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

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

BLDG PERMIT PLANS FILE Copy of Record

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ELE	V	A	T	10	N	CERTIFICATE
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		ION A - PROPERTY				FOR INSURA	, and (3) building owner ANCE COMPANY USE
A1. Building Owne		ION A - PROPERTY	INFURI	ATION		Policy Numb	
SANDHOFF CONS							
A2. Building Street	Address (inc	luding Apt., Unit, Suite	e, and/or	Bldg. No.) or I	P.O. Route and	Company NA	AIC Number:
Box No. 300 ST JUDES DR	VE NORTH						
City				State		ZIP Code	
LONGBOAT K				Florida	Description	34228	
A3. Property Desc A PORTION OF LC	ription (Lot an )T 9, LONGB	nd Block Numbers, Ta OAT KEY, PLAT BOC	X Parcel DK 7, PA	GE 16, PROP	ERTY ID# 7965	5000008, M.C.R.	
A4. Building Use (	e.g., Resident	tial, Non-Residential,	Addition,	Accessory, et	c.) RESIDE	NTIAL	•
A5. Latitude/Longi	ude: Lat. 27	°25'6.03"	Long. 82	°39'16.9"	Horizont	al Datum: 🔲 NAD 19	927 🔀 NAD 1983
A6. Attach at least	2 photograph	ns of the building if the	e Certifica	ate is being us	ed to obtain flo	od insurance.	
A7. Building Diagra							
		pace or enclosure(s):					
		space or enclosure(s)		15	544.00 sq ft		
b) Number of	permanent flo	od openings in the cra	awlspace	or enclosure(	s) within 1.0 foo	ot above adjacent gra	de 12
		enings in A8.b					
		igs? 🛛 Yes 🗌 N					
A9. For a building v	with an attach	ed garage:					
a) Square foo	age of attach	ed garage		sq ft			
b) Number of	permanent flo	ood openings in the at	tached ga	arage within 1	0 foot above a	djacent grade	
		penings in A9.b		sq i			
		gs?	No	0			
d) Engineered	nood openin						
	SE	CTION B - FLOOD	INSURA	NCE RATE	MAP (FIRM) IN	IFORMATION	I
B1. NFIP Commun TOWN OF LONGE		Community Number 25126		B2. County MANATEE C			B3. State Florida
34. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	Effe	RM Panel ective/	B8. Flood Zone(s)	B9. Base Flood E (Zone AO, use	levation(s) e Base Flood Depth)
12081C0292	F	08-10-2021	08-10-2	vised Date 2021	AE	9'/10'	
		Base Flood Elevation	(REE) d	ata or base flo	od depth enter	ed in Item B9:	
BIU. Indicate the		Community Deter	mined [	Other/Sour	ce:		
						C Other/Course:	
		used for BFE in Item I					
<b>D</b> (0, 1, 1)	na located in s	a Juasial Darrier Res	001003 0	Joren (ODICO)			/ Land Hand
B12. Is the buildir Designation						AUG 2 5 2022	

