed the structural design, plans, and specifications for construction of the abovereferenced building and (2) that the design and methods of construction specified to be used are in accordance with accepted standards of practice\*\* for meeting the following provisions:

- The bottom of the lowest horizontal structural member of the lowest floor (excluding piles and columns) is elevated to or above the BFE.
- The pile and column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due
  to the effects of the wind and water loads acting simultaneously on all building components. Water loading values used are those
  associated with the base flood\*\*\*. Wind loading values used are those required by the applicable State or local building code. The
  potential for scour and erosion at the foundation has been anticipated for conditions associated with the base flood, including
  wave action.

#### **SECTION IV: Breakaway Wall Design Certification Statement**

[NOTE. This section must be certified by a registered engineer or architect when breakaway walls are designed to have a resistance of more than 20 psf (0.96 kN/m2) determined using allowable stress design]

I certify that: (1) I have developed or reviewed the structural design, plans, and specifications for construction of breakaway walls to be constructed under the above-referenced building and (2) that the design and methods of construction specified to be used are in accordance with accepted standards of practice\*\* for meeting the following provisions:

- Breakaway wall collapse shall result from a water load less than that which would occur during the base flood\*\*\*.
- The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (see Section III).

#### **SECTION V: Certification and Seal**

This certification is to be signed and sealed by a registered professional engineer or architect authorized by law to certify structural designs. I certify the V Zone Design Certification Statement (Section III) and <u>X</u> the Breakaway Wall Design Certification Statement (Section IV, check if applicable).

Certifier's Name <u>ROBERT ROKOP</u> Title <u>ARCHITECT OF RECORD</u>	License N Company	lumber <u>AR 11049</u> Name <u>Robert Rokop Architect, LLC</u>	ARCHITE A
Address 400 Madison Drive, Suite 200 City Sarasota Signature	State_FL Date_01/23/2024	_Zip Code <u>34236</u> _Telephone <b>RECE</b> N	

JAN 2 4 2024 TOWN OF LONGBOAT KEY Planning, Zoning & Building SKNM 1-26-2024

### **CCCL ELEVATION CERTIFICATE** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

This certificate is required by section 3109 of the Florida Building Code for habitable structures built seaward of a coastal construction control line to ensure the lowest horizontal structural member of such structures is located above the local one-hundred-year storm elevation as published in the Florida Department of Environmental Protection's document titled, "One-Hundred-Year Storm Elevation Requirements for Habitable Structures Located Seaward of a Coastal Construction Control Line". The elevation of the lowest horizontal structural member is to be shown in relation to National Geodetic Vertical Datum (N.G.V.D., 1929).

NOTICE: This certificate shall be completed as part of the permitting process and submitted to the building official who will note any deficiencies and notify the permit holder of any actions necessary to bring the structure into compliance with the elevation requirement. Any deficiencies found by the building official shall be corrected by the permit holder immediately and prior to proceeding with work. Any work undertaken prior to submission of this certification shall be at the property owner's risk.

**SECTION A Property Information** PROPERTY OWNER'S NAME Roger & Naomi Muselman STREET ADDRESS (Including Apt., Unit, Suite and/or Bldg. Number) OR P.O. BOX NUMBER ۱ 4011 Gulf of Mexico Drive OTHER DESCRIPTION (Lot and Block Numbers, etc.) PID 0002050002 CITY STATE ZIP CODE Longboat Key FL 34228 SECTION B One-Hundred-Year Storm Elevation Information Pursuant to the above document, the bottom of the lowest horizontal structural member must be located at or above 1. 19.4' \_ feet N.G.V.D. (18.37' NAVD)

2. The bottom of the lowest horizontal structural member of the building is (20.0' NAVD) 21.03' feet N.G.V.D.

3. Control elevation reference mark used: Benchmark ID 157/31A BM elevation: 9.37' feet N.D.V.D.

Please refer to the diagrams on page 2 of this document for information regarding the location of the bottom of the lowest horizontal structural member.

#### SECTION C Certification

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information and be submitted to and approved by the building official prior to commencing any additional work.

I certify that the information in Sections A, B, and C on this certificate represents my best efforts to interpret the data available.

CERTIFIER'S NAME:		LICEN	SE NI MARTE.		
ROBERT ROKOP		AR 11049			
TITLE:	COMPANY NAME:		44++a		
ARCHITECT OF RECORD	ROBERT RO	ROBERT ROKOP AIA ARCHITECT, LLC			
ADDRESS;	CITY:	STATE:	ZIP CODE;		
400 MADISON DRIVE #200	SARASOTA	FL	34236		
SIGNATURE	DATE:	TELEPHONE:			
COMMENTS:			ARCHITEC		

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OKNH 1.26-2024 V

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