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.

	SECT	ION A PROPERTY	INFOR	MATION		FOR INSUE	RANCE COMPANY USE
A1. Building Owner's Name Ben Chapman Policy Number:							
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 111 North Essex Avenue Company NAIC Number:					IAIC Number:		
City				State		ZIP Code	
Margate				New Jersey		08402	
A3. Property Descr Lot 7 Block 305.01	iption (Lot ar	nd Block Numbers, Tax	Parce	l Number, Legal De	scription, etc.)		
A4. Building Use (.g., Resident	ial, Non-Residential, A	ddition	, Accessory, etc.)	Residential		
A5. Latitude/Longit	ude: Lat. N3	39°20'00" L	ong. V	/74°29'58"	Horizontal Datum	: NAD	1927 X NAD 1983
A6. Attach at least	2 photograph	ns of the building if the	Certific	ate is being used to	o obtain flood insura	nce.	
A7. Building Diagra	m Number	8					
A8. For a building v	vith a crawlsp	pace or enclosure(s):					
a) Square foot	age of crawls	pace or enclosure(s)		900 sq ft			
b) Number of p	ermanent flo	od openings in the cra	wlspac	e or enclosure(s) w	ithin 1.0 foot above	adjacent gr	ade 8
c) Total net are	a of flood op	enings in A8.b 1,60	00 s	q in			
d) Engineered	flood opening	gs? 🗵 Yes 🗌 No)				
A9 For a building w	uith an attach	ed darage:					
A9. For a building with an attached garage:							
a) Square footage of attached garage0 sq ft							
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade0							
c) Total net area of flood openings in A9.b							
d) Engineered flood openings?							
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION							
B1. NFIP Communit	y Name & Co	ommunity Number		B2. County Name			B3. State
Margate 345304				Atlantic			New Jersey
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	E	IRM Panel ffective/ evised Date	B8. Flood Zone(s)	(Zoi	se Flood Elevation(s) ne AO, use Base od Depth)
34001C/0453	F	05/30/2014	01/30		AE	9.00	ou beputy
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:							
☐ FIS Profile	☐ FIRM [Community Determ	ined [⊻ Other/Source: E	reliminary FIRM		
B11. Indicate eleva	tion datum us	sed for BFE in Item B9	: 🗌 N	GVD 1929 🔀 NA	VD 1988 Oth	er/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

IMPORTANT: In these spaces, copy the corresponding information from Sec	FOR INSURANCE COMPANY USE			
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Rou 111 North Essex Avenue	Policy Number:			
CityStateZIPMargateNew Jersey0840	Code 02	Company NAIC Number		
SECTION C - BUILDING ELEVATION INFORMAT	ION (SURVEY RE	EQUIRED)		
 C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction *A new Elevation Certificate will be required when construction of the building is complete. 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: GPS Vertical Datum: NAVD 1988 				
Indicate elevation datum used for the elevations in items a) through h) below NGVD 1929 X NAVD 1988 Other/Source: 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, crawlspace, or enclosure floor)		X feet meters		
b) Top of the next higher floor	<u>11</u> . 7	X feet meters		
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A N/A	X feet meters		
d) Attached garage (top of slab)	10 8	X feet meters		
 e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) 	<u> </u>	X feet meters		
f) Lowest adjacent (finished) grade next to building (LAG)	<u>8</u> . <u>1</u>	x feet meters		
g) Highest adjacent (finished) grade next to building (HAG)	8.4	X feet meters		
 Lowest adjacent grade at lowest elevation of deck or stairs, including structural support 	<u>7</u> . <u>4</u>	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 licensed land surveyor?	⊠Yes □ No			
Certifier's Name License Number James R. Boney, PLS 31264				
Title Professional Land Surveyor				
Company Name James R. Boney & Associates, LLC	Place Seal			
Address 13 Stone Mill Court		Here		
City State Egg Harbor Twp New Jersey	ZIP Code 08234			
Signature Date 10/24/2016	Telephone (609) 788-8013			
Copy all pages of this Elevation Celtificate and all attachments for (1) community off	icial, (2) insurance a	agent/company, and (3) building owner.		
Comments (including type of equipment and location, per C2(e), if applicable) Building is a two and a half story frame dwelling. There is a furnace in the utility respectively.	oom. Building has o	eight smart vents.		

ELEVATION CERTIFICATE

IMPORTANT: In these spaces, copy the corresponding Information	ation from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No. 111 N. ESSEX AVENUE) or P.O. Route and Box No.	Policy Number:
City State MARGATE New Jersey	ZIP Code 08402	Company NAIC Number
SECTION E – BUILDING ELEVATION I FOR ZONE AO AND	NFORMATION (SURVEY NO ZONE A (WITHOUT BFE)	REQUIRED)
For Zones AO and A (without BFE), complete Items E1–E5. If the Complete Sections A, B, and C. For Items E1–E4, use natural grade enter meters.		
E1. Provide elevation information for the following and check the a the highest adjacent grade (HAG) and the lowest adjacent grade (Tabletian because).		er the elevation is above or below
a) Top of bottom floor (including basement, crawlspace, or enclosure) is b) Top of bottom floor (including basement,	feet mete	ers above or below the HAG.
crawlspace, or enclosure) is	feet mete	
E2. For Building Diagrams 6–9 with permanent flood openings prothe the next higher floor (elevation C2.b in the diagrams) of the building is	vided in Section A Items 8 and/o	<u></u>
E3. Attached garage (top of slab) is	feet mete	above or below the HAG.
E4. Top of platform of machinery and/or equipment servicing the building is	[] feet [] mete	ers above or below the HAG.
E5. Zone AO only: If no flood depth number is available, is the top floodplain management ordinance? Yes No U		
SECTION F - PROPERTY OWNER (OR OV	NNER'S REPRESENTATIVE) C	ERTIFICATION
The property owner or owner's authorized representative who compcommunity-issued BFE) or Zone AO must sign here. The statement	oletes Sections A, B, and E for Z ts in Sections A, B, and E are co	one A (without a FEMA-issued or rect to the best of my knowledge.
Property Owner or Owner's Authorized Representative's Name		
Address	City S	tate ZIP Code
Signature	Da Te	elephone
Comments		
		E:
P B	*	
26		
· ·		
E.		4
		Check here if attachments.

ELEVATION CERTIFICATE

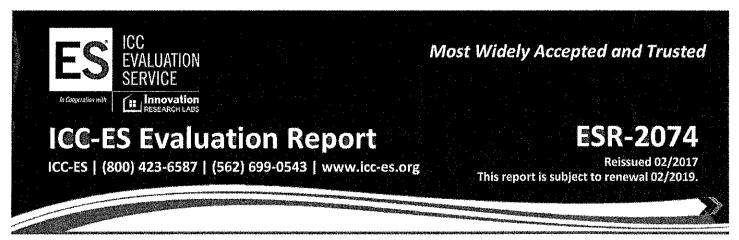
IMPORTANT: In these spaces, copy the corr	FOR INSURANCE COMPANY USE				
			Policy Number:		
City MARGATE	State New Jersey	ZIP Code 08402	Company NAIC Number		
SECTION	ON G - COMMUNITY INFOR	MATION (OPTIONAL)			
The local official who is authorized by law or ordinance to administer the community's floodplain 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 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.)					
G2. A community official completed Sect or Zone AO.	ion E for a building located in	Zone A (without a FEMA	x-issued or community-issued BFE)		
G3. The following information (Items G4-	-G10) is provided for commu	nity floodplain manageme	ent purposes.		
G4. Permit Number	G5. Date Permit Issued		ate Certificate of ompliance/Occupancy Issued		
G7. This permit has been issued for;	New Construction Subs	stantial Improvement			
G8. Elevation of as-built lowest floor (including of the building:	basement)	feet	meters Datum		
G9. BFE or (in Zone AO) depth of flooding at t	the building site:	feet	meters Datum		
G10. Community's design flood elevation:	G10. Community's design flood elevation: feet _ meters				
Local Official's Name Title					
Community Name MARGATE		phone 609-822-	1918		
MANGATE $609-812-1918$ Signature Date $3/21/18$					
Comments (including type of equipment and location, per C2(e), if applicable)					
		MARGATE CI 900	TY BUILDING DEPARTMENT 11 Winches & Ave. 12 pate City, NJ 08402		
			Check here if attachments.		

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

See Instructions for Item A6.

IMPORTANT: In these spaces, copy the correspondent	onding information	from Section A.	FOR INSURANCE COMPANY USE
D 11: Ot 1411 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Policy Number:
City Margate	State New Jersey	ZIP Code 08402	Company NAIC Number
If using the Elevation Certificate to obtain NFIF instructions for Item A6. Identify all photographs wi "Left Side View." When applicable, photographs vents, as indicated in Section A8. If submitting more	ith date taken; "Fron	it View" and "Rear View"; and	d, if required, "Right Side View" and
	Photo C	ne	
Photo One Caption	Photo One		
	Dhoto T		
	Photo Tv	VO	
hoto Two Caption	Photo Two		



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

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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® (IRC)
- 2013 Abu Dhabi International Building Code (ADIBC)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Physical operation
- Water flow

2.0 USES

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

3.0 DESCRIPTION

3.1 General:

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

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

3.2 Engineered Opening:

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

3.3 Ventilation:

The SmartVENT® Model #1540-510 and SmartVENT® Overhead Door Model #1540-514 both have screen covers with ¹/₄-inch-by-¹/₄-inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm²) of net free area to supply natural ventilation. The SmartVENT® Stacking Model #1540-511 consists of two Model #1540-510 units in one assembly, and provides 102 square inches (65 806 mm²) of net free area to supply natural ventilation. Other FVs 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.

- 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.

5.0 CONDITIONS OF USE

The Smart Vent[®] FVs described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The Smart Vent® FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern. 5.2 The Smart Vent® FVs must not be used in the place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015.

7.0 IDENTIFICATION

The Smart VENT® models 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).

TABLE 1-MODEL SIZES

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

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

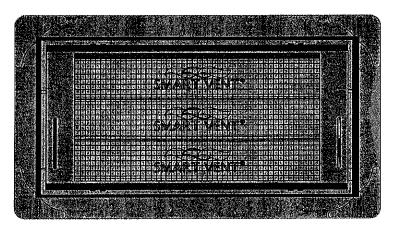


FIGURE 1—SMART VENT: MODEL 1540-510

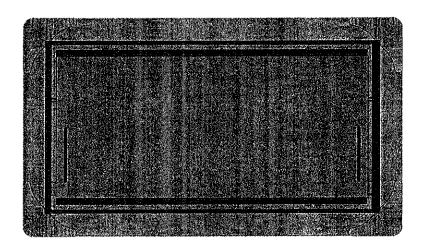


FIGURE 2-SMART VENT MODEL 1540-520

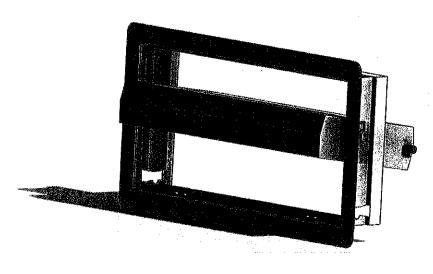


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN