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

OMB No. 1660-0008 Expiration Date: November 30, 2018

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

	Otherwise	Resources System (CBRS) area or	Coastal Barrier Resol	B12. Is the building located in a
Protected Area (OPA)?   Yes   X  No			or designed total	
/Source:	X NAVD 1988 ☐ Other/Source:	N 184	sed for BFE in Item B	B11. Indicate elevation datum used for BFE in Item B9: [ ] NGVD 1929
Called to the State of State o	lepth entered in Item Bo	Base Flood Elevation (BFE) data or base flood depth entered in Item B9 ☐ Community Determined ☐ Other/Source:	Base Flood Elevation (BFE) ☐ Community Determined	B10. Indicate the source of the E
B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)	B8. Flood Zone(s) AE	B7. FIRM Panel Effective/ Revised Date 09/03/2003	B6. FIRM Index Date 08/18/2009	84. Map/Panel B5. Suffix Number G
B3. State Florida	All.	B2. County Name Pinellas	ommunity Number	B1. NFIP Community Name & Community Number Indian Rocks Beach - 125117
-	(FIRM) INFORMATION	SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION	CTION B - FLOOD I	SE
Service Transfer	The state of the s	800 st sq in cs		c) Total net area of flood openings in A9.b d) Engineered flood openings? X Yes
in the second of	oot above adjacent grac	ached garage within 1,0 fo	od openings in the att	b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade
	The Confliction with the Confliction	SQ R	ed garage: ed garage        729	<ul><li>A9. For a building with an attached garage</li><li>a) Square footage of attached garage</li></ul>
AN COLUMN TO THE PROPERTY OF T	Oalow D - 8 34584		gs? ⊠Yes □ No	d) Engineered flood openings?
A STATE OF THE STA	t arjonant kesaliyera. Last ato a moo o one	00 sq in	enings in A8.b 3,800	c) Total net area of flood openings in A8.b
	within 1.0 foot above ad	3,750 sq ft	of crawlspace or enclosure(s)	a) Square footage of crawlspace or enclosure(s) sq ft      b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent or
The Cabuelly Lowery (w	collegit and receiption	olesana Al constant see intigation	ace or endosure(s):	A8. For a building with a crawlspace or enclosure(s):
2) (JC	(opton)		8.7.3	A7. Building Diagram Number
(Optive P	to obtain flood insurance	Certificate is being used t	s of the building if the	A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.
☐ NAD 1927 🔀 NAD 1983	Datum:	Long82.84064°W	.90891°N	
C	Residential	Addition, Accessory, etc.)	iał, Non-Residential, /	A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)
15-42426-000	escription, etc.) n-PB 37, PG 59-Parcel i	n (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Twenty Second Add to Re-Revised Map of Indian Beach-PB 37, PG 59-Parcel #06-30-	d Block Numbers, Tax Second Add to Re-Re	A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Lot 2 and part of Lot 1 - Twenty Second Add to Re-Revised Map of Indian Beach-PB 37, PG 59
2IP Code 33785	∠II 33	State Florida	889 QVA9	Indian Rocks Beach
Company NAIC Number:	or P.O. Route and Co	, and/or Bldg. No.) or P.O	luding Apt., Unit, Suite মুক্তব্যক্ষ কাজ সূক্র (জন	A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) Box No. 420 Harbor Drive North
Policy Number:	Po	udi Ti Vanikasi on	M. Auletta	A1. Building Owner's Name Anthony J. Auletta, Jr. and Alicia M. Auletta
	, 2	SECTION A PRINCIPLE INFORMATION	WAY WAYOU LIKE	Pull-Pour La Na

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Form Page 1 of 6	Section Control of the Section
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**ELEVATION CERTIFICATE** IMPORTANT: In these spaces, copy the corresponding information from Section A. Benchmark: Pinellas County Map #172 (HALL C) Elev. 4.824' NGVD adjusted to Elev. 4.08' NAVD - MSL = 0.00 Commeted (including type of equipment and location, per C2(e), if applicable)
C2) a. Crawl Space C2) b. The Lowest Living Floor C2) e. The Water Heater located on the South side of the house Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. NOTE: There are 19 Smart Vents in the Crawl space and 4 in the Garage area Model #1540-510 -The Photos are the attachments Indian Rocks Beach Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner. 420 Harbor Drive North Company Name John C. Brendla & Associates, Inc. Signature) Pinellas Park Address Were latitude and longitude in Section A provided by a licensed land surveyor? 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. 4015 82nd Avenue North Surveyor John O. Brendla Certifier's Name C1. Building elevations are based on: ႙ 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. h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support g) Highest adjacent (finished) grade next to building (HAG) f) Lowest adjacent (finished) grade next to building (LAG) e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) c) Bottom of the lowest horizontal structural member (V Zones only) Datum used for building elevations must be the same as that used for the BFE. b) Top of the next higher floor \*A new Elevation Certificate will be required when construction of the building is complete. d) Attached garage (top of slab) a) Top of bottom floor (including basement, crawlspace, or enclosure floor) Indicate elevation datum used for the elevations in items a) through h) below. Benchmark Utilized: County Map #172 (Hall C) ☐ NGVD 1929 🗵 NAVD 1988 ☐ Other/Source: SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION remall ☐ Construction Drawings\* ☐ Building Under Construction\* Florida State Date 07/24/2019 Florida License Number Vertical Datum: NAVD - 1988 ZIP Code Telephone (727) 576-7546 ZIP Code 33781 × Yes N □ No <u>1</u>2 짇 5 24 ļъ о |О 12 4 67 4 8 OMB No. 1660-0008 Expiration Date: November 30, 2018 Company NAIC Number Policy Number. FOR INSURANCE COMPANY USE X Check here if attachments. Check the measurement used. X Finished Construction X feet X X X feet iteet × X feet 7-24-2019 eet eet Seal 460/ ☐ meters meters ☐ meters meters ☐ meters meters ☐ meters meters

FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

Form Page 2 of 6

#### FEMA Form 086-0-33 (7/15) **ELEVATION CERTIFICATE** 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. E4. Top of platform of machinery and/or equipment servicing the building is E3. Attached garage (top of slab) is Ŋ Building Street Address (including Apt., Unit, Suite, and/or Bidg. No.) or P.O. Route and Box No. IMPORTANT: In these spaces, copy the corresponding information from Section A. enter meters. 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, Signature Address Property Owner or Owner's Authorized Representative's Name 420 Harbor Drive North Indian Rocks Beach 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). 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? Yes No Doknown. The local official must certify this information in Section G. a) Top of bottom floor (including basement, b) Top of bottom floor (including basement, crawlspace, or enclosure) is crawlspace, or enclosure) is SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE) Replaces all previous editions. Florida Date S PRESIDENCE OF MERCHED TO PRESENT DR. CORN. 33785 ZIP Code ☐ feet ☐ meters ☐ feet ☐ meters ☐ above or ☐ below the HAG ☐ feet ☐ meters ☐ feet ☐ meters ☐ above or ☐ below the HAG ☐ feet ☐ meters State Telephone OMB No. 1660-0008 Expiration Date: November 30, 2018 Policy Number: Company NAIC Number above or below the HAG. above or below the HAG. above or below the LAG. ☐ Check here if attachments. ZIP Code Form Page 3 of 6

#### FEMA Form 086-0-33 (7/15) Comments (including type of equipment and location, per C2(e), if applicable) IMPORTANT: In these spaces, copy the corresponding information from Section A. Building Street Address (including Apt., Unit, Suite, and/or Bidg..No.) or P.O. Route and Box No. 420 Harbor Drive North **ELEVATION CERTIFICATE** Local Official's Name G9. BFE or (in Zone AO) depth of flooding at the building site: G8. G7. This permit has been issued for: G4. Permit Number 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 law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.) G10. Community's design flood elevation: <u>62</u> Community Name The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters. Indian Rocks Beach Elevation of as-built lowest floor (including basement) of the building: The following information (Items G4–G10) is provided for community floodplain management purposes. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO. SECTION G - COMMUNITY INFORMATION (OPTIONAL) ☐ New Construction ☐ Substantial Improvement G5. Date Permit Issued Replaces all previous editions. State Florida Date Telephone ZIP Code ☐ feet ☐ meters Datum ☐ feet ☐ meters ☐ feet ☐ meters G6. Date Certificate of Compliance/Occupancy Issued OMB No. 1660-0008 Expiration Date: November 30, 2018 Policy Number: Company NAIC Number FOR INSURANCE COMPANY USE ☐ Check here if attachments. Datum Datum Form Page 4 of 6

# **ELEVATION CERTIFICATE**

BUILDING PHOTOGRAPHS
See Instructions for Item A6.

OMB No. 1660-0008 Expiration Date: November 30, 2018

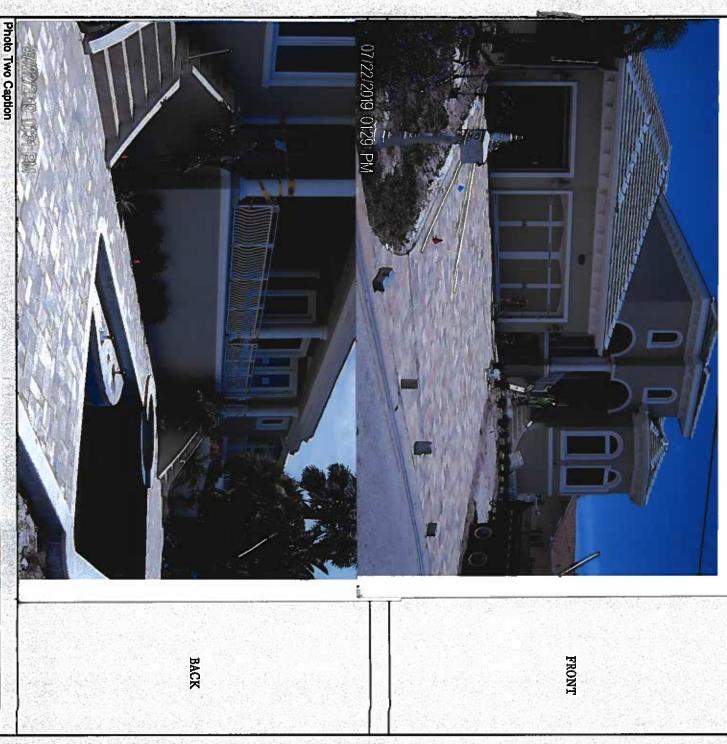
Building Street Address (including Apt., Unit, Suite, and/or Bidg. No.) or P.O. Route and Box No.

420 Harbor Drive North

City

State

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.

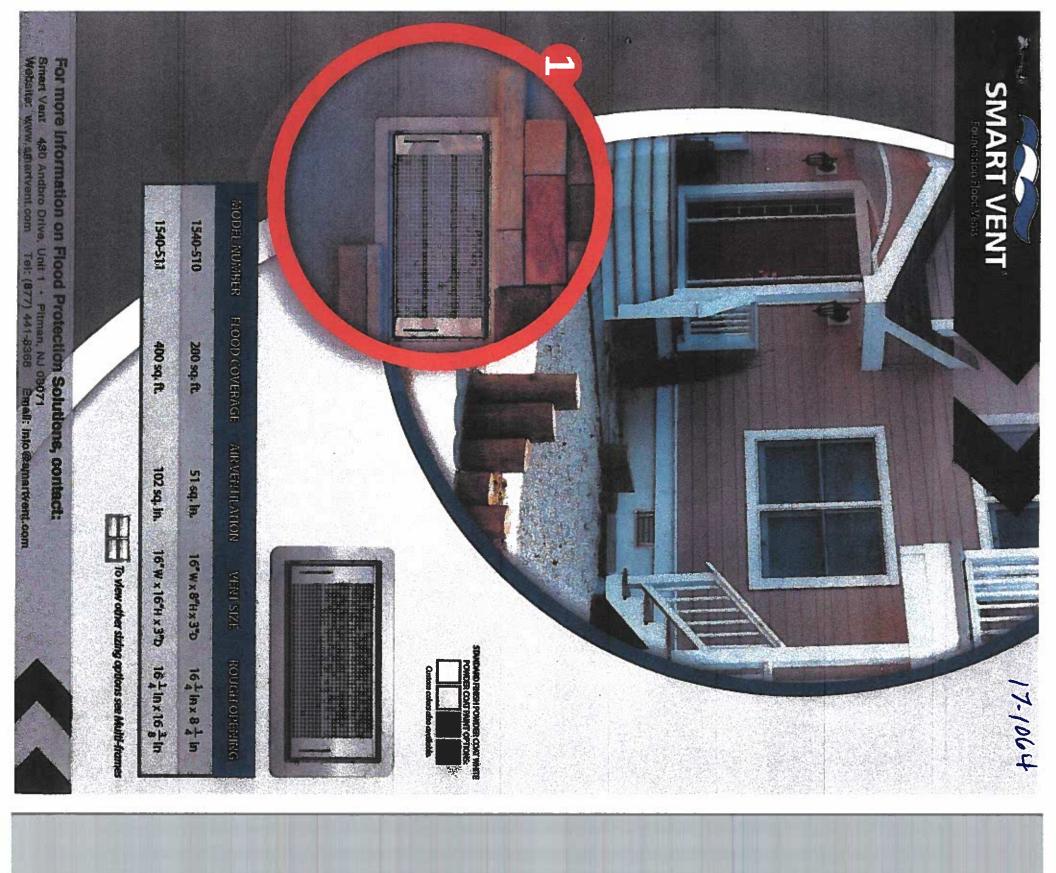


Form Page 5 of 6

FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

#### FEMA Form 086-0-33 (7/15) **ELEVATION CERTIFICATE** 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. 420 Harbor Drive North Photo Two Caption Indian Rocks Beach 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. BUILDING PHOTOGRAPHS Continuation Page Replaces all previous editions. Florida State **Photo Two** ZIP Code 33785 FOR INSURANCE COMPANY USE Policy Number: OMB No. 1660-0008 Expiration Date: November 30, 2018 Company NAIC Number Form Page 6 of 6 VENT





# UAL FUNCTION SERIES

crawispace applications and other areas requiring flood venting protection as well as natural air ventilation. natural ventilation control. Ideal for venting protection with superior automatic This series of vents offers certified flood

## VENTILATION

A bimetal coil automatically opens and closes the ventilation louvers as temperature changes from 35° F to 75° F.