ELEVATION CERTIFICATE				OMB No. Expiration		)08 November 30, 2022
IMPORTANT: In these spaces, copy the correspon	ding information	from Section A	. [	FOR INS	URANC	E COMPANY USE
Building Street Address (including Apt., Unit, Suite, a 800 ST JUDES DRIVE NORTH	nd/or Bldg. No.) or	P.O. Route and	Box No.	Policy Nu	COLUMN TO ONLY ON THE OWNER.	
City LONGBOAT KEY	State Florida	ZIP Code 34228		Company	NAICI	Number
SECTION C - BUILDING	ELEVATION INF	ORMATION (	SURVEY RE	QUIRED	)	
C1. Building elevations are based on: Const	ruction Drawings*	Building U	nder Construc	ction* [	X Finis	hed Construction
<ul> <li>*A new Elevation Certificate will be required wh</li> <li>C2. Elevations – Zones A1–A30, AE, AH, A (with B Complete Items C2.a–h below according to the</li> </ul>	FE), VE, V1-V30, V	V (with BFE). A	R. AR/A, AR/A	AE, AR/A	-A30, /	AR/AH, AR/AO. meters.
Benchmark Utilized: DP6842		al Datum: NAVD				
Indicate elevation datum used for the elevation	-	h h) below.				
NGVD 1929 X NAVD 1988 O     Datum used for building elevations must be the		for the BFE.				
					-	asurement used.
a) Top of bottom floor (including basement, cra	awispace, or enclos	ure floor)			feet	
b) Top of the next higher floor				16.0		
c) Bottom of the lowest horizontal structural me	ember (V Zones on	ly)	ala an ann a mur d'i chinn a an ann	4.1 L		meters meters
d) Attached garage (top of slab)					Jieer	
<ul> <li>e) Lowest elevation of machinery or equipmen (Describe type of equipment and location in</li> </ul>	t servicing the build Comments)	ling		16.0	feet	meters
f) Lowest adjacent (finished) grade next to bu	ilding (LAG)		n far man an a	3.9	feet	meters
g) Highest adjacent (finished) grade next to bu	ilding (HAG)			4.0	feet	meters
<ul> <li>h) Lowest adjacent grade at lowest elevation of structural support</li> </ul>	of deck or stairs, inc	luding		[	] feet	meters
SECTION D - SURVEY	OR, ENGINEER,	OR ARCHITE	CT CERTIFI	CATION		
This certification is to be signed and sealed by a lan I certify that the information on this Certificate repre- statement may be punishable by fine or imprisonme	sents my dest ettor	ts to interpret th	e data avalla	law to cel ble. I unde	tify eleverstand i	ation information. that any false
Were latitude and longitude in Section A provided b				Ch	eck her	e if attachments.
Certifier's Name ALEXANDER DUCHART	License Nur 5998	nber		0	. 1	1
Title SURVEYOR AND MAPPER	ala ay barayon dalama kata ay kata a dalama kata kata kata kata kata kata kata k			1Å	T	Soft
Company Name A DUCHART LAND SURVEYING INC				t	En o	igal
Address 2403 VERMONT AVENUE EAST					27F	ere -2022
City BRADENTON	State Florida	ZIP ( 3420	Code 08	7.	.20	-20
Signature	Date 07-20-2022	(941	phone ) 345-9891	Ext.		
Copy all pages of this Elevation Certificate and all atta	chments for (1) com	nmunity official, (	2) insurance a	agent/com	oany, ar	id (3) building owner.
Comments (including type of equipment and locatio ITEM C2(e) IS THE AIR CONDITIONER LOCATED ITEM A(5) WAS OBTAINED FROM GOOGLE EAR NOTE: THIS PROJECT IS REQUIRED TO MEET F PERMIT/PROJECT WAS ISSUED PRIOR TO NEW FLO	ON EAST SIDE O	F BUILDING O	TIONS BETWE	EN MAP F	077	
		and the second	TOWN O	FLONG	80.0	
FEMA Form 086-0-33 (12/19)	Replaces all previo	ous editions.	Plannin	ig, zoning	a Dana	Form Page 2 of 6

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ELEVATION CERTIFICATE			OMB No. 1660-0008 Expiration Date: November 30	, 2022
IMPORTANT: In these spaces, copy the correspondin	g information from Secti	on A.	FOR INSURANCE COMPAN	Y USE
Building Street Address (including Apt., Unit, Suite, and/o 800 ST JUDES DRIVE NORTH	or Bldg. No.) or P.O. Route	and Box No.	Policy Number:	
only .	ate ZIP C orida 34228		Company NAIC Number	
SECTION E - BUILDING ELE	VATION INFORMATION AO AND ZONE A (WITH	(SURVEY NO IOUT BFE)	T REQUIRED)	
For Zones AO and A (without BFE), complete Items E1– complete Sections A, B,and C. For Items E1–E4, use na enter meters.	tural grade, if available. Cr	eck the measur	rement used. In Puerto Rico only	
<ul> <li>E1. Provide elevation information for the following and of the highest adjacent grade (HAG) and the lowest ad a) Top of bottom floor (including basement,</li> </ul>	heck the appropriate boxe bjacent grade (LAG).			
crawlspace, or enclosure) is b) Top of bottom floor (including basement,		feet met		
crawlspace, or enclosure) is		feet met	_	
E2. For Building Diagrams 6–9 with permanent flood op the next higher floor (elevation C2.b in	enings provided in Section	☐ feet ☐ met		
the diagrams) of the building is E3. Attached garage (top of slab) is		feetmet		
E4. Top of platform of machinery and/or equipment servicing the building is		∏feet ∏met	ters above or below the	HAG.
E5. Zono AO only: If no flood denth number is available	, is the top of the bottom fl No 🔲 Unknown. The l	oor elevated in a ocal official mus	accordance with the community's st certify this information in Section	s on G.
SECTION F – PROPERTY OWN	ER (OR OWNER'S REPR	ESENTATIVE)	CERTIFICATION	
The property owner or owner's authorized representative community-issued BFE) or Zone AO must sign here. The	e who completes Sections e statements in Sections A	A, B, and E for 2 , B, and E are o	Zone A (without a FEMA-issued correct to the best of my knowled	or ge.
Property Owner or Owner's Authorized Representative's	Name			
Address	City		State ZIP Code	
Signature	Date	-	Telephone	
Comments				
		R	ECEIVED	
			AUG 2 5 2022	
			AUG 2 5 2027 VN OF LONGBOAT KEY Manning, Zoning & Building	

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ELEVATION CERTIFICATE			OMB No. 1660-0008 Expiration Date: November 30, 2022
IMPORTANT: In these spaces, copy the corre	sponding information	n from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Su	ite, and/or Bldg. No.) o	or P.O. Route and Box	
800 ST JUDES DRIVE NORTH	<b>U</b>		
City	State	ZIP Code	Company NAIC Number
LONGBOAT KEY	Florida	34228	
		NFORMATION (OPTIC	
The local official who is authorized by law or oro Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, ent	er meters.		
engineer, or architect who is authorize data in the Comments area below.)	ed by law to certify ele	vation information. (ind	igned and sealed by a licensed surveyor, licate the source and date of the elevation
or Zone AO.			a FEMA-issued or community-issued BFE)
G3. The following information (Items G4-	G10) is provided for co	ommunity floodplain ma	
G4. Permit Number	G5. Date Permit Iss	ued	G6. Date Certificate of Compliance/Occupancy Issued
G7. This permit has been issued for:	] New Construction	] Substantial Improven	nent
G8. Elevation of as-built lowest floor (including of the building:	g basement)		ifeet imeters Datum
G9. BFE or (in Zone AO) depth of flooding at t	the building site:		feet meters Datum
G10. Community's design flood elevation:			feet meters Datum
Local Official's Name		Title	
Community Name		Telephone	
Signature		Date	
Comments (including type of equipment and lo	cation, per C2(e), if ap	pplicable)	
			RECEIVED
			AUG 2 5 2022
			TOWN OF LONGBOAT KEN Planning, Zoning & Building
			_
			Check here if attachments.

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## **BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

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

ELEVATION CERTIFICATE See Instructions for Iten		ns for Item A6.	Expiration Date: November 30, 2022		
IMPORTANT: In these spaces, copy the co	NT: In these spaces, copy the corresponding information from Section A.				
Building Street Address (including Apt., Unit, 800 ST JUDES DRIVE NORTH	Suite, and/or Bldg. No.)	Policy Number:			
City LONGBOAT KEY	State Florida	ZIP Code 34228	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.



FRONT VIEW 05-06-2022 Photo One Caption

RECEIVED AUG 2 5 2022 TOWN OF LONGBOAT KE Planning, Zoning & Building Photo Two **Clear Photo Two** 

REAR VIEW 05-06-2022 Photo Two Caption

ELEVATION CERTIFICATE	BUILDING PHOT Continuation		OMB No. 1660-0008 Expiration Date: November 30, 2022
IMPORTANT: In these spaces, copy the corr	esponding information fr	om Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, S 800 ST JUDES DRIVE NORTH	uite, and/or Bldg. No.) or P	.O. Route and Box No.	Policy Number:
City	State Florida	ZIP Code 34228	Company NAIC Number
LONGBOAT KEY If submitting more photographs than will fit with: date taken; "Front View" and "Rear photographs must show the foundation with re	on the preceding page, af	fix the additional photogra	
Photo Three Caption FLOOD VENT 05-06-20	Photo Thre	e	Clear Photo Three
	Photo F		
			AUG 2 5 2022
			Planning, Zoning & Building
Photo Four Caption	Photo For	ur	Clear Photo Four

FEMA Form 086-0-33 (12/19)

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Form Page 6 of 6



# **BUILDING DROPS**

A Perfect Solution in Every Drop!

Certificate of Authorization: 29578



398 E. Dania Beach Blvd. Suite 338 Dania Beach, FL 33004 954.399.8478 PH 954.744.4738 FX contact@buildingdrops.com

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### **Product Evaluation Report**

of

## **Smart Vent Products, Inc.**

Insulated Flood Vent Model #1540-520 Insulated Stacked Flood Vent Model #1540-521 Dual Function Smart Vent Model #1540-510 Dual Function Stacked Smart Vent Model #1540-511 Insulated Wood Wall Flood Vent Model #1540-570

for

## Florida Product Approval

FL# FL5822

## Report No. 5022

## **Current Florida Building Code**

Method: Category: Sub – Category:

Other Sub-Category: Product: Material: Product Dimensions: 2 – B (Engineering Evaluation) Structural Components Products Introduced as a Result of New Technology Ventilation Automatic Foundation Flood Vents (AFFV) Stainless Steel See Installation Instructions

#### **Prepared For:**

Smart Vent Products, Inc. 430 Andbro Drive, Unit 1 Pitman, NJ 08071

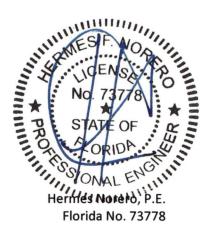
#### Prepared by:

Hermes Norero, P.E. Florida Professional Engineer # 73778 Date: 06/15/2018

Contents:

Evaluation Report Pages 1 – 3

Digitally signed by Hermes F. Norero, P.E. Reason: I am approving this document Date: 2018.06.20 07:22:36 -04'00'





**BUILDING DROPS** A Perfect Solution in Every Drop!

Certificate of Authorization: 29578

FL#:FL5822Date:06/15/2018Report No:5022

Manufacturer:		Smart Vent Products, Inc.				
Product Category:		Structural Components				
Product Sub-Ca	ategory:	Other				
Other Sub-Cate	egory:	Ventilation				
Compliance Mo	ethod:	State Product Approval Method (2)(b)				
Product Name:		Insulated Flood Vent Model #1540-520 Insulated Stacked Flood Vent Model #1540-521 Dual Function Smart Vent Model #1540-510 Dual Function Stacked Smart Vent Model #1540-511 Insulated Wood Wall Flood Vent Model #1540-570				
Scope:	Products, Inc. of Business ar Hermes Norer or distributing named herein This product h See Installatio	uct Evaluation Report issued by Hermes Norero, P.E. (FL # 73778) for <b>Smart Vent</b> based on Rule <u>Method 2b</u> of the State of Florida Product Approval, Florida Department and Professional Regulation - Florida Building Commission. ro, P.E. does not have nor will acquire financial interest in the company manufacturing g the product or in any other entity involved in the approval process of the product h. mas been evaluated for use in locations adhering to the Current Florida Building Code. on Instructions provided by Smart Vent Products, Inc., verified by Hermes Norero, P.E. or specific use parameters.				
Limits of Use:	2. Produ substr 3. When Section cover 4. Site co analys	product has been evaluated and is in compliance with the current Florida Building Code, <u>ling</u> the "High Velocity Hurricane Zone" (HVHZ). Inct anchors shall be as listed and spaced as shown on details. Anchor embedment into rate material shall be beyond wall dressing or stucco. In used in areas requiring wind borne debris protection this product complies with bon 1609.1.2 of the Florida Building Code and <u>does not</u> require an impact resistant ing. In unditions that deviate from the details of the drawings require further engineering sis by a licensed engineer or registered architect. Installation Instructions for size and design pressure limitations.				

6. Wall construction shall meet requirements of Section 1612 of the FBC as deemed technically relevant due to site conditions.

Hermes Norero, P.E. Florida No. 73778 Page 2 of 3



**BUILDING DROPS** 

A Perfect Solution in Every Drop! Certificate of Authorization: 29578

Quality Assurance:	The manufacturer has demonstrated compliance of ventilation products in accordance with the Florida Building Code for manufacturing under a quality assurance program audited by an approved quality assurance entity through <b>Architectural Testing, Inc.</b> (FBC Organization #: QUA 1844)					
Performance Standards:	<ul> <li>The product described herein has been evaluated and tested per:</li> <li>ASTM E 330-02</li> <li>ASCE 24-14</li> <li>TAS 202-94</li> </ul>					
Code Compliance:	The product described herein complies with the current FBC Section 1708.2 and the intent of the current Edition FBC Section 1612.5(1)(1.2).					
Referenced Data:	Product Testing performed by Architectural Testing, Inc.         (FBC Organization # TST1558)         Report #: 01-42966.01,       Report Date: 11/15/02         Report #: 38957.102-122-44,       Report Date: 11/16/05         Report #: 60619.01-122-47,       Report Date: 11/16/05         Report #: 61877.01-122-44,       Report Date: 01/06/06         Report #: 94135.01-109-18,       Report Date: 08/31/09         Signed and Sealed by: Michael D. Stremmel, P.E. FL # 6580	68				
	Product Testing performed by Blackwater Testing, Inc. (FBC Organization # TST10394) Report #: BT-SVP-16-001, Report Date: 01/06/17 Signed and Sealed by: Constantine Bortes, P.E. FL # 77915	i				
	Quality Assurance <b>Architectural Testing, Inc.</b> (FBC Organization #: QUA 1844)					
	ICC Evaluation Service ESR-2074: Meets requirements of AC364 Reissued February 2017 Revised November 2017					

Installation: Refer to Installation Instructions by Manufacturer for installation requirements.

**Design Pressure:** 

Design Pressures +100/-100 PSF

> Hermes Norero, P.E. Florida No. 73778 Page 3 of 3



Most Widely Accepted and Trusted

# **ICC-ES Evaluation Report**

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

# **ESR-2074**

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

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

**REPORT HOLDER:** 

## SMART VENT PRODUCTS, INC.

**EVALUATION SUBJECT:** 

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



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

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A Subsidiary of

ISO/IEC 17065 Product Certification Body #1000

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## **ICC-ES Evaluation Report**

ESR-2074 Reissued February 2021 Revised April 2021 This report is subject to renewal February 2023.

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

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

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

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fabricated from stainless steel. Smart Vent<sup>®</sup> Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. The SmartVENT<sup>®</sup> Stacking Model #1540-511 and FloodVENT<sup>®</sup> 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<sup>®</sup> Model #1540-510 and SmartVENT<sup>®</sup> Overhead Door Model #1540-514 both have screen covers with <sup>1</sup>/<sub>4</sub>-inch-by-<sup>1</sup>/<sub>4</sub>-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<sup>®</sup> 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<sup>®</sup> Model #1540-520. It is a Homasote 440 Sound Barrier<sup>®</sup> (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<sup>®</sup> and FloodVENT<sup>®</sup>:

SmartVENT<sup>®</sup> and FloodVENT<sup>®</sup> 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<sup>®</sup> FVs must be installed as follows:

With a minimum of two openings on different sides of each enclosed area.

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

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



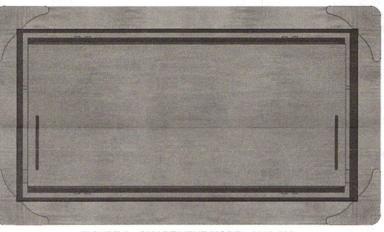


FIGURE 2-SMART VENT MODEL 1540-520



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

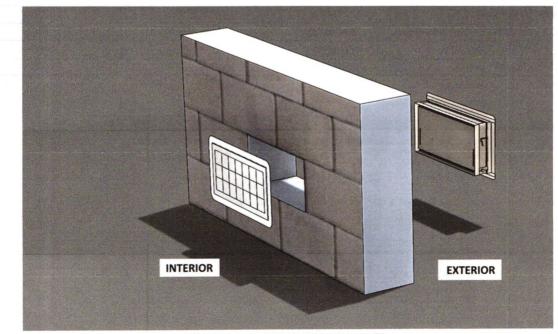


FIGURE 4—FLOOD VENT SEALING KIT



## **ICC-ES Evaluation Report**

## ESR-2074 CBC and CRC Supplement

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

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A Subsidiary of the International Code Council®

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

**REPORT HOLDER:** 

#### SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

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

#### 1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, described in ICC-ES evaluation report ESR-2074, have also been evaluated for compliance with 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) and 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 2021 and revised April 2021.

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.





## **ICC-ES Evaluation Report**

## **ESR-2074 FBC Supplement**

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

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A Subsidiary of the International Code Council®

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

#### **REPORT HOLDER:**

SMART VENT PRODUCTS, INC.

#### **EVALUATION SUBJECT:**

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

#### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

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

#### Applicable code editions:

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

#### 2.0 CONCLUSIONS

The Smart Vent<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-Residential*, as applicable.

Use of the Smart Vent<sup>®</sup> Automatic Foundation Flood Vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential*.

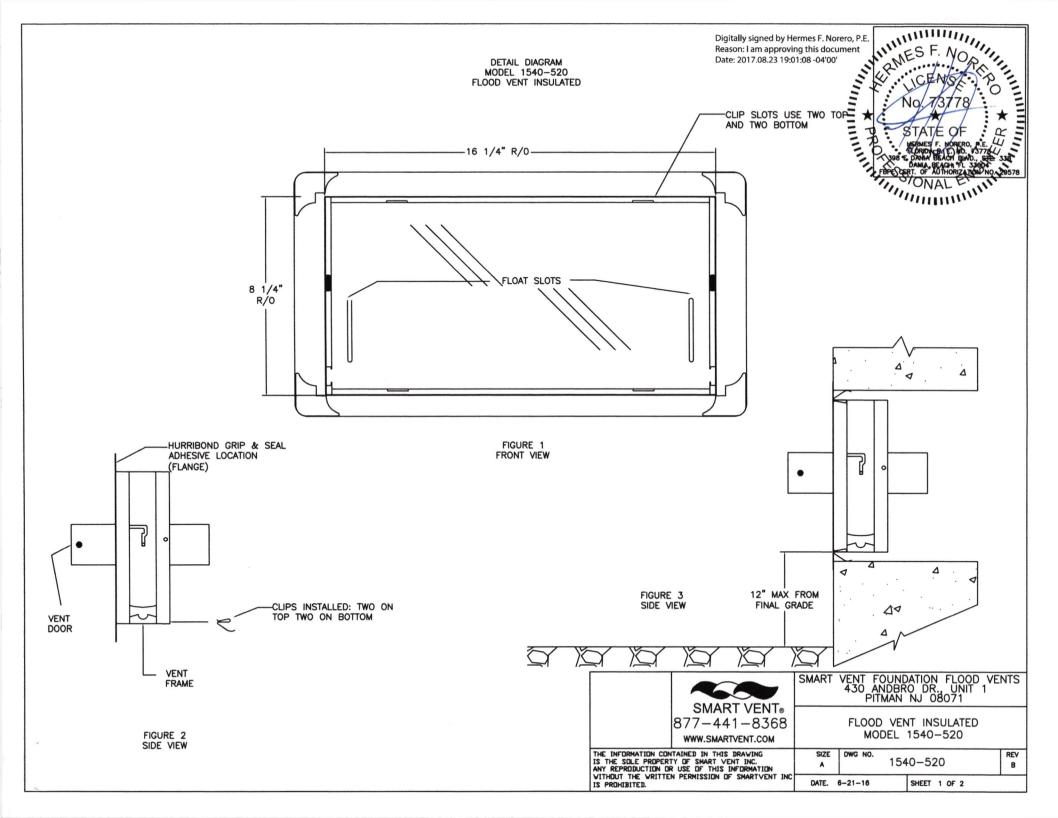
For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued February 2021 and revised April 2021.

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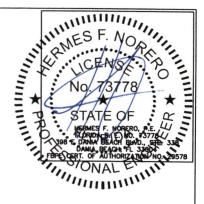


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INSTALLATION INSTRUCTIONS & DETAILS MODEL 1540-520 FLOODVENT INSULATED



#### INSTALLATION INSTRUCTIONS

- 1. REMOVE VENT DOOR FROM VENT FRAME. (TURN UPSIDE DOWN, ROTATE BOTTOM OF DOOR OUTWARD AND SLIDE OUT)
- 2. PREPARE A CLEAN 16.25" WIDE BY 8.25" HIGH ROUGH OPENING (APPROX. 1 BLOCK WIDE X 1 BLOCK HIGH) FOR EACH VENT. ENSURE THE BOTTOM OF THE ROUGH OPENING IS NO MORE THAN 12" ABOVE THE FINISHED GRADE.
- 3. APPLY A BEAD OF HURRIBOND GRIP & SEAL OR EQUIVALENT ADHESIVE AROUND THE BACK OF THE FLANGE ON THE VENT FRAME. (FIG. 2)
- 4. INSERT INSTALLATION CLIPS INTO THE TWO SLOTS ON THE TOP AND TWO SLOTS ON THE BOTTOM OF THE FRAME.
- 5. THE SPRING ARM OF THE CLIPS SHOULD BE ON THE OUTSIDE OF THE VENT FRAME. COMPRESS THE BOTTOM TWO CLIPS AND BEGIN SLIPPING THE FRAME INTO THE OPENING. ENSURE THAT THE BOTTOM CLIPS ARE IN THE OPENING BEFORE ALLOW THEM TO DECOMPRESS.
- 6. WITH THE FRAME NOW IN THE OPENING, AND THE BOTTOM SPRINGS IN PLACE, COMPRESS THE TOP SPRINGS AND PUSH THE VENT FRAME INTO THE OPENING COMPLETELY UNTIL THE FRAME IS FLUSH WITH THE WALL.
- 7. RE-CHECK THAT FRAME IS SQUARE AND SLOTS ARE CLEAR OF DEBRIS, AND CAULK.
- 8. INSTALL THE DOOR INTO FRAME BY GRASPING THE BOTTOM OF DOOR (WITH FLOAT PINS DOWN) AND FRONT (SMALL SCREEN IN FRONT). SLIDE DOOR INTO FRAME AND ROTATE UNTIL IT IS LATCHED.
- 9. TO OPEN THE DOOR INSERT TWO CREDIT CARDS INTO THE FLOAT SLOTS AS SHOWN IN THE DIAGRAM. THIS WILL UNLATCH THE DOOR FOR REMOVAL AND CLEANING.

DETAIL SPECIFICATIONS: MATERIAL: STAINLESS STEEL OPERATION: AUTOMATIC NON-POWERED ACTIVATION AND OPERATION

#### INSTALLATION:

SECURED W/ 4 STAINLESS STEEL INSTALLATION CLIPS INCLUDED AND AN ADHESIVE HYDROSTATIC RELIEF: 200 SQ. FT PER VENT REQUIREMENTS: MINIMUM OF 2 VENTS PER ENCLOSED AREA MOUNTED ON AT LEAST TWO DIFFERENT WALLS

COLORS: STAINLESS (STANDARD) EXTERIOR POWDER COATED WHITE, WHEAT, GRAY, AND BLACK (AVAILABLE)

> MEETS THE REQUIREMENTS FOR ENGINEERED OPENINGS AS SET FORTH BY: FEMA, NFIP, ICC, & ASCE SUPPORTIVE DOCUMENTS, TB 1-08, 44CFR 60.3(C)(5), ASCE 24-14 ICC EVALUATION # ESR-2074

# National Flood Hazard Layer FIRMette

💥 FEMA

## 8/25/22 Legend

