

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.

SECTION A - PROPERTY INFORMATION				FOR INSURANCE COMPANY USE			
A1. Building Owner's Name				Policy Num	ber:		
A2. Building Stree Box No. 204 NORTH UNIO	·	luding Apt., Unit, Suite	e, and/o	r Bldg. No.) or P.O.	Route and	Company N	IAIC Number:
City MARGATE CI	ΓΥ	State New Jersey			ZIP Code 08402		
A3. Property Desc LOT 20, BLOCK 42		nd Block Numbers, Ta	x Parce	l Number, Legal De	escription, etc.)		
A4. Building Use (e.g., Residen	tial, Non-Residential, A	Addition	, Accessory, etc.)	RESIDENTIAL		
A5. Latitude/Longi	tude: Lat. <u>39</u>	1-16-23 N	Long	74-36-01 W	Horizontal Datun	n: 🔀 NAD 1	1927 🗌 NAD 1983
A6. Attach at least	2 photograph	ns of the building if the	Certific	ate is being used to	o obtain flood insur	ance.	
A7. Building Diagra	am Number	8					
A8. For a building	with a crawlsp	pace or enclosure(s):					
a) Square foo	tage of crawls	space or enclosure(s)		943 sq ft			
b) Number of	permanent flo	od openings in the cra	awlspac	e or enclosure(s) w	ithin 1.0 foot above	adjacent gr	ade5
c) Total net ar	ea of flood op	enings in A8.b1,0	000 s	q in			
d) Engineered	I flood opening	gs? ⊠ Yes □ N	0				
A9. For a building	with an attach	ed garage:					
		ed garage 0		sa ft			
		od openings in the att			ot above adjacent o	urade	0
					ot above adjacent s		
		enings in A9.b		sq in			
d) Engineered	flood opening	gs? ☐ Yes ⊠ N	0				
	SE	CTION B - FLOOD IN	NSURA	NCE RATE MAP	(FIRM) INFORMA	TION	
B1. NFIP Commun MARGATE CITY	ity Name & Co 345304	ommunity Number		B2. County Name			B3. State New Jersey
		I	<u> </u>			1	
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	E	IRM Panel fective/	B8. Flood Zone(s)	(Zo	se Flood Elevation(s) ne AO, use Base
34001C0434	F	08/28/2018	08/28	evised Date /2018 	AE	Floo 8	od Depth)
B10. Indicate the s	ource of the E	Base Flood Elevation (BFE) da	ata or base flood de	epth entered in Item	n B9:	
		Community Determ			•		
B11. Indicate eleva	ation datum us	sed for BFE in Item B9	9: 🗌 N	GVD 1929 ⊠ NA	.VD 1988	her/Source:	
B12. Is the building	located in a	Coastal Barrier Resou	ırces Sv	/stem (CBRS) area	or Otherwise Prote	ected Area ((OPA)? ☐ Yes ⊠ No
Designation [_	CBRS	□ OPA		`	, L L
3			55.10				

ELEVATION CERTIFICATE

			FOR INSURANCE COMPANY USE		
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 204 NORTH UNION AVENUE			Policy Number:		
City Sta MARGATE CITY New		Code 402	Company NAIC Number		
SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)					
*A new Elevation Certificate will be required when c C2. Elevations – Zones A1–A30, AE, AH, A (with BFE),	VE, V1-V30, V (with E	ing is complete. SFE), 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: LOCAL Vertical Datum: NAVD 1988					
Indicate elevation datum used for the elevations in it ☐ NGVD 1929 ☑ NAVD 1988 ☐ Other/s	Source:				
Datum used for building elevations must be the sam	e as that used for the I	BFE.	Check the measurement used.		
a) Top of bottom floor (including basement, crawlsp	oace, or enclosure floor	·)	X feet meters		
b) Top of the next higher floor		<u>11</u> . <u>0</u>	x feet meters		
c) Bottom of the lowest horizontal structural member	er (V Zones only)	N/A	x feet meters		
d) Attached garage (top of slab)		N/A	x feet meters		
 e) Lowest elevation of machinery or equipment ser (Describe type of equipment and location in Com 	vicing the building nments)	10. 5	x feet meters		
f) Lowest adjacent (finished) grade next to building	(LAG)	7. <u>2</u>	x feet meters		
g) Highest adjacent (finished) grade next to building	j (HAG)	<u>7</u> . <u>3</u>	x feet meters		
 h) Lowest adjacent grade at lowest elevation of dec structural support 	ck or stairs, including	<u>7</u> . <u>2</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 lie	censed land surveyor?	⊠Yes □ No	⊠ Check here if attachments.		
Certifier's Name THOMAS N. TOLBERT	License Number 38608				
Title PRESIDENT					
Company Name DESIGN LAND SURVEYING, P.A.			Place Seal Here		
Address P.O BOX 667			11616		
City TURNERSVILLE	State New Jersey	ZIP Code 08012			
Signature	Date 05/14/2019	Telephone (856) 374-1134			
Copy all pages of this Elevation Certificate and all attachme	nts for (1) community o	fficial, (2) insurance a	agent/company, and (3) building owner.		
Comments (including type of equipment and location, per C2(e), if applicable) LOWEST MECHANICAL USED IS AC COMPRESSOR/ FLOOD VENTS ARE SMART VENTS MODEL #1540-510					

