## 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.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

	FOR INSURANCE COMPANY USE		
A1. Building Owner's Name Ron & Donna Ward	Policy Number:		
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 205 Long Creek Lane	Company NAIC Number:		
City	ZIP Code		
Richmond Hill Georgia	31324		
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)  Lot 20 Long Creek Subdivision Tax Parcel Number 068 - 123			
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential			
A5. Latitude/Longitude: Lat. 31°51'33" Long081°11'46" Horizontal Datu	m: ☐ NAD 1927 ⊠ NAD 1983		
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insu	rance.		
A7. Building Diagram Number 1B			
A8. For a building with a crawlspace or enclosure(s):			
a) Square footage of crawlspace or enclosure(s) 0 sq ft			
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot abov	e adjacent grade0		
c) Total net area of flood openings in A8.b sq in			
d) Engineered flood openings? 🔲 Yes 🗵 No			
A9. For a building with an attached garage:			
a) Square footage of attached garage600sq ft			
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent	grade 3		
c) Total net area of flood openings in A9.b 600 sq in			
d) Engineered flood openings?   Yes   No			
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION			
B1. NFIP Community Name & Community Number B2. County Name	B3. State		
Unincorporated Bryan County 130016 Bryan	Georgia		
B4. Map/Panel B5. Suffix B6. FIRM Index B7. FIRM Panel Effective/	s) B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)		
13029C0400 C 03/02/2009 Revised Date 03/02/2009 AE	13.0		
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:  ☐ FIS Profile ☑ FIRM ☐ Community Determined ☐ Other/Source:			
B11. Indicate elevation datum used for BFE in Item B9: NGVD 1929 X NAVD 1988 Other/Source:			
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? 📋 Yes 🗵 No			
Designation Date: CBRS OPA			

# **ELEVATION CERTIFICATE**

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IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
			Policy Number:	
City State	ZIP (	Code	Company NAIC Number	
Richmond Hill Geor	gia 3132	4	Α	
SECTION C – BUILDING ELE	VATION INFORMAT	ION (SURVEY RE	EQUIRED)	
C1. Building elevations are based on: Construction *A new Elevation Certificate will be required when con	Drawings* Build		ction*	
1 (1) TH 97 - 97 - 494 (15) 4			AF AR/A1_A30 AR/AH AR/AO	
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, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.  Benchmark Utilized: eGPS  Vertical Datum: NAVD88				
Indicate elevation datum used for the elevations in ite	ms a) through h) below	v.		
☐ NGVD 1929  ☐ NAVD 1988  ☐ Other/So				
Datum used for building elevations must be the same	as that used for the B	FE.	Check the measurement used.	
a) Top of bottom floor (including basement, crawlspa	ce, or enclosure floor)	14. 2		
b) Top of the next higher floor	•	22, 7		
c) Bottom of the lowest horizontal structural member	(V Zones only)	N/A,	X feet  meters	
d) Attached garage (top of slab)		12. 7		
Example 2     Example 2     Example 2     Example 2     Example 2     Example 3     Example 2     Example 3     Example 3     Example 3     Example 3     Example 4	cing the building nents)	14, 2	x feet meters	
f) Lowest adjacent (finished) grade next to building (	(LAG)	<u>11</u> . <u>7</u>	X feet  meters	
g) Highest adjacent (finished) grade next to building	(HAG)	12. 1	X feet meters	
h) Lowest adjacent grade at lowest elevation of deck structural support	or stairs, including	12, 0	X feet meters	
SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION				
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.				
Were latitude and longitude in Section A provided by a lice		Section Control of the Control of th	Check here if attachments.	
Certifier's Name	License Number			
J. Craig Brewer	3022		GEORGIA GENERAL	
Title Professional Land Surveyor			REG ISTERED	
Company Name Brewer Land Surveying			No. 3022	
Address			- 112/2 OL/2/	
PO Box 441			SURVEYOUS SURVEYOUS	
City Pooler	State Georgia	ZIP Code 31322	CRAIG BR.	
Signature	Date 03/31/2017	Telephone (912) 856-2205		
Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.				
Comments (including type of equipment and location, per C2(e), if applicable)				
Item A9d is 3 Smart Vents Model 1540-570. Engineers certificate is attached. Item C2e is the outside air conditioning unit.				

# **ELEVATION CERTIFICATE**

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

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			Policy Number:	
205 Long Creek Lane				
·	State	ZIP Code	Company NAIC Number	
Richmond Hill	Georgia	31324		
SECTION E BUILDING EL FOR ZON	EVATION INFOR	RMATION (SURVEY NOT E A (WITHOUT BFE)	REQUIRED)	
For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B,and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.				
E1. Provide elevation information for the following and the highest adjacent grade (HAG) and the lowest			er the elevation is above or below	
<ul> <li>a) Top of bottom floor (including basement, crawlspace, or enclosure) is</li> </ul>		□ foot □ moto	above or Thelew the HAC	
b) Top of bottom floor (including basement,		[_] feet [_] mete	ers above or below the HAG.	
crawlspace, or enclosure) is		feet mete	ers 🔲 above or 🔲 below the LAG.	
E2. For Building Diagrams 6–9 with permanent flood of	neninas provided	in Section A Items 8 and/or	r 9 (see pages 1-2 of Instructions)	
the next higher floor (elevation C2.b in	poimigo providos			
the diagrams) of the building is	···	feet mete	ers  above or below the HAG.	
E3. Attached garage (top of slab) is	<del></del>	[] feet [] mete	ers above or below the HAG.	
E4. Top of platform of machinery and/or equipment servicing the building is			ers above or below the HAG.	
E5. Zone AO only: If no flood depth number is available floodplain management ordinance?	e, is the top of the	e bottom floor elevated in a wn. The local official must	ccordance with the community's certify this information in Section G.	
SECTION F - PROPERTY OW	NER (OR OWNER	S'S REPRESENTATIVE) C	FRIEICATION	
	· · · · · · · · · · · · · · · · · · ·			
The property owner or owner's authorized representati community-issued BFE) or Zone AO must sign here. T	ve who completes he statements in S	Sections A, B, and E for Z Sections A. B. and E are co	one A (without a FEMA-issued or rrect to the best of my knowledge.	
			nest to the sect of hij Michielage.	
Property Owner or Owner's Authorized Representative	's Name			
Address		Dity S	toto ZID Codo	
Address	C	ony 5	tate ZIP Code	
Signature	D	Pate To	elephone	
Comments	······································			
			Check here if attachments.	

# **ELEVATION CERTIFICATE**

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

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.		Policy Number:		
205 Long Creek Lane				
City	State ZIF	Code	Company NAIC Number	
Richmond Hill	Georgia 31	324		
SECTIO	ON G - COMMUNITY INFORMA	TION (OPTIONAL)		
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.				
G1. The information in Section C was tak engineer, or architect who is authoriz data in the Comments area below.)	en from other documentation tha ed by law to certify elevation info	t has been signed ar rmation. (Indicate th	nd sealed by a licensed surveyor, e source and date of the elevation	
G2. A community official completed Section Zone AO.	on E for a building located in Zor	e A (without a FEM/	N-issued or community-issued BFE)	
G3. The following information (Items G4-	G10) is provided for community f	loodplain managem	ent purposes.	
G4. Permit Number	G5. Date Permit Issued		Pate Certificate of compliance/Occupancy Issued	
G7. This permit has been issued for:	New Construction  Substant	ial Improvement		
G8. Elevation of as-built lowest floor (including of the building:	g basement)	[] feet	meters Datum	
G9. BFE or (in Zone AO) depth of flooding at	the building site:	feet	meters Datum	
G10. Community's design flood elevation:	<u></u>	feet	meters Datum	
Local Official's Name	Title			
Community Name	Telepho	ne		
Signature	Date			
Comments (including type of equipment and loc	cation per C2(e) if applicable)			
commente (including type of equipment and loc	oution, por ozio,, ii applicable,			
			į	
			Check here if attachments.	

## **BUILDING PHOTOGRAPHS**

## **ELEVATION CERTIFICATE**

**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 Bldg. No.) or P.O. Route and Box No. 205 Long Creek Lane			FOR INSURANCE COMPANY USE Policy Number:
Richmond Hill	Georgia	31324	Control of

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 One

Photo One Caption

Left View - 03/30/2017



Photo Two

Photo Two Caption

Right View - 03/30/2017



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# **ICC-ES Report**

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

ESR-2074

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

#### REPORT HOLDER:

# SMARTVENT PRODUCTS, INC.

430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071

#### **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



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# **ICC-ES Evaluation Report**

ESR-2074

Reissued February 2015 Revised May 2016 This report is subject to renewal February 2017.

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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:

SMARTVENT PRODUCTS, INC. 430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071 (877) 441-8368

www.smartvent.com Info@smartvent.com

#### **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

#### 1.0 EVALUATION SCOPE

#### Compliance with the following codes:

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

#### Properties evaluated:

- Physical operation
- Water flow

#### 2.0 USES

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

#### 3.0 DESCRIPTION

#### 3.1 General:

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

allowing the door to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. Smart Vent® Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. The SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 units each contain two vertically arranged openings per unit.

## 3.2 Engineered Opening:

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

#### 3.3 Ventilation:

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

## 4.0 DESIGN AND INSTALLATION

SmartVENT® and FloodVENT® are designed to be installed into walls or overhead doors of existing or new construction from the exterior side. Installation of the vents must be in accordance with the manufacturer's instructions, the applicable code and this report. Installation clips allow mounting in masonry and concrete walls of any thickness. In order to comply with the engineered opening design principle noted in Section 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Smart Vent® FVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one FV for every 200 square feet (18.6 m²) of enclosed area, except that the SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 must be installed with a minimum of one FV for every 400 square feet (37.2 m²) of enclosed area.

<sup>&</sup>lt;sup>1</sup>The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

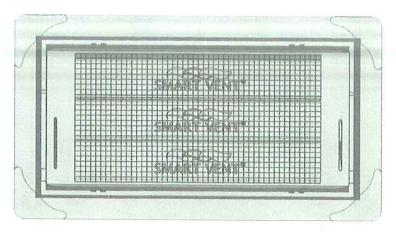


FIGURE 1-SMART VENT: MODEL 1540-510

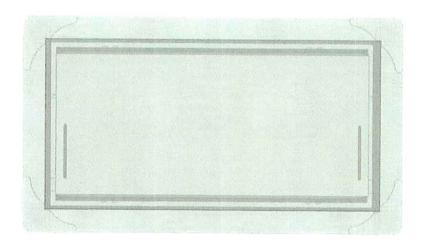


FIGURE 2—SMART VENT MODEL 1540-520

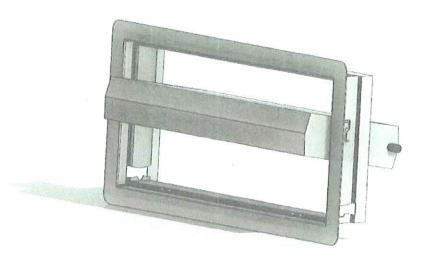


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN



## ICC-ES Evaluation Report

# ESR-2074 FBC Supplement

Reissued February 2015 Revised March 2016 This report is subject to renewal February 2017.

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

A Subsidiary of the International Code Council®

DIVISION: 08 00 00-OPENINGS

Section: 08 95 43-Vents/Foundation Flood Vents

#### REPORT HOLDER:

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## 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:

- 2014 Florida Building Code—Building (FBC)
- 2014 Florida Building Code—Residential (FRC)

## 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 FBC and the FRC, provided the design and installation are in accordance with the International Building Code® 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-Velocity Hurricane Zone provisions of the FBC and the FRC.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is auclited 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 2015 and revised May 2016.