No electricity is required.

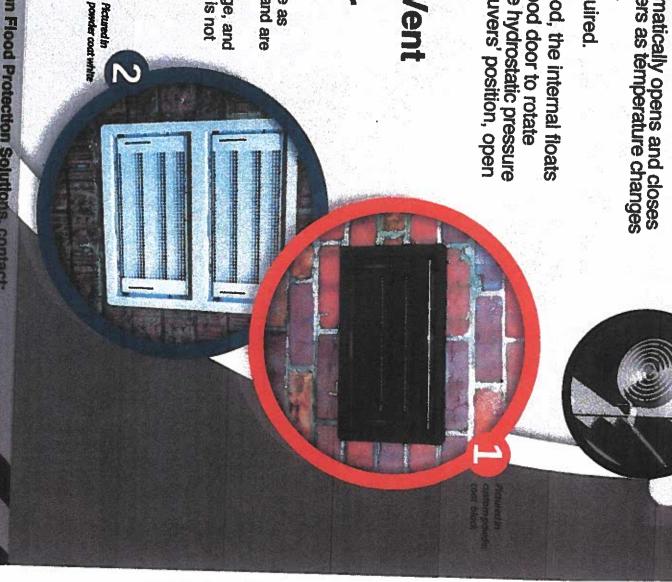
or closed. regardless of the louvers' position, open open and relieve the hydrostatic pressure lift to release the flood door to rotate In the event of a flood, the internal floats

# Smart Vent

Stacker 1540-511

in situations where there is not enough wall space to fit in the necessary or required single units. a great solution for large amounts of square footage, and efficient as a single unit and are Stacker Models are twice as







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# **ICC-ES Evaluation Report**

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

Reissued 02/2019
This report is subject to renewal 02/2021.

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

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

**EVALUATION SUBJECT:** 

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



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



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

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ICC-ES Evaluation Report

ESR-2074

This report is subject to renewal February 2021 Reissued February 2019

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A Subsidiary of the International Code Council®

Section: 08 95 43-Vents/Foundation Flood Vents DIVISION: 08 00 00—OPENINGS

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:

- 2018, 2015, 2012, 2009 and 2006 International Building (IBC)
- 2018. 2015, 2012, 2009, and 2006, International
- Residential Code (IRC)
- 'The ADIBC is based on the 2009 IBC 2009 IBC code sections referenced in this report are the same sections in the ADIBC

 2013 Abu Dhabi International Building Code (ADIBC)\* 2018 International Energy Conservation Code (IECC)

Properties evaluated:

- Physical operation
- Water flow
- 2.0 USES

natural ventilation. 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

#### 3.0 DESCRIPTION

#### 3.1 General:

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

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

### 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 must be installed in accordance with Section 4.0 hour (0.423 mm/s) In order to comply with the engineered opening requirement of ASCE/SEI 24, Smart Vent FVs IRC)) for a maximum rate of rise and fall of 5.0 feet per and

#### 3.3 Ventilation:

Model #1540-511 consists of two Model #1540-510 units in one assembly and provides 102 square inches (65 806 mm) of net free area to supply natural ventilation. Overhead Door Model #1540-514 both have screen covers with 'l<sub>3</sub>-inch-by-'l<sub>4</sub>-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<sup>®</sup> Stacking The SmartVENT Model #1540-510 and SmartVENT ventilation. Other FVs recognized in this report do not offer natural

### 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:

walfs 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: installed into walls or overhead doors of existing or new construction from the exterior side installation of the verits must be in accordance with the manufacturer's instructions the applicable code and this report SmartVENT and FloodVENT are designed to be installation clips allow mounting in masonry and concrete

- With a minimum of two openings on different sides of each enclosed area
- With a minimum of one FV for every 200 square

ICC-EST saludion Reports are not to be construct as representing aesthetics or an other attributes not specifically addressed, for are they to be construct as an independent of the subject of the expression nighted as found inding or other maker in this report, or not construct in a first point or maker in this report, or not construct or each construct or maker in this report, or not construct or necessarily or other maker in this report, or not construct or each construct or maker in this report, or not construct or necessarily or other maker in this report, or not construct or necessarily or other maker in this report, or not provide a construct or necessarily or other maker in this report, or not or necessarily or other makers in this report, or not only in the construction of the constructi







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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<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. 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.

Page 2 of 5

## 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 October 2017)
- 6.2 Test report on air infiltration in accordance with ASTM E283

### 7.0 IDENTIFICATION

- 7.1 The Smart VENT<sup>9</sup> models and the Flood Vent Sealing Kit recognized 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

TABLE 1-MODEL SIZES

400	16" × 16"	1540-521	FloodVent® Stacker
400	16" X 16"	1540-511	SmartVENT® Stacker
200 ·	14" X 83/4"	1540-574	Wood Wall FloodVENT® Overhead Door
200	14" X 834,"	1540-570	Wood Wall FloodVENT
200	153/2" X 73/2"	1540-514	SmartVENT <sup>©</sup> Overhead Door
200	15¾" X 7¾"	1540-524	FloodVENT® Overhead Door
200	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	1540-510	SmartVENT
200	15% X 73%	1540-520	FloodVENT
COVERAGE (sq. ft.)	MODEL SIZE (in.)	MODEL NUMBER	MODEL NAME

For SI: 1 inch = 25.4 mm, 1 square foot = m2

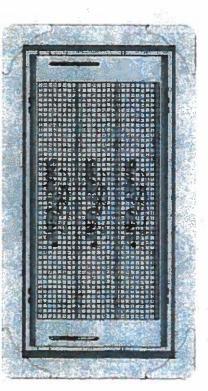
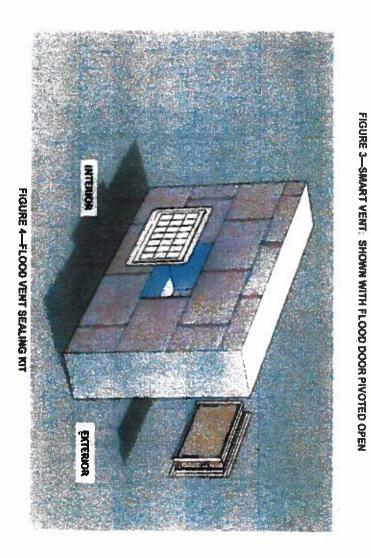
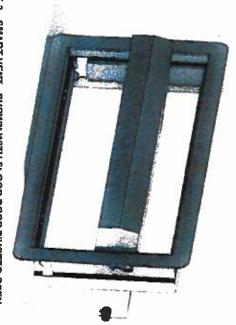
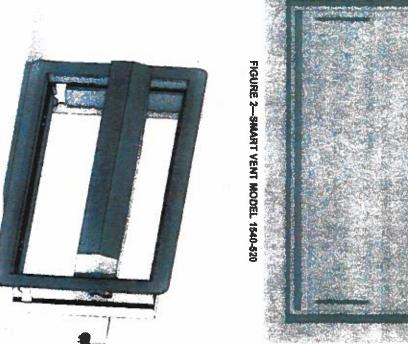
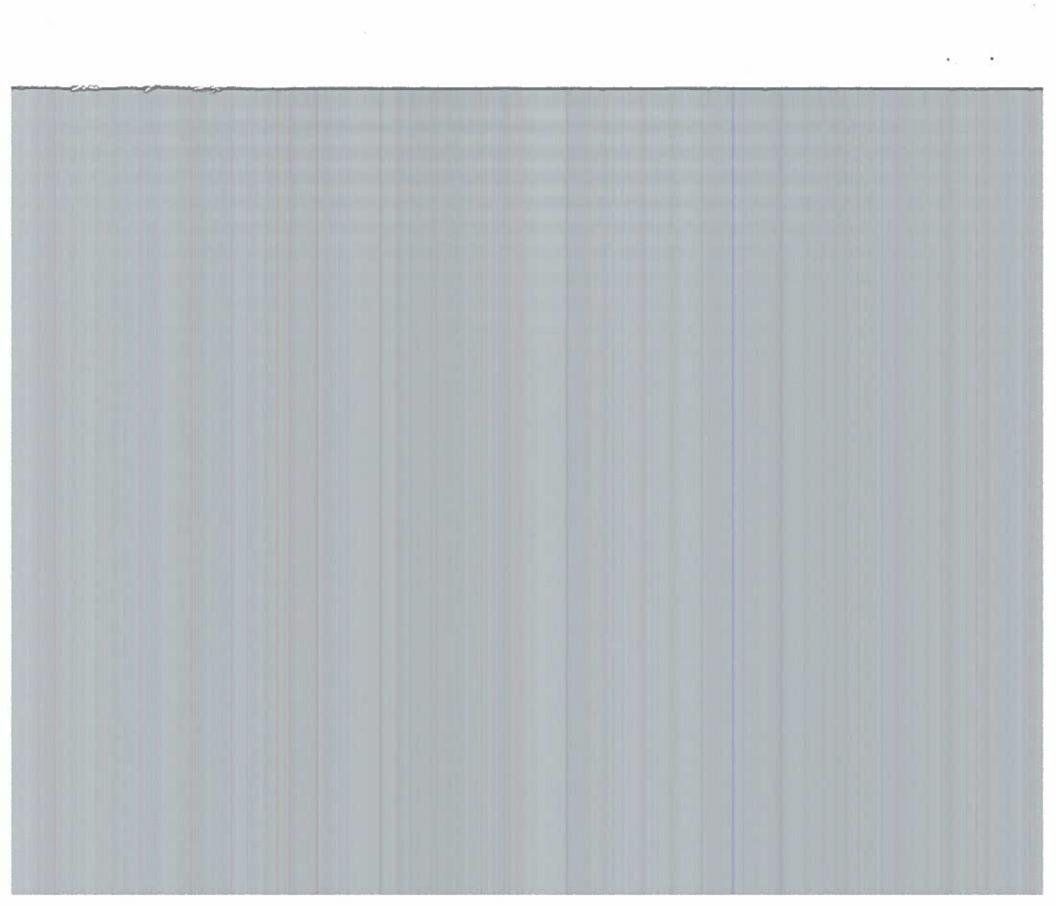


FIGURE 1-SMART VENT: MODEL 1540-510











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# **ICC-ES Evaluation Report**

# **ESR-2074 CBC and CRC Supplement**

Reissued February 2019

This report is subject to renewal February 2021.

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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, recognized in ICC-ES master evaluation report ESR-2074, have also been evaluated for compliance with codes noted below.

### Applicable code edition:

- 2016 California Building Code (CBC)
- 2016 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 master evaluation report ESR-2074, comply with 2016 CBC Chapter 12, provided the design and installation are in accordance with the 2015 *International Building Code*® (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 12, 16 and 16A, as applicable

The products recognized in this supplement have not been evaluated under CBC Chapter 7A for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

#### 2.2 CRC:

The Smart Vent® Automatic Foundation Flood Vents described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the 2016 CRC provided the design and installation are in accordance with the 2015 *International Residential Code®* (IRC) provisions noted in the master report.

The products recognized in this supplement have not been evaluated under 2016 CRC Chapter R337, for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area

The products recognized in this supplement have not been evaluated for compliance with the International Wildland-Urban Interface Code

This supplement expires concurrently with the master report, reissued February 2019.

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host Whiely Accepte

# ICC-ES Evaluation Report

# **ESR-2074 FBC Supplement**

Reissued February 2019

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This report is subject to renewal February 2021.

DIVISION: 08 00 00—OPENINGS Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

SMART VENT<sup>®</sup> AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-610; #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 Verit. Automatic Foundation Flood Verits, recognized in ICC-ES master report ESR-2074, 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 Smart Vent<sup>®</sup> Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074 comply with the *Florida Building Code—Building* and the FRC provided the design and installation are in accordance with the 2015 *International Building Code*<sup>®</sup> provisions noted in the master report

Use of the Smart Vent Automatic Foundation Flood Vents has also been found to be in compliance with the High-Vetocity 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 February 2019

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

OMB No. 1660-0008 Expiration Date: November 30, 2018

# ELEVATION CERTIFICATE Important: Follow the instructions on pages 1—9.

Policy Number:	A1. Building Owner's Name
FOR INSURANCE COMPANY USE	SECTION A - PROPERTY INFORMATION
agenizatipany, and (3) building owner.	copy an pages of this deviation certificate and an autocorrents for (1) community official, (2) insurance agent company, and

AZ Building Street Actives (including Act. Unit. Suite, and/or Bidg, No.) or P.O. Route and Company NAIC Number:  AA Building Street Actives (including Act. Unit. Suite, and/or Bidg, No.) or P.O. Route and Company NAIC Number:  404 HARBOR DRIVE N. (ANY7-168)	Form Page 1 of 6		itions	Deniaces all previous editions	20	13 (7/15)	FEMA Form 086-0-33 (7/15)
State  State  State  Folloy Number:  (JN17-169)  State  Florida  State  Florida  State  Florida  State  Florida  State  Florida  State  Florida  Tax Parcel Number, Legal Description, etc.)  Long, W82°50'13.83"  Horizontal Datum: MAD 1827   Horizontal Datum: MAD 1827   NAD 1828   NAD 1828   NAD 1828   Other/Source:  NAD 1828   Other/Source:  CERS   Other/Source:  CERS   Other/Source:  CERS   Other/Source:  CERS   Other/Source:				_			¢
State    Company NAIC Number:						Date: N/A	Designation Date: N/A
Suite, and/or Bidg. No.) or P.O. Route and  (JN17-189)  State Florids Florids State Florids Florids State Florids Florids Florids Florids State Florids	□ Yes	Protected Area (O	area or Otherwise	urces System (CBRS)	Coastal Barrier Reso	ng located in a	B12. is the building
Suite, and/or Bidg. No.) or P.O. Route and (JN17-169)  State Florida State Florida State Florida State Florida State Florida Accessory, etc.) Long V822°50′13.93" Long V822°50′13.93" Horizontal Datum:  NAD 1927 The Certificate is being used to obtain flood insurance.  1114.00 sq ft 2200.00 sq in No  1114.00 sq ft attached garage within 1.0 foot above adjacent grade 6 1200.00 sq in No  DINSURANCE RATE MAP (FIRM) INFORMATION B2. County Name PINELLAS  B8. Flood Elevation Cannel Data or base flood depth entered in Item 89:  emmined Other/Source:					sed for BFE in Item E	vation datum u	B11. Indicate elev
State   Company NAIC N.	100	n Item 89:	od depth entered i	(BFE) data or base flo mined ☐ Other/Sour	Base Flood Elevation Community Deter	source of the lile X FIRM	B10. Indicate the so ☐ FIS Profile
State   Company NAIC N   (JN17-169)   ZIP Code     Florida   State   Florida   State     Florida   State   Florida   State     Florida   State   State   State     Florida   State   State   State     Florida   State   State   State     Florida   State   State     Florida   State   State     Florida   State     Florida   State     Florida   State     Florida   State     Florida   State     State   Florida     State   Florida     State   Florida     State   Florida     Florida   State     Florida   Florida     Florida   F		10,11,12	AE	09-03-2003	08-18-2009	G	12103C0112
Suite, and/or Bidg. No.) or P.O. Route and  (JN17-169)  State Florida State Florid State Sta	evation(s) Base Flood Depth)	B9. Base Flood El (Zone AO, use	B8. Flood Zone(s)		B6. FIRM Index Date	B5. Suffix	B4. Map/Panel Number
Route and Company NAIC Number:  ZIP Code 33578  Scription, etc.)  RESIDENTIAL  Horizontal Datum: NAD 1927 obtain flood insurance.  D sq ft  D sq ft  Thin 1.0 foot above adjacent grade 11  thin 1.0 foot above adjacent grade 6	B3. State Florida	22	lame	B2. County N PINELLAS	B1. NFIP Community Name & Community Number INDIAN ROCKS BEACH 125117	unity Name & Co BEACH 125	B1. NFIP Commu INDIAN ROCKS E
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum:  NAD 1927  obtain flood insurance.  O sq ft  thin 1.0 foot above adjacent grade 11  trabove adjacent grade 6		RMATION	MAP (FIRM) INFO	NSURANCE RATE I	CTION B - FLOOD	SE	
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Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: NAD 1927 obtain flood insurance.  o sq ft thin 1.0 foot above adjacent grade 11	41		3	1200.00 sq	enings in A9.b	Total net area of flood openings in A9.b	c) Total net a
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum:  NAD 1927  obtain flood insurance.  o sq ft thin 1.0 foot above adjacent grade 11			.0 foot above adja	tached garage within 1	<ul> <li>b) Number of permanent flood openings in the at</li> </ul>	f permanent flo	b) Number of
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: [] NAD 1927 obtain flood insurance.  D sq ft thin 1.0 foot above adjacent grade 11				1114.00 sq ft	ed garage	Square footage of attached garage	a) Square for
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: NAD 1927 obtain flood insurance.  D sq ft thin 1.0 foot above adjacent grade 11					ed garage:	with an attach	A9. For a building with an attached garage
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: NAD 1927 obtain flood insurance.  o sq ft  o sq ft thin 1.0 foot above adjacent grade 11				5	X Yes □	d) Engineered flood openings?	d) Engineere
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: \( \backsquare \) NAD 1927  obtain flood insurance.  O sq ft  D sq ft  D sq ft				2200.00 sq in	c) Total net area of flood openings in A8.b	area of flood op	c) Total net a
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: \[ \] NAD 1927  obtain flood insurance.		above adjacent gra	(s) within 1.0 foot a	awispace or enclosure	od openings in the cr	f permanent flo	b) Number of
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: \[ \] NAD 1927  obtain flood insurance.			Š		a) Square footage of crawlspace or enclosure(s)	otage of crawls	a) Square fo
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: \( \backsquare \) NAD 1927  obtain flood insurance.					pace or enclosure(s):	a with a crawls	
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: \[ \] NAD 1927  obtain flood insurance.					7	nam Number	A7. Building Diagram Number
Route and Company NAIC Number:  ZIP Code 33578  scription, etc.)  RESIDENTIAL  Horizontal Datum: \( \backsquare \) NAD 1927		insurance.	sed to obtain flood	e Certificate is being u	hs of the building if th	st 2 photograpi	A6. Attach at lea
Route and Company NAIC I  ZIP Code 33578 scription, etc.)			Horizontal	Long. W82°50'13.93"	Lat. N27°54'32.41"	gitude: Lat No	A5. Latitude/Longitude:
Route and Company NAIC ( ZIP Code 33578 scription, etc.)		'IAL	1	Addition, Accessory, e	itiat, Non-Residentiat,	(e.g., Residen	A4. Building Use
Route and Company NAIC I		.)	al Description, etc	ax Parcel Number, Leg	nd Block Numbers, Ta	scription (Lot ar 2570-000-0020	A3. Property Description (Lot an PIN - 06-30-15-42570-000-0020
Route and Company NAIC	50-	ZIP Code 33578	23	State Florida		KS BEACH	City INDIAN ROCKS BEACH
Policy Number:  Route and Company NAIC i				(JN17-169)		DRIVE N.	484 HARBOR DRIVE N
	_	Company N	P.O. Route and	e, and/or Bldg. No.) or	duding Apt., Unit, Suit	et Address (inc	A2. Building Stre Box No.
	ber:	Policy Numb		EI (A	Y. SMITH	SMITH & KRISTEN Y. SMITH	A1. Building Owner's Name PATRICK L. SMITH & KRIST
SECTION A - PROPERTY INFORMATION FOR INSURANCE COMPANY USE	ANCE COMPANY USE	FOR INSUR		INFORMATION	TON A - PROPERT	SEC1	

OMB No. 1660-0008
Expiration Date: November 30, 2018

set. ) 1988). the building. A/C is lowest elevation.	Th having a design coverage area of 200 square feet.  C, having a reported elevation of 4.08 feet (NAVD 1988).  are also tankless water heaters on the left side of the building.  d seal of a Florida licensed surveyor and mapper.	ving a design cover aving a reported ele also tankless water al of a Florida licens	Abd and Abd - SmartVents Model 1540-510, each having a design coverage area of 200 square feet. C2- National Geodetic Survey benchmark HALL C, having a reported elevation of 4.08 feet (NAVD 1902) and the conditioner right side of building. There are also tankless water heaters on the left side of the NIA= Not applicable.  Not valid without the signature and original raised seal of a Florida licensed surveyor and mapper.
	able)	per C2(e), if applic	Comments (Including type of equipment and location, per C2(e), if applicable) A5-Handheld GPS checked with Google Earth. A8e and A9a-Crawspace enclosure will be used as garage and storage area.
agent/company, and (3) building owner.	unity official, (2) insurance	hments for (1) comm	Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and
Ext	Telephone (813) 388-2484	Date 07-08-2019	Signature Olivie & Shithith
	ZIP Code 33549	State Florida	City
			Address 123 FLAGSHIP DRIVE
5-6-6-6-00-00-00-00-00-00-00-00-00-00-00-	LICENSED BUSINESS NO. 8100	LICEN	Company Name ROBERTSON & ASSOCIATES SURVEYING, INC
			Title SURVEYOR AND MAPPER
	ber	License Number 6005	Certifier's Name ALVIE F. GRIFFITH
X Check here if attachments.	veyor? ⊠Yes □No	a licensed land sun	Were latitude and longitude in Section A provided by a licensed land surveyor?
y law to certify elevation information. able. I understand that any false	, or architect authorized by to interpret the dete available, Section 1001.	surveyor, engineer ants my best efforts t under 18 U.S. Coc	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.
CATION	SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION	or, engineer, o	SECTION D - SURVEY
6.10 ⊠ feet ☐ meters	ding	deck or stairs, inclu	<ul> <li>h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support</li> </ul>
6.10   ✓ feet   ✓ meters		ding (HAG)	g) Highest adjacent (finished) grade next to building (HAG)
5.50 X feet  meters		ling (LAG)	f) Lowest adjacent (finished) grade next to building (LAG)
13.43 X feet  meters		servicing the building comments)	<ul> <li>e) Lowest elevation of machinery or equipment servicing the (Describe type of equipment and location in Comments)</li> </ul>
X feet			
☐ feet		nber (V Zones only)	
		rispace, or endosur	<ul> <li>a) Top of bottom from (including passential), crawispace, or encount from</li> <li>b) Top of the next higher floor</li> </ul>
6.43 X feet meters	is floor)	denace or enclosur	
	or the BFE.	Other/Source: be the same as that used for	☐ NGVD 1929 ⊠ NAVD 1986 ☐ Other/Source:  Datum used for building elevations must be the same as that used for the BFE.
	h) below.	n items a) through l	
/AE, AR/A1-A30, AR/AH, AR/AO. to Rico only, enter meters.	–V30, V (with BFE), AR, AR/A, AR/, gram specified in Item A7. In Puerlo Vertical Datum: NAVD 1988	E), VE, V1-V30, V ( wilding diagram spe	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, Complete Items C2.a-h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.  Benchmark Utilized: HALL C Vertical Datum: NAVD 1988
	e building is complete.	quired when construction of the	*A new Elevation Certificate will be required when construction of the building is complete
lê	BUILDING ELEVATION INFORMATION (SURVEY RE	ELEVATION INFO	SECTION C -
Company NAIC Number	ZIP Code 33578	State Florida	
	C. Route and Box No.	Jor Bidg. No.) or P.: (JN17-169)	Building Street Address (including Apt., Unit, Suite, and/or Bidg. No.) or P.C. Route and Box No. 484 HARBOR DRIVE N. (JN17-169)
FOR INSURANCE COMPANY USE	m Section A.	ing information fro	IMPORTANT: In these spaces, copy the corresponding information from Section A
Expiration Date: November 30, 2018			

FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

Form Page 2 of 6

#### IMPORTANT: In these space Building Street Address (incl. 484 HARBOR DRIVE N. For Zones AO and A (withou complete Sections A, B, and ( enter meters. E1. Provide elevation inform the highest adjacent gra a) Top of bottom floor (i crawlspace, or enclo b) Top of bottom floor (i crawlspace, or enclo FEMA Form 086-0-33 (7/15 Property Owner or Owner's The property owner or own community-issued BFE) or E2. For Building Diagrams the next higher floor (e the diagrams) of the but Comments E5. Zone AO only: If no fic floodplain managemen E4. Top of platform of mac servicing the building i E3. Attached garage (top INDIAN ROCKS BEACH Signature Address SEC

Ψ,	Form Page 3 of 6	Replaces all previous editions.	5) Replace
	☐ Check here if attachments.		<b>4</b>
	i.		
V			
	5-9		
	To		100 M
			58 04
		8 0	20 50
<u></u>	Telephone	Date Te	
	State ZIP Code	City	
		0	s Authorized Representative's Name
75	ne A (without a FEMA-issued or rect to the best of my knowledge.	ner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.	er's authorized representative who Zone AO must sign here. The stat
<b>!</b>	ERTIFICATION	CTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION	TION F - PROPERTY OWNER (
#/) (2)	certify this information in Section G.	ood deptr number is available, is the top of the bottom hoor elevated in accordance with the community's int ordinance?   Yes No Dinknown. The local official must certify this information in Section G.	nt ordinance? Yes No
•	above orbelow the HAG.		15
			chinery and/or equipment
	s above or below the HAG.		of slab) is
	s ☐ above or ☐ below the HAG.	wilding is ☐ feet ☐ meters ☐ above or ☐ below the HA	ullding is
	9 (see pages 1-2 of Instructions),	s provided in Section A Items 8 and/or	6-9 with permanent flood opening
	's ☐ above or ☐ below the LAG.		closure) is
	's above or below the HAG.		closure) is
	r the elevation is above or below	rmation for the following and check the appropriate boxes to show whether the elevation is above or below grade (HAG) and the lowest adjacent grade (LAG).  Including basement	mation for the following and check rade (HAG) and the lowest adjacer rincluding basement
	a LOMA or LOMR-F request, ment used. In Puerto Rico only,	out BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, id C. For Items E1–E4, use natural grade, if available, Check the measurement used. In Puerto Rico only,	out BFE), complete Items E1–E5. It d C. For Items E1–E4, use natural
	REQUIRED)	ECTION E — BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)	CTION E - BUILDING ELEVAT
0.	Company NAIC Number	ZIP Code 33578	State Florida
	Policy Number:	(JN17-169)	icidaing Apr., Unit, Suite, and/or sing. No.) of P.O. Koute and sox No. (JN17-169)
	FOR INSURANCE COMPANY USE	ormation from Section A.	aces, copy the corresponding information from Section A.
ļi.	Expiration Date: November 30, 2018		FICATE

#### FEMA Form 086-0-33 (7/15) G1. **ELEVATION CERTIFICATE** IMPORTANT: In these spaces, copy the corresponding information from Section A. Building Street Address (including Apt., Unit, Suite, and/or Bidg. No.) or P.O. Route and Box No. 484 HARBOR DRIVE N. ဓ္ဌ G2. Comments (including type of equipment and location, per C2(e), if applicable) Community Name <u>69</u> The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters. Signature Local Official's Name G10. Community's design flood elevation: G7. This permit has been issued for: G4. Permit Number ဋ္ဌ INDIAN ROCKS BEACH BFE or (in Zone AO) depth of flooding at the building site: Elevation of as-built lowest floor (including basement) of the building: 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.) A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO. The following information (Items G4–G10) is provided for community floodplain management purposes. SECTION G - COMMUNITY INFORMATION (OPTIONAL) □ New Construction □ Substantial Improvement G5. Date Permit Issued Florida Replaces all previous editions. State Date THO H Telephone 33578 ZIP Code ☐ feet ☐ meters Datum ☐ feet ☐ meters ☐ feet ☐ meters G8. Date Certificate of Compliance/Occupancy Issued OMB No. 1660-0008 Expiration Date: November 30, 2018 FOR INSURANCE COMPANY USE Policy Number: Company NAIC Number ☐ Check here if attachments. Datum Datum Form Page 4 of 6

## **ELEVATION CERTIFICATE**

# **BUILDING PHOTOGRAPHS**

See Instructions for Item A8.

OMB No. 1660-0008 Expiration Date: November 30, 2018 FOR INSURANCE COMPANY USE Policy Number:

IMPORTANT: In these spaces, copy the corresponding information from Section A.

Building Street Address (including Apt., Unit, Suite, and/or Bidg. No.) or P.O. Route and Box No.

484 HARBOR DRIVE N.

(JN17-189) INDIAN ROCKS BEACH Florida State 33578 ZIP Code Company NAIC Number

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.

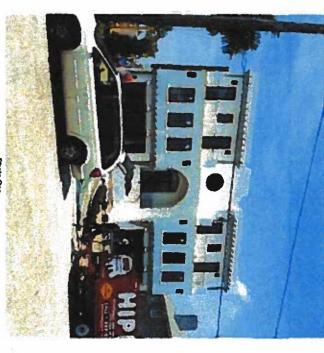


Photo One Caption FRONT (STREET) VIEW

06-27-2019

Clear Photo One

Photo Two Caption REAR VIEW 08-27-2019

FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

Photo Two

Form Page 5 of 6 Clear Photo Two

# **ELEVATION CERTIFICATE**

**BUILDING PHOTOGRAPHS** Continuation Page

OMB No. 1660-0008 Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.

Building Street Address (including Apt., Unit, Suite, and/or Bidg. No.) or P.O. Route and Box No.

484 HARBOR DRIVE N.

(JN17-168) INDIAN ROCKS BEACH Florida State ZIP Code 33578 Company NAIC Number FOR INSURANCE COMPANY USE Policy 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 RIGHT SIDE VIEW 06-27-2019

Clear Photo Three



Photo Four Caption LEFT SIDE VIEW 08-27-2019

Photo Four

Replaces all previous editions.

FEMA Form 086-0-33 (7/15)

Form Page 6 of 6

Clear Photo Four



Most Widely Accepted and Trusted

# **ICC-ES Evaluation Report**

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

ESR-2074

Reissued 02/2019
This report is subject to renewal 02/2021

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

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

**EVALUATION SUBJECT:** 

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





"2014 Reciplent of PrestIgious Western States Seismic Policy Council (WSSPC) Award in Excellence"

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

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# ICC-ES Evaluation Report

**ESR-2074** 

This report is subject to renewal February 2021. Reissued February 2019

A Subsidiary of the International Code Council

DIVISION: 08 00 00—OPENINGS
Section: 08 95 43—Vents/Foundation Flood Vents

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

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

**EVALUATION SUBJECT:** 

SMART VENT<sup>®</sup> 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:

- 2018, 2015, 2012, 2009 and 2006 International Building Code (IBC)
- **2018** 2018, 2015, 2012, 2 Residential Code (IRC) 2009 and 2006 International
- 2018 International Energy Conservation Code® (IECC)
- $^{1}\mathrm{The}$  ADIBC is based on the 2009 IBC 2009 IBC code sections referenced in this report are the same sections in the ADIBC 2013 Abu Dhabi International Building Code (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:

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. 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 When subjected to rising water, the Smart Vent® FVs internal floats are activated, then pivot open to allow flow in a buoyant release device. When subjected to rising water

> 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 Each unit is fabricated from stainless steel. Smart Vent
>
> Automatic Foundation Flood Vents are available in vertically arranged openings per unit.

### 3.2 Engineered Opening:

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. 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

#### 3.3 Ventilation:

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 Other FVs recognized in this report do not offer natural in one assembly, and provides 102 square inches (65.806 mm²) of net free area to supply natural ventilation. ventilation. with 1/4-inch-by-1/4-inch (6.35 by 6.35 mm) openings. Overhead Door Model #1540-514 both have screen covers The SmartVENT® Model #1540-510 and SmartVENT®

### 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 Barner\* (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 unstallation 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 (BC and IRC)], the Smart Verif. FVs must be installed as follows: vents must be in accordance with the manufacturer's instructions, the applicable code and this report.

- With a minimum of two openings on different sides of each enclosed area
- With a minimum of one FV for every 200 square

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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<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 teakage 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 afternatives 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\* 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.

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### 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 October 2017)
- 6.2 Test report on air infiltration in accordance with ASTM E2R3

### 7.0 IDENTIFICATION

- 7.1 The Smart VENT® models and the Flood Vent Sealing Kit recognized 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

\*\*\*W.smartvent.com
Info@smartvent.com

### TABLE 1-MODEL SIZES

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)
FloodVENT	1540-520	1531," X 731."	200
SmartVENT	1540-510	153/4" X 73/4"	200
FloodVENT® Overhead Door	1540-524	151," X 71,"	200
SmartVENT® Overhead Door	1540-514	163/4" X 73/4"	200
Wood Wall FloodVENT®	1540-570	14" X 834,"	200
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 83/4"	200
SmartVENT® Stacker	1540-511	16" X 16"	400
FloodVent® Stacker	1540-521	16" X 16"	400

For 81: 1 inch = 25 4 mm. 1 square foot = m2

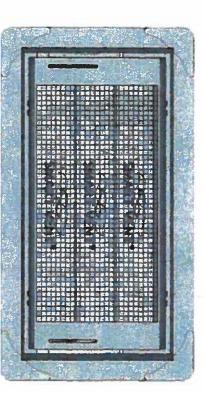
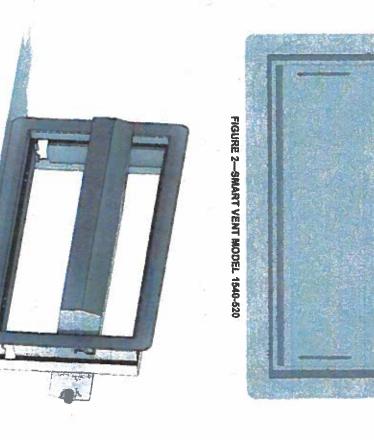
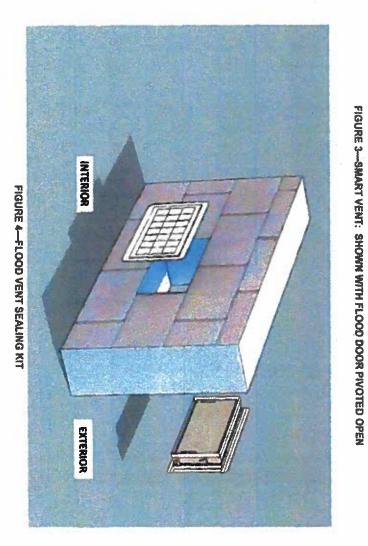


FIGURE 1—8MART VENT: MODEL 1540-510





Page 3 of 5



# **ICC-ES Evaluation Report**

# **ESR-2074 CBC and CRC Supplement**

Reissued February 2019

This report is subject to renewal February 2021.

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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

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

### Applicable code edition:

- 2016 California Building Code (CBC)
- 2016 California Residential Code (CRC)

### 2.0 CONCLUSIONS

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with 2016 CBC Chapter 12, provided the design and installation are in accordance with the 2015 International Building Code® (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 12, 16 and 16A, as applicable

The products recognized in this supplement have not been evaluated under CBC Chapter 7A for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

The Smart Vent Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the 2016 CRC, provided the design and installation are in accordance with the 2015 *International Residential Code* (IRC) provisions noted in the master report.

or any Wildland-Urban Interface Fire Area. The products recognized in this supplement have not been evaluated under 2016 CRC Chapter R337, for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas

The products recognized in this supplement have not been evaluated for compliance with the International Wildland-Urban Interface Code

This supplement expires concurrently with the master report, reissued February 2019

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# **ICC-ES Evaluation Report**

# **ESR-2074 FBC Supplement**

Reissued February 2019

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DIVISION: 08 00 00—OPENINGS
Section: 08 95 43—Vents/Foundation Flood Vents

A Subsidiary of the International Code Council®

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, recognized in ICC-ES master report ESR-2074, 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 Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the *Florida Building Code—Building* and the FRC, provided the design and installation are in accordance with the 2015 *International Building Code®* provisions noted in the master report.

Use of the Smart Verit<sup>®</sup> Automatic Foundation Flood Verits has also been found to be in compilance 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 February 2019.

It's ESS hadiate et Rejarts are not in be construct as representing as object on east adviration based post for all the subject of the construct and as an encountered of the subject of the report of a recommendation for its or as an overgound by the Established Science LEC aspects or amplied as a amount finding or other matter in this report, or as in any product consect by the report





SITE TBN ELEV=4.91" CLEARWATER SET NAIL & DISK (LB 760)
IN CONCRETE SEAWALL ANTHONY J. AULETTA, JR ALICIA M. AULETTA CERTIFIED TO: HARBOR **ALSO** D NAIL & DISK-O) ON SEAWAL FOUND N&D Point of Beginning—
NORTHWEST CORNER OF LOT 1
FOUND NAIL & DISK
(LB 760) ON SEAWALL
FENCE LINE 0.34'S. NOTE: -XX.X = EXISTING ELEVATION ~ = DRAINAGE FLOW ARROW CURVE (LB 760) ON SEAWALL IT IS MY OPINION THAT THIS
SITE WILL DRAIN SATISFACTORILY
DRAINAGE CONFORMS TO CITY
STANDARDS TYPE "B" DRAINAGE DETAIL CURVE 3-WALL-5.03 4 SURVEYOR'S NOTE: MEROUND **≠** PRC 20' CONCRETE SEAWALL FENCE 89.32'28" POOL FAUS 4. v. 1. ÷+,5,5 NOT INCLUDED Lot LOT 2 TOGETHER WITH A TRIANGULAR PORTION OF LOT 1, OF TWENTY SECOND ADDITION TO RE—REVISED MAP OF INDIAN BEACH, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 37, PAGE 59, PUBLIC RECORDS OF PINELLAS COUNTY, FLORIDA; SAID TRIANGULAR PORTION BEING DESCRIBED AS FOLLOWS: BEGIN AT THE NORTHWEST CORNER OF SAID LOT 1, AND RUN THENCE N.62°18'20" EAST ALONG THE COMMON BOUNDARY LINE OF SAID LOTS 1 AND 2, A DISTANCE OF 120 FEET TO A POINT ON THE WESTERLY BOUNDARY OF HARBOR DRIVE; THENCE SOUTHEASTERLY ALONG THE EASTERLY BOUNDARY OF LOT 1, A DISTANCE OF 20 FEET; THENCE SOUTHWESTERLY IN A DIRECT LINE TO THE POINT OF LEGAL DESCRIPTION: (OFFICIAL RECORDS BOOK 6720, PAGE 0221) Lot -6' VINTIL 24.90'(P#N ONESTEN CARAGE ELEVAS.AO
CARAGE ELEVAS.AO
CARAGE ELEVAS.AO
CARAGE ELEVAS.AO
TEADUACENT GRADE 5.00
TANDUACENT GRADE 5.00 S ယ S.71.48.43" 5.121.04.(C) N.62-18'20 E. Lot 1 SECTION 6, TOWNSHIP 30 SOUTH, RANGE 15 EAST BOUNDARY SURVEY WITH SPOT ELEVATIONS - 3/14/18 TOT II S. CONLINE STAKED BUILDING ENVELOPE - 4/02/
TIE-IN/FOUNDATION SURVEY - 4/24/
ELEVATION CERTIFICATE - 9/27/18 STAKED PROPOSED PILINGS - 3/19/18 FOUND 5/8 18 1/2 18 - 1/41E. Ū,2°E (MO 15) FINAL SURVEY ID = IDENTIFICATION
ID = IDENTIFICATION
IR = IRON ROD
LB = LICENSED BUSINESS
(M) = MEASURED
N&D = NAIL AND
(P) Q = CENTERLINE
(C) = CALCULATED
CM = CONCRETE MONUMENT
(D) = DEED
ELEV = ELEVATION ABBREVIATIONS: &M) = PLAT AND MEASURED (C = POINT OF REVERSE CURVATURE &S) = PLAT AND SET ŧę. CURVE SOUTHEASTERLY GUY STAY **\*** 18 Job Number: Drawn: " GAS METER " POWER METER " WATER METER HARBOR D : 1802-91 DS SITE TBE CURVE 2

RADIUS=320.00'(P&S)
ARC=22.87'(D),22.86'(S)
CHORD=22.87'(D),22.86'(S)
CHORD BEARING=S 26"09"39"E(D)
S 26"21"48"E(S) CURVE 1

RADIUS=71.00'(P&S)

ARC=45.46'(P),45.47'(S)

CHORD=44.68'(P),44.69'(S)

CHORD BEARING=S 09"5"57"E(P)

S 10"04'06"E(S) HARBOR DRIVE(P) BOX CUT ON CURB SAID I hereby certify that the survey represented hereon meets the requirements of Chapter 5J-17, Florida Administrative Code. T-OF-WAY RIVE NORTH ELEV=4.13' TYPE '8' CURB This survey is made for the exclusive use of the current owners of the property and also those who purchase, mortgage or guarantee the title thereto within one (1) year from latest date shown hereon. Benchmark:

PINELLAS COUNTY MAP #172 (HALL C)

ELEV=4.824' NGVD, ADJUSTED TO

ELEV=4.08' NAVD, MSL=0.00' Survey not valid without the signature and the original raised seal of a Florida Licensed Surveyor and Mapper. JOHN C. BRENDLA AND ASSOCIATES, INC. PROFESSIONAL LAND SURVEYORS AND MAPPERS This survey was prepared without the benefit of a title search and is subject to all easements, Rights-of-way, and other matters of record. phone (727) 576-7546 ~ fax (727) 577-9932 Florida Pinellas Park, Florida 33781 4015 82nd Avenue North JOHN OF BRENDLA Surveyor's Registration No. 4601 ficate of Authorization No. 760 Prepared by: FIELD BOOK \_946\_ PAGE(S) 518:52 1802-91.CRD Basis of Bearings: NORTH LINE OF LOT 2 AS BEING S.89\*32'28"E., PER PLAT. Flood Zone Data:
FLOOD ZONE AE(11)
COMMUNITY PANEL \$125117 12103C0112 G
REVISED 9/3/03 RADIUS=200.00'(P&M)
ARC=103.26'(P&M)
CHORD=102.11'(P),102.12'(M)
CHORD BEARING=N 14\*19'54"W(P)
N 14\*24'46"W(M) RADIUS=200.00'(P&M)
ARC=4.98'(P&M)
CHORD=4.98'(P&M)
CHORD BEARING=N 28\*24'30"W(P)
CHORD BEARING=N 29\*22'24"W(M) CURVE 3 SCALE: | = 20 NORTH BASIS