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IMPORTANT: In these spaces, copy the corresponding	FOR INSURANCE COMPANY USE			
Building Street Address (including Apt., Unit, Suite, and/o	or Bldg. No.) or P.O.	Route and Box No.	Policy Number:	
•	ate ew Jersey	ZIP Code 08402	Company NAIC Number	
SECTION E – BUILDING ELE FOR ZONE	VATION INFORMA AO AND ZONE A (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.	E5. If the Certificate i tural grade, if availab	s intended to support a le. Check the measure	a LOMA or LOMR-F request, ment used. In Puerto Rico only,	
E1. 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).a) Top of bottom floor (including basement,				
crawlspace, or enclosure) is b) Top of bottom floor (including basement,			rs above or below the HAG.	
crawlspace, or enclosure) is				
E2. For Building Diagrams 6–9 with permanent flood oper the next higher floor (elevation C2.b in the diagrams) of the building is	enings provided in Se	ection A Items 8 and/or 		
E3. Attached garage (top of slab) is			rs above or below the HAG.	
E4. Top of platform of machinery and/or equipment servicing the building is			rs 🔲 above or 🗌 below the HAG.	
E5. Zone AO only: If no flood depth number is available, floodplain management ordinance? Yes			cordance with the community's certify this information in Section G.	
SECTION F - PROPERTY OWN	ER (OR OWNER'S R	EPRESENTATIVE) C	ERTIFICATION	
The property owner or owner's authorized representative community-issued BFE) or Zone AO must sign here. The	who completes Sec statements in Section	tions A, B, and E for Zo ons A, B, and E are cor	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	St	ate ZIP Code	
Signature	Date	Те	lephone	
Comments	400000000000000000000000000000000000000			
			Check here if attachments.	
			Shock here it attachments.	

ELEVATION CERTIFICATE

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE		
Building Street Address (including Apt., Unit, State 204 NORTH UNION AVENUE	uite, and/or Bldg. No.) or P.O. Ro	oute and Box No.	Policy Number:		
City MARGATE CITY		P Code 08402	Company NAIC Number		
SECTIO	ON G - COMMUNITY INFORMA	TION (OPTIONAL)			
The local official who is authorized by law or or Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, en	Certificate. Complete the applic	unity's floodplain ma able item(s) and sign	nagement ordinance can complete below. Check the measurement		
	engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation				
G2. A community official completed Section or Zone AO.	on E for a building located in Zo	ne A (without a FEM	A-issued or community-issued BFE)		
G3. The following information (Items G4-	-G10) is provided for community	floodplain managem	ent purposes.		
G4. Permit Number	G5. Date Permit Issued		Date Certificate of Compliance/Occupancy Issued		
G7. This permit has been issued for:	New Construction Substan	itial 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:			meters Datum		
Local Official's Name	la fino	CFN	1		
Community Name MANGET	Telepho	one 609 - 828	:-1974		
Local Official's Name Community Name MANGAT Signature	Date	51	1-1974		
Comments (including type of equipment and loc	cation, per C2(e), if applicable)				
			Check here if attachments.		

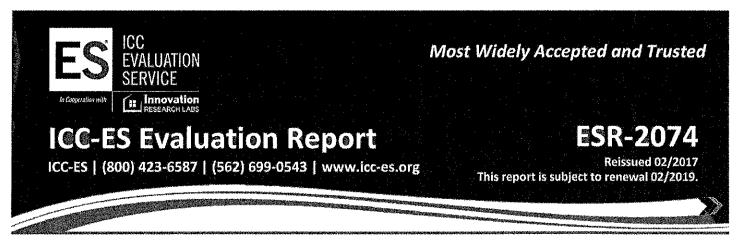
BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

See Instructions for Item A6.

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt 204 NORTH UNION AVENUE	Policy Number:		
City MARGATE CITY	State New Jersey	ZIP Code 08402	Company NAIC Number
If using the Elevation Certificate to instructions for Item A6. Identify all pl "Left Side View." When applicable, vents, as indicated in Section A8. If s	notographs with date taken; "Front photographs must show the foun	View" and "Rear View"; and dation with representative	d, if required, "Right Side View" and examples of the flood openings or
-			
	JAP .		
	Photo One		
Photo One Caption	6		
	Photo Tv	NO	
	Photo Two		
Photo Two Caption	riidio Iwo		





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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Product Cartification Body



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ICC-ES Evaluation Report

ESR-2074

Reissued February 2017 Revised November 2017

This report is subject to renewal February 2019.

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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® (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 $400 \text{ square feet } (37.2 \text{ m}^2) \text{ of enclosed area.}$

- 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

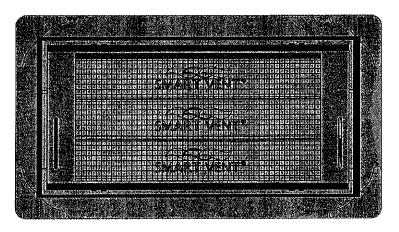


FIGURE 1—SMART VENT: MODEL 1540-510

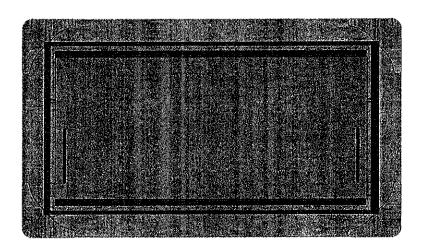


FIGURE 2-SMART VENT MODEL 1540-520

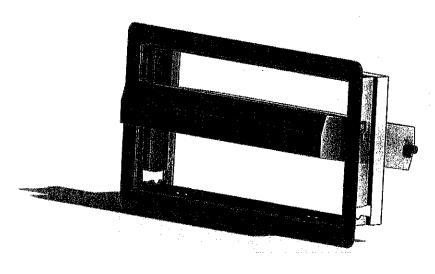


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN