

# ELEVATION CERTIFICATE

Important: Read the instructions on pages 1-9.

OMB No. 1660-0008  
 Expiration Date: July 31, 2015

## SECTION A - PROPERTY INFORMATION

### FOR INSURANCE COMPANY USE

A1. Building Owner's Name JUDY STOCK  
 Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
114 HIGHLAND AVENUE  
 City NEPTUNE State NJ ZIP Code 07753

Policy Number:  
 Company NAIC Number:

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)  
LOT 1, BLOCK 435

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL

A5. Latitude/Longitude: Lat. N 40deg11.483min Long. W74deg02.453min Horizontal Datum:  NAD 1927  NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 7

A8. For a building with a crawlspace or enclosure(s):

- a) Square footage of crawlspace or enclosure(s) 825 sq ft  
 b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 5 *MTC*  
 c) Total net area of flood openings in A8.b 1000 sq in  
 d) Engineered flood openings?  Yes  No

A9. For a building with an attached garage:

- a) Square footage of attached garage 248 sq ft  
 b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 2 *MTC*  
 c) Total net area of flood openings in A9.b 400 sq in  
 d) Engineered flood openings?  Yes  No

## SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number  
NEPTUNE TWP. 340317

B2. County Name  
MONMOUTH

B3. State  
NJ

B4. Map/Panel Number  
34025C0333

B5. Suffix  
F

B6. FIRM Index Date  
9/25/09

B7. FIRM Panel Effective/Revised Date  
9/25/09

B8. Flood Zone(s)  
AE

B9. Base Flood Elevation(s) (Zone AO, use base flood depth)  
9

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  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

## SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

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: LOCAL

Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.  NGVD 1929  NAVD 1988  Other/Source: \_\_\_\_\_

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

- a) Top of bottom floor (including basement, crawlspace, or enclosure floor) 7.6  feet  meters  
 b) Top of the next higher floor 16.0  feet  meters  
 c) Bottom of the lowest horizontal structural member (V Zones only) N.A.  feet  meters  
 d) Attached garage (top of slab) 7.4  feet  meters  
 e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) 13.6  feet  meters  
 f) Lowest adjacent (finished) grade next to building (LAG) 6.5  feet  meters  
 g) Highest adjacent (finished) grade next to building (HAG) 7.0  feet  meters  
 h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support 7.0  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.

- Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No  
 Check here if attachments.

Certifier's Name MICHAEL T. CANNON

License Number NJ PE LS 34691

Title PRESIDENT

Company Name THE CANNON GROUP, PC

Address 100 JACK MARTIN BLVD.

City BRICK

State NJ

ZIP Code 08724

Signature *[Signature]*

Date 8/7/13 REV 2/17/17

Telephone 732-458-0003

PLACE  
 SEAL  
 HERE

Corresponding information from Section A.

FOR INSURANCE COMPANY USE

...nt, Suite, and/or Bldg. No.) or P.O. Route and Box No.

Policy Number:

State NJ ZIP Code 07753

Company NAIC Number:

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

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

ABFE MAPS PLACE THE PROPERTY IN ZONE A 1% ELEVATION 10

VENTS IN THE GARAGE ARE SMART VENT MODEL RATED AT 200 SQ. IN. THE FLOOD VENTS IN THE BASEMENT

ARE RATED AT 200 SQ. IN.

ONE VENT ADDED IN BASEMENT. *MTC*

SMART VENT MODEL 1540-520

Signature *[Handwritten Signature]*

Date 8/7/13 REV. 2/17/17 *MTC*

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

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 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 ... feet meters above or below the HAG.
b) Top of bottom floor (including basement, crawlspace, or enclosure) is ... feet meters above or below the LAG.
E2. For Building Diagrams 6-9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8-9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is ... feet meters above or below the HAG.
E3. Attached garage (top of slab) is ... feet meters above or below the HAG.
E4. Top of platform of machinery and/or equipment servicing the building is ... feet meters above or below the HAG.
E5. 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 Unknown. The local official must certify this information in Section G.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

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.

Property Owner's or Owner's Authorized Representative's Name

Address City State ZIP Code

Signature Date Telephone

Comments

Check here if attachments.

SECTION G - COMMUNITY INFORMATION (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 Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
G3. The following information (Items G4-G10) is provided for community floodplain management purposes.

Table with 3 columns: G4. Permit Number, G5. Date Permit Issued, G6. Date Certificate Of Compliance/Occupancy Issued

- G7. This permit has been issued for: New Construction Substantial Improvement
G8. Elevation of as-built lowest floor (including basement) of the building: 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: feet meters Datum

Local Official's Name Title

Community Name Telephone

Signature Date

Comments

Check here if attachments.

# Building Photographs

See Instructions for Item A6.

In all spaces, copy the corresponding information from Section A.

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

AVENUE

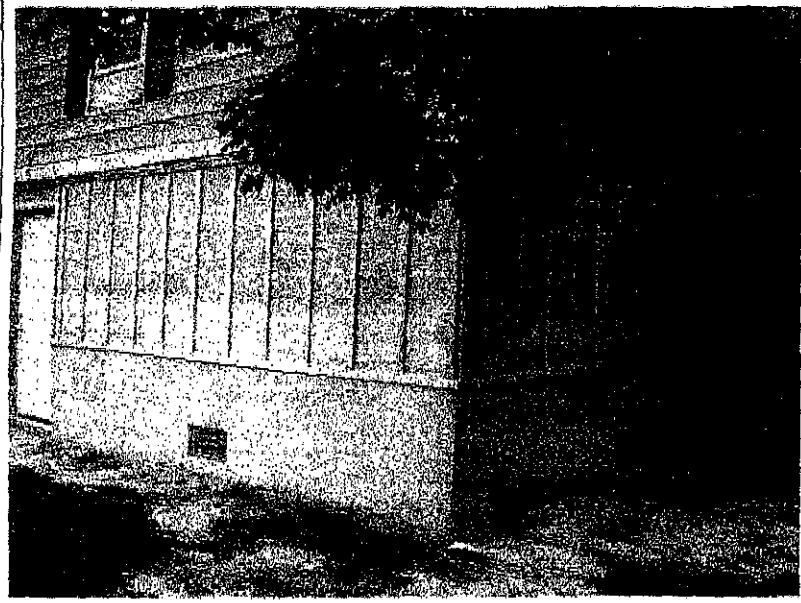
State NJ ZIP Code 07753

FOR INSURANCE COMPANY USE	
Policy Number:	
Company NAIC Number:	

When submitting 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/WEST SIDE 8/7/13



REAR GARAGE/WEST SIDE 8/19/13

# Building Photographs

Continuation Page

spaces, copy the corresponding information from Section A.

(including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.

AVENUE

State NJ

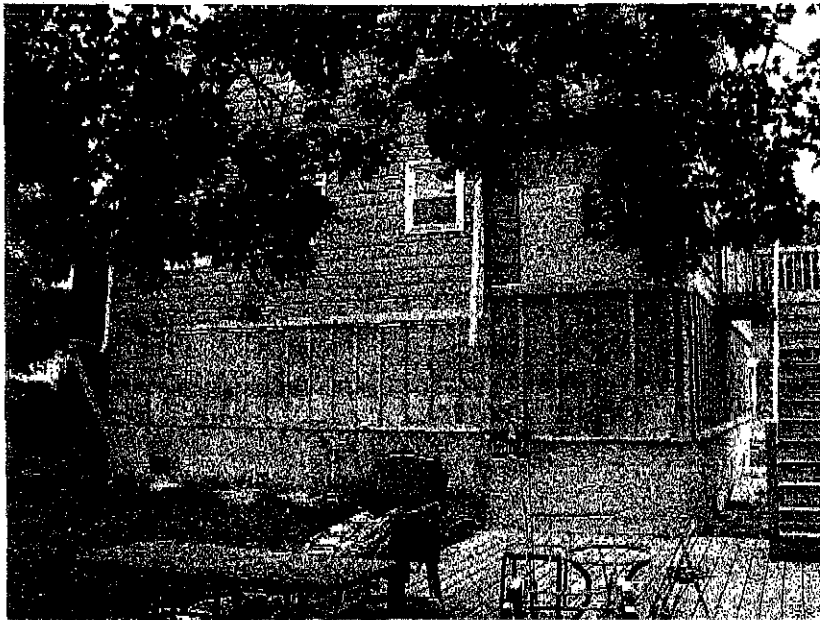
ZIP Code 07753

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

If affixing more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with the 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.



REAR/EAST SIDE 8/19/13



FRONT/EAST SIDE 8/19/13



Most Widely Accepted and Trusted

# ICC-ES Report

## ESR-2074

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

Reissued 02/2015

This report is subject to renewal 02/2017.

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



Look for the trusted marks of Conformity!

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



A Subsidiary of

*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\***

Reissued February 2015

This report is subject to renewal February 2017.

[www.icc-es.org](http://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:****SMARTVENT PRODUCTS, INC.**  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto: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:**

- 2012, 2009 and 2006 *International Building Code*® (IBC)
- 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 2.6.2.2 of ASCE/SEI 24 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 mm<sup>2</sup>) 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 mm<sup>2</sup>) 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. The mounting straps allow mounting in masonry and concrete walls up to 12 inches (305 mm) thick. In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, 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 m<sup>2</sup>) 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 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

\*Revised July 2015

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.



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 October 2013 (editorially revised May 2014).

### 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 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT®	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT® Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	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® 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 = m<sup>2</sup>

# ELEVATION CERTIFICATE

IMPORTANT: Follow the instructions on pages 1-9.

OMB No. 1660-0008  
 Expiration Date: July 31, 2015

SECTION A - PROPERTY INFORMATION		FOR INSURANCE COMPANY USE
A1. Building Owner's Name <b>EVELYN STUMPF &amp; SANDRA SCHWEICHARDT</b>		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <b>21 ALBANY ROAD</b>		Company NAIC Number:
City <b>NEPTUNE</b>	State <b>NJ</b>	ZIP Code <b>07753</b>
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) <b>BLOCK 556, LOT 18</b>		<i>Elevated structure</i>
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <b>RESIDENTIAL</b>		
A5. Latitude/Longitude: Lat. <b>40-11-27.37694</b> Long. <b>74-01-34.10860</b>		Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number <b>2</b>		
A8. For a building with a crawlspace or enclosure(s):		A9. For a building with an attached garage:
a) Square footage of crawlspace or enclosure(s) <b>1,047</b> sq ft		a) Square footage of attached garage <b>N/A</b> sq ft
b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <b>6</b>		b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____
c) Total net area of flood openings in A8.b <b>1,200*</b> sq in		c) Total net area of flood openings in A9.b _____ sq in
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No

## SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number <b>TOWNSHIP OF NEPTUNE / 340317</b>			B2. County Name <b>MONMOUTH</b>		B3. State <b>NEW JERSEY</b>
B4. Map/Panel Number <b>34025C0334</b>	B5. Suffix <b>F</b>	B6. FIRM Index Date <b>09/25/2009</b>	B7. FIRM Panel Effective/Revised Date <b>09/25/2009</b>	B8. Flood Zone(s) <b>AE</b>	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) <b>9</b>
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input type="checkbox"/> No Designation Date: ____/____/____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

## SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

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: CORS (LEICA SMARTNET) Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.  NGVD 1929  NAVD 1988  Other/Source: \_\_\_\_\_  
 Datum used for building elevations must be the same as that used for the BFE.

	Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor) <u>7.9</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor <u>13.2</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only) <u>N/A</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab) <u>N/A</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) <u>12.1</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG) <u>7.2</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG) <u>8.1</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support <u>7.8</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> 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.

Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No  
 Check here if attachments.

Certifier's Name <b>GEORGE W. EDWARDS, PLS</b>		License Number <b>24GS01900200</b>	
Title <b>PROFESSIONAL LAND SURVEYOR</b>		Company Name <b>EDWARDS SURVEYING</b>	
Address <b>1335 SUNSET AVENUE</b>		City <b>POINT PLEASANT</b>	State <b>NJ</b>
Signature <i>George W. Edwards</i>		Date <b>08/05/2014</b>	ZIP Code <b>08742</b>
		Telephone <b>732-892-4010</b>	

PLACE SEAL HERE



In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE	
Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <b>BANY ROAD</b>			Policy Number:	
State <b>NJ</b>		ZIP Code <b>07753</b>	Company NAIC Number:	
NEPTUNE				

**SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)**

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

Comments A8c) ALL VENTS ARE SMARTVENTS AND ARE RATED FOR 200 SQUARE FEET EACH  
 SMART VENT MODEL NO. 1540-510

Signature <i>Miguel W. Edwards</i>	Date <b>08/05/2014</b>
------------------------------------	------------------------

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)**

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 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 \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8–9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. 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  Unknown. The local official must certify this information in Section G.

**SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

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.

Property Owner or Owner's Authorized Representative's Name \_\_\_\_\_

Address _____	City _____	State _____	ZIP Code _____
Signature _____	Date _____	Telephone _____	

Comments \_\_\_\_\_

Check here if attachments.

**SECTION G – COMMUNITY INFORMATION (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 Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3.  The following information (Items G4–G9) is provided for community floodplain management purposes.

G4. Permit Number _____	G5. Date Permit Issued _____	G6. Date Certificate Of Compliance/Occupancy Issued _____
-------------------------	------------------------------	-----------------------------------------------------------

- G7. This permit has been issued for:  New Construction  Substantial Improvement
- G8. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_ . \_\_\_\_\_  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: \_\_\_\_\_ . \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

Local Official's Name _____	Title _____
Community Name _____	Telephone _____
Signature _____	Date _____

Comments \_\_\_\_\_

Check here if attachments.

<b>INSTRUCTIONS:</b> In these spaces, copy the corresponding information from Section A.		<b>FOR INSURANCE COMPANY USE</b>	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 21 ALBANY ROAD		Policy Number:	
City NEPTUNE	State NJ	ZIP Code 07753	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.



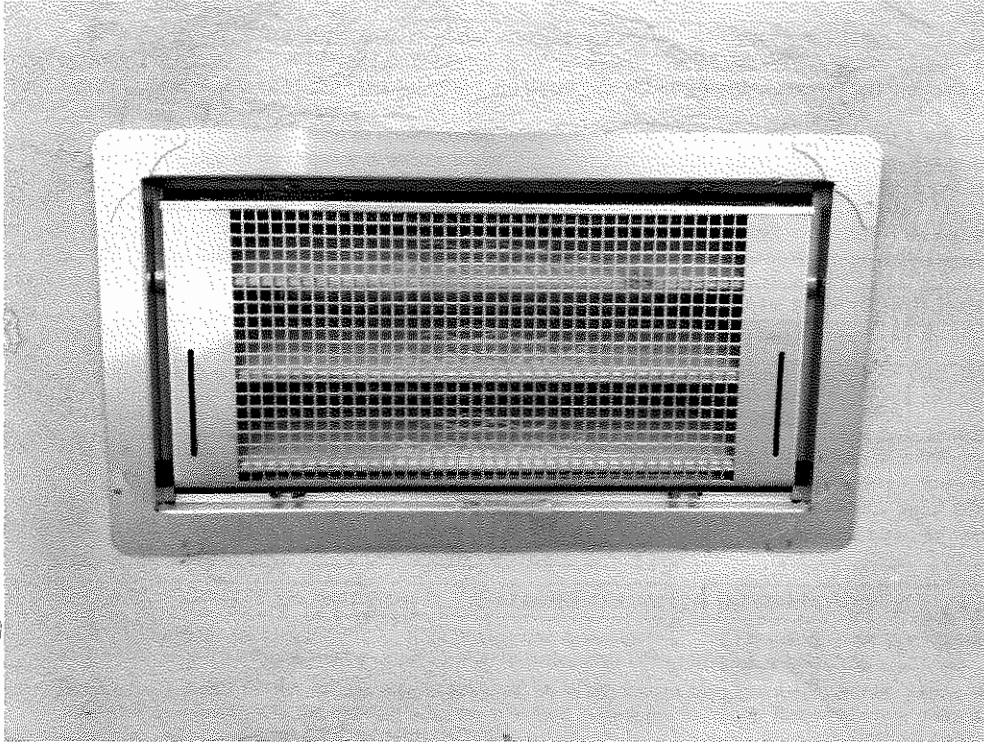
**FRONT VIEW  
21 ALBANY ROAD  
NEPTUNE, NJ  
AUGUST 5, 2014**



**REAR VIEW  
21 ALBANY ROAD  
NEPTUNE, NJ  
AUGUST 5, 2014**

<b>INSTRUCTIONS:</b> 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. 21 ALBANY ROAD			Policy Number:	
City NEPTUNE	State NJ	ZIP Code 07753	Company NAIC 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.



**SMART VENT (TYPICAL)  
21 ALBANY ROAD  
NEPTUNE, NJ  
AUGUST 5, 2014**



**A/C PLATFORM  
21 ALBANY ROAD  
NEPTUNE, NJ  
AUGUST 5, 2014**

**ICC-ES Evaluation Report****ESR-2074\***

Reissued December 1, 2012

This report is subject to renewal February 1, 2015.

[www.icc-es.org](http://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:**SMARTVENT PRODUCTS, INC.  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368  
[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto:info@smartvent.com)**EVALUATION SUBJECT:**SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS:  
FLOODVENT™ MODEL #1540-520; FLOODVENT™  
STACKING MODEL #1540-521; SMARTVENT™ MODEL  
#1540-510; SMARTVENT™ STACKING MODEL #1540-511;  
WOOD WALL FLOOD MODEL #1540-570; WOOD WALL  
FLOOD OVERHEAD DOOR MODEL #1540-574;  
FLOODVENT™ OVERHEAD DOOR MODEL #1540-524;  
SMARTVENT™ OVERHEAD DOOR MODEL #1540-514**1.0 EVALUATION SCOPE**

Compliance with the following codes:

- 2009 and 2006 *International Building Code*® (IBC)
- 2009 and 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Physical operation
- Water flow

**2.0 USES**

The Smart Vent® units are automatic foundation flood vents (AFFVs) employed to equalize hydrostatic pressure on nonfire-resistance-rated foundation walls, rolling-type overhead doors and building walls subject to rising or falling flood waters. The Smart Vent® units are intended for use where flood hazard areas have been established in accordance with IBC Section 1612.3 or IRC Section R3222.1. Certain models also allow natural ventilation in accordance with Section 1203 of the IBC or Section 408.1 of the IRC.

**3.0 DESCRIPTION****3.1 General:**

When subjected to pressure from rising water, the Smart Vent® AFFVs disengage, 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 AFFV 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 plate to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. 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 AFFVs comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 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 AFFVs must be installed in accordance with Section 4.0.

**3.3 Model Sizes:**

The FloodVENT™ Model #1540-520, SmartVENT™ Model #1540-510, FloodVENT™ Overhead Door Model #1540-524, and SmartVENT™ Overhead Door Model #1540-514 units measure 15<sup>3</sup>/<sub>4</sub> inches wide by 7<sup>3</sup>/<sub>4</sub> inches high (400 by 196.9 mm). The Wood Wall Flood Model #1540-570 and Wood Wall Flood Overhead Door Model #1540-574 units measure 14 inches wide by 8<sup>3</sup>/<sub>4</sub> inches high (355.6 by 222.25 mm). The SmartVENT™ Stacking Model #1540-511 and FloodVENT™ Stacking Model #1540-521 units measure 16 inches wide by 16 inches high (406.4 by 406.4 mm).

**3.4 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 mm<sup>2</sup>) 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 mm<sup>2</sup>) of net free area to supply natural ventilation. Other AFFVs recognized in this report do not offer natural ventilation.

**4.0 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. The mounting straps allow mounting in wood, masonry and

\*Revised July 2013

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.



concrete walls up to 12 inches (305 mm) thick. In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, the Smart Vent<sup>®</sup> AFFVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one AFFV 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 AFFV for every 400 square feet (37.2 m<sup>2</sup>) of enclosed area.
- Below the base flood elevation.
- With the bottom of the AFFV located a maximum of 12 inches (305.4 mm) above grade.

#### 5.0 CONDITIONS OF USE

The Smart Vent<sup>®</sup> AFFVs 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> AFFVs 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> AFFVs 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 Automatic Foundation Flood Vents (AC364), dated October 2007.

#### 7.0 IDENTIFICATION

The Smart VENT<sup>®</sup> 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).

# ELEVATION CERTIFICATE

Important: Read the instructions on pages 1-9.

OMB No. 1660-0008  
 Expiration Date: July 31, 2015

## SECTION A - PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name MARY LAUDICE	Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 55 STOCKTON AVENUE	Company NAIC Number:
City TOWNSHIP OF NEPTUNE	State NJ ZIP Code 07760

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)  
 BLOCK 44 LOT 1845

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL

A5. Latitude/Longitude: Lat. N 40°12' 28.0" Long. W 074°00' 30.4" Horizontal Datum:  NAD 1927  NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 6

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s)	<u>876</u>	sq ft
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade	<u>7</u>	
c) Total net area of flood openings in A8.b	<u>1050</u>	sq in
d) Engineered flood openings?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

A9. For a building with an attached garage:

a) Square footage of attached garage	<u>N/A</u>	sq ft
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade	<u>N/A</u>	
c) Total net area of flood openings in A9.b	<u>N/A</u>	sq in
d) Engineered flood openings?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

## SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number TOWNSHIP OF NEPTUNE 340317	B2. County Name MONMOUTH	B3. State NJ			
B4. Map/Panel Number 34025C033	B5. Suffix F	B6. FIRM Index Date 09/25/2009	B7. FIRM Panel Effective/Revised Date 09/25/2009	B8. Flood Zone(s) X	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) N/A

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  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

## SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

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: LOCAL Vertical Datum: NAVD 1988  
 Indicate elevation datum used for the elevations in items a) through h) below.  NGVD 1929  NAVD 1988  Other/Source: \_\_\_\_\_  
 Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	<u>9.3</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor	<u>13.0</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	<u>11.3</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab)	<u>N/A</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	<u>12.3</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	<u>8.6</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	<u>9.4</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	<u>8.4</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> 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.

Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No

Check here if attachments.



Surveyor's Name WILLIAM H. ZIEMAN, JR.	License Number 18259
Prof. LAND SURVEYOR	Company Name C.C. WIDDIS SURVEYING, LLC
Address 175 BROADWAY	City LONG BRANCH State NJ ZIP Code 07740
Signature	Date 7/15/2014 Telephone 732-222-8810

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
55 STOCKTON AVENUE

City RUMSON State NJ ZIP Code 07756

FOR INSURANCE COMP.  
Policy Number:  
Company NAIC Number:

**SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)**

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

Comments B8 Flood Zone & B9 Flood Elevation refer to FEMA Maps of Township of Neptune and are for insurance purposes only. Refer to FEMA BFE website and municipal construction officials before building or elevating structures.  
Hot Water in utility room at Elev=12.3, Furnace in attic, A/c raised on deck at Elev=12.5. Crawl Space Opening 2' x 2.6  
7 Smart Vents -Model No.1540-520.

Signature \_\_\_\_\_ Date 7/15/2014

**SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)**

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 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 \_\_\_\_\_  feet  meters  above or  below the HAG.  
b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6-9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8-9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. 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  Unknown. The local official must certify this information in Section G.

**SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

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.

Property Owner's or Owner's Authorized Representative's Name \_\_\_\_\_

Address	City	State	ZIP Code
Signature	Date	Telephone	
Comments _____			

Check here if attachments.

**SECTION G - COMMUNITY INFORMATION (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.

- 1.  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.)
- 2.  A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- 3.  The following information (Items G4-G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy Issued
-------------------	------------------------	-----------------------------------------------------

- 7. This permit has been issued for:  New Construction  Substantial Improvement
- 8. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_
- 9. BFE or (in Zone AO) depth of flooding at the building site: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_
- 10. Community's design flood elevation: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

Local Official's Name	Title
Community Name	Telephone
Signature	Date
Comments _____	

Check here if attachments.

# Building Photographs

See Instructions for Item A6.

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

Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
5 STOCKTON AVENUE

MUMSON

State NJ ZIP Code 07756

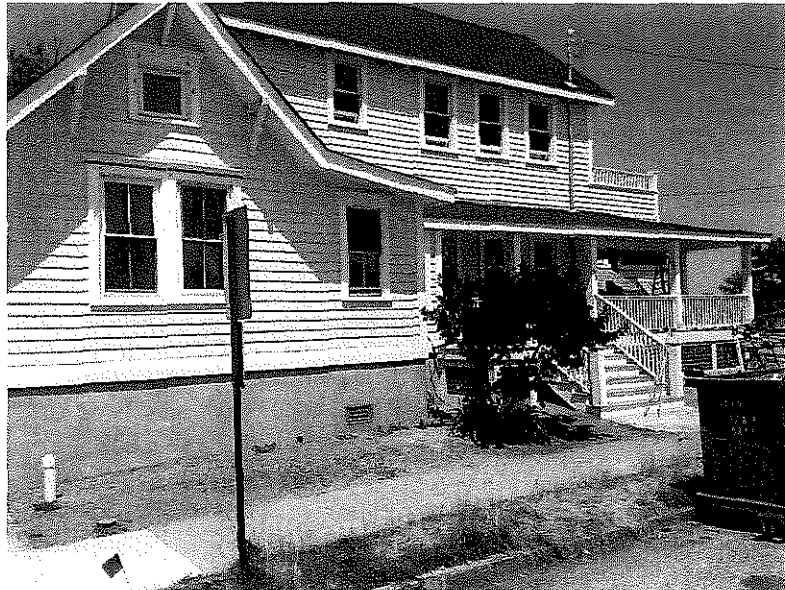
FOR INSURANCE COMPANY USE

Policy Number:

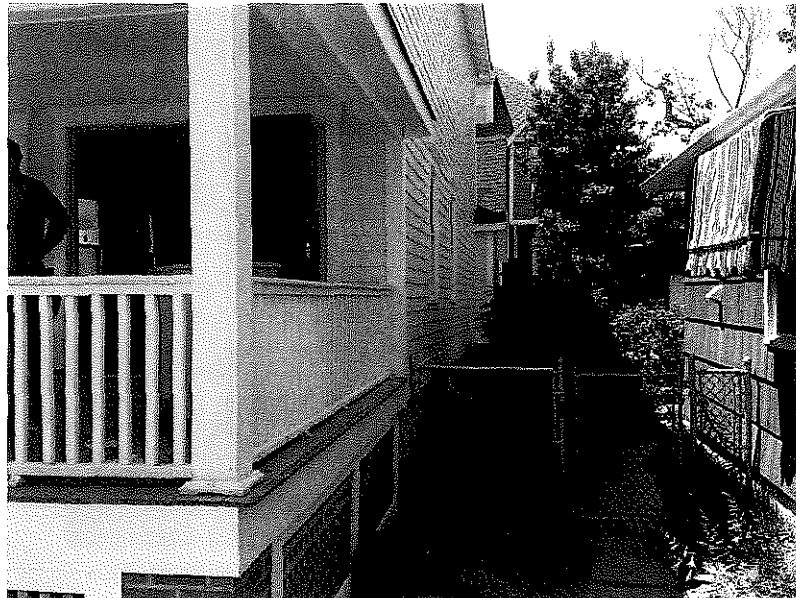
Company NAIC Number:

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**



**REAR VIEW**





# Building Photographs

Continuation Page

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

FOR INSURANCE COMPANY

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
55 STOCKTON AVENUE

Policy Number:

City RUMSON

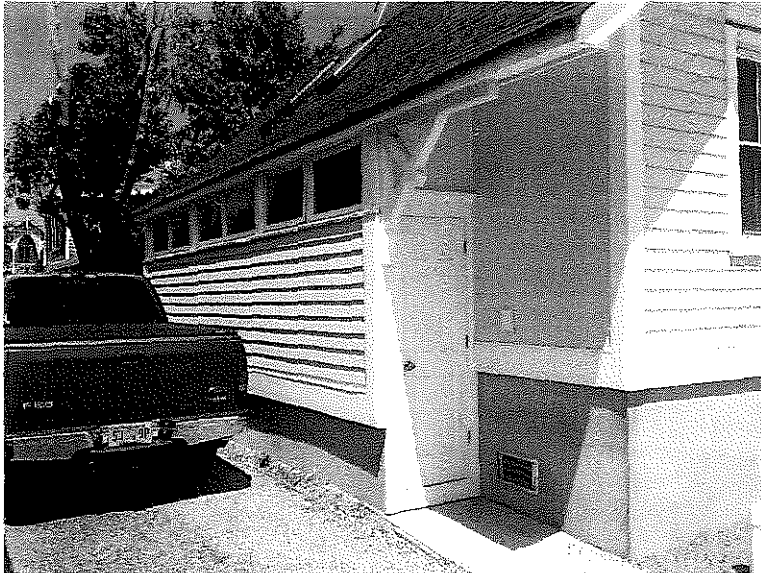
State NJ

ZIP Code 07756

Company NAIC 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.

## LEFT SIDE VIEW



## RIGHT SIDE VIEW



# ELEVATION CERTIFICATE

**IMPORTANT:** Follow the instructions on pages 1-9.

OMB No. 1660-0008  
 Expiration Date: July 31, 2015

## SECTION A - PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name **Richard & Christine Carlson**

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
**225 South Riverside Drive**

City **Neptune Township** State **NJ** ZIP Code **07753**

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)  
**Lot 17 Block 427** *Elevated structure*

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) **Residential**

A5. Latitude/Longitude: Lat. **40 11 20 50** Long. **74 02 20 58** Horizontal Datum:  NAD 1927  NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number **7**

A8. For a building with a crawlspace or enclosure(s):  
 a) Square footage of crawlspace or enclosure(s) **1710** sq ft  
 b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade **11**  
 c) Total net area of flood openings in A8.b **2200** sq in  
 d) Engineered flood openings?  Yes  No

A9. For a building with an attached garage: **N/A**  
 a) Square footage of attached garage \_\_\_\_\_ sq ft  
 b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade \_\_\_\_\_  
 c) Total net area of flood openings in A9.b \_\_\_\_\_ sq in  
 d) Engineered flood openings?  Yes  No

## SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number  
**Neptune, Township of 340317**

B2. County Name  
**Monmouth County**

B3. State  
**New Jersey**

B4. Map / Panel Number  
**34025C0333**

B5. Suffix  
**F**

B6. FIRM Index Date  
**09/25/2009**

B7. FIRM Panel Effective/ Revised Date  
**09/25/2009**

B8. Flood Zone(s)  
**AE**

B9. Base Flood Elevation(s) (Zone AO, use base flood depth)  
**9**

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  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

## SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

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: **KV6262** Vertical Datum: **1988 US feet**

Indicate elevation datum used for the elevations in items a) through h) below.  NGVD 1929  NAVD 1988  Other/Source: \_\_\_\_\_  
 Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

a) Top of bottom floor (including basement, crawlspace, or enclosure floor) **6 . 3**  feet  meters

b) Top of the next higher floor **16 . 1**  feet  meters

c) Bottom of the lowest horizontal structural member (V Zones only) **N/A**  feet  meters

d) Attached garage (top of slab) **N/A**  feet  meters

e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) **14 . 2**  feet  meters

f) Lowest adjacent (finished) grade next to building (LAG) **5 . 0**  feet  meters

g) Highest adjacent (finished) grade next to building (HAG) **6 . 5**  feet  meters


h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support **6 . 2**  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.

Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No

Check here if attachments.

Certifier's Name <b>John S. Simmons</b>		License Number <b>35880</b>	
Title <b>Owner</b>		Company Name <b>JSS Land Surveying</b>	
Address <b>12 Drake Road</b>		City <b>Mendham</b>	State <b>NJ</b>
Signature 		ZIP Code <b>07945</b>	Telephone <b>(973) 714-7152</b>
Date <b>09/16/2014</b>			

PLACE  
 SEAL  
 HERE

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <b>225 South Riverside Drive</b>			Policy Number:	
City <b>Neptune Township</b>	State <b>NJ</b>	ZIP Code <b>07753</b>	Company NAIC Number:	

**SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)**

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

Comments **Detached garage on slab elevation= 6.1. Photos taken August 2, 2014. Page 3 photos of front and right side, page 4 left and rear. Surveyor responsible for sections A, B and C. House raised with conc. slab under. Finished floor living space = 16.1 elevation. SmartVent Model No. 1540-520**

Signature \_\_\_\_\_ Date **09/16/2014**

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)**

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 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 \_\_\_\_\_  feet  meters  above or  below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_  feet  meters  above or  below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8–9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_  feet  meters  above or  below the HAG.

E3. Attached garage (top of slab) is \_\_\_\_\_  feet  meters  above or  below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_  feet  meters  above or  below the HAG.

E5. 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  Unknown. The local official must certify this information in Section G.

**SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

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.

Property Owner or Owner's Authorized Representative's Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ ZIP Code \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_ Telephone \_\_\_\_\_

Comments \_\_\_\_\_

Check here if attachments.

**SECTION G – COMMUNITY INFORMATION (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 Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3.  The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy Issued
-------------------	------------------------	-----------------------------------------------------

G7. This permit has been issued for:  New Construction  Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_  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: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

Local Official's Name \_\_\_\_\_ Title \_\_\_\_\_

Community Name \_\_\_\_\_ Telephone \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Comments \_\_\_\_\_

Check here if attachments.

See Instructions for Item A6.

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 225 South Riverside Drive			Policy Number:	
City Neptune Township	State NJ	ZIP Code 07753	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.



**BUILDING PHOTOGRAPHS**

Continuation Page

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 225 South Riverside Drive			Policy Number:
City Neptune Township	State NJ	ZIP Code 07753	Company NAIC 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.



**ICC-ES Evaluation Report****ESR-2074\***

Reissued December 1, 2012

This report is subject to renewal February 1, 2015.

[www.icc-es.org](http://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:**SMARTVENT PRODUCTS, INC.  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368  
[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto:info@smartvent.com)**EVALUATION SUBJECT:**SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS:  
FLOODVENT™ MODEL #1540-520; FLOODVENT™  
STACKING MODEL #1540-521; SMARTVENT™ MODEL  
#1540-510; SMARTVENT™ STACKING MODEL #1540-511;  
WOOD WALL FLOOD MODEL #1540-570; WOOD WALL  
FLOOD OVERHEAD DOOR MODEL #1540-574;  
FLOODVENT™ OVERHEAD DOOR MODEL #1540-524;  
SMARTVENT™ OVERHEAD DOOR MODEL #1540-514**1.0 EVALUATION SCOPE**

Compliance with the following codes:

- 2009 and 2006 *International Building Code*® (IBC)
- 2009 and 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Physical operation
- Water flow

**2.0 USES**

The Smart Vent® units are automatic foundation flood vents (AFFVs) employed to equalize hydrostatic pressure on nonfire-resistance-rated foundation walls, rolling-type overhead doors and building walls subject to rising or falling flood waters. The Smart Vent® units are intended for use where flood hazard areas have been established in accordance with IBC Section 1612.3 or IRC Section R3222.1. Certain models also allow natural ventilation in accordance with Section 1203 of the IBC or Section 408.1 of the IRC.

**3.0 DESCRIPTION****3.1 General:**

When subjected to pressure from rising water, the Smart Vent® AFFVs disengage, 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 AFFV 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 plate to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. 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 AFFVs comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 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 AFFVs must be installed in accordance with Section 4.0.

**3.3 Model Sizes:**

The FloodVENT™ Model #1540-520, SmartVENT™ Model #1540-510, FloodVENT™ Overhead Door Model #1540-524, and SmartVENT™ Overhead Door Model #1540-514 units measure 15<sup>3</sup>/<sub>4</sub> inches wide by 7<sup>3</sup>/<sub>4</sub> inches high (400 by 196.9 mm). The Wood Wall Flood Model #1540-570 and Wood Wall Flood Overhead Door Model #1540-574 units measure 14 inches wide by 8<sup>3</sup>/<sub>4</sub> inches high (355.6 by 222.25 mm). The SmartVENT™ Stacking Model #1540-511 and FloodVENT™ Stacking Model #1540-521 units measure 16 inches wide by 16 inches high (406.4 by 406.4 mm).

**3.4 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 mm<sup>2</sup>) 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 mm<sup>2</sup>) of net free area to supply natural ventilation. Other AFFVs recognized in this report do not offer natural ventilation.

**4.0 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. The mounting straps allow mounting in wood, masonry and

\*Revised July 2013

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.



concrete walls up to 12 inches (305 mm) thick. In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, the Smart Vent<sup>®</sup> AFFVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one AFFV 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 AFFV for every 400 square feet (37.2 m<sup>2</sup>) of enclosed area.
- Below the base flood elevation.
- With the bottom of the AFFV located a maximum of 12 inches (305.4 mm) above grade.

#### 5.0 CONDITIONS OF USE

The Smart Vent<sup>®</sup> AFFVs 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> AFFVs 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> AFFVs 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 Automatic Foundation Flood Vents (AC364), dated October 2007.

#### 7.0 IDENTIFICATION

The Smart VENT<sup>®</sup> 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).

# 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 Jason Bronfeld				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 373 South Riverside Drive				Company NAIC Number:	
City Neptune		State New Jersey		ZIP Code 07753	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Lot 8 Block 5417					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Residential</u>					
A5. Latitude/Longitude: Lat. <u>40°11'8.90"</u> Long. <u>74°02'27.48"</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>8</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>960</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>6</u>					
c) Total net area of flood openings in A8.b <u>1,200</u> sq in					
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage <u>338</u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>4</u>					
c) Total net area of flood openings in A9.b <u>652</u> sq in					
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Township of Neptune #340317			B2. County Name Monmouth		B3. State New Jersey
B4. Map/Panel Number 34025C0341	B5. Suffix F	B6. FIRM Index Date 09/25/2009	B7. FIRM Panel Effective/ Revised Date 09/25/2009	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					



**ION CERTIFICATE**

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

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 373 South Riverside Drive			Policy Number:
City Neptune	State New Jersey	ZIP Code 07753	Company NAIC Number

**SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)**

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 observations                      Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below:

NGVD 1929     NAVD 1988     Other/Source: \_\_\_\_\_

Datum used for building elevations must be the same as that used for the BFE.

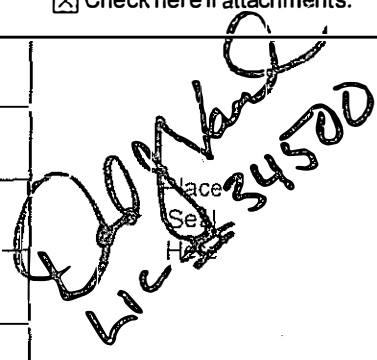

Check the measurement used.

- |                                                                                                                                  |             |                               |                                 |
|----------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------|---------------------------------|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor) _____                                                | <u>9.0</u>  | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor _____                                                                                            | <u>14.0</u> | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only) _____                                                        | N/A         | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| d) Attached garage (top of slab) _____                                                                                           | <u>9.2</u>  | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) _____ | <u>13.7</u> | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG) _____                                                                 | <u>8.2</u>  | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG) _____                                                                | <u>8.8</u>  | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support _____                               | <u>8.0</u>  | <input type="checkbox"/> feet | <input type="checkbox"/> 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     Check here if attachments.

Certifier's Name David J. Von Steenburg, P.L.S.	License Number 34500	
Title P.L.S.		
Company Name Morgan Engineering, LLC		
Address P.O. Box 5232		
City Toms River	State New Jersey	ZIP Code 08754
Signature 	Date 05/08/2017	Telephone (732) 270-9690

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)

The dwelling sits on a crawl space. The air conditioner unit sits outside on the deck at an elevation of 13.7'. The furnace sits on the finished floor at an elevation of 14.0'. The duct work in the crawl space is at an elevation of 12.3'. Engineered flood vent: Smart Vent 1540-510 and USA Flood Vent. Latitude and longitude recorded from Google Earth. Benchmark elevation established through GPS observations and OPUS. Nearest 3 benchmarks used: DI0616, DF7058 & DI3830. (Preliminary FEMA Zone/Elev - AE10 [34025C0341G - Revised Preliminary January 30, 2015])

(17-03339)

**ON CERTIFICATE**

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

<b>NOTE: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 73 South Riverside Drive			Policy Number:
City Neptune	State New Jersey	ZIP Code 07753	Company NAIC Number

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED)  
FOR ZONE AO AND ZONE A (WITHOUT BFE)**

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 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 \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. 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  Unknown. The local official must certify this information in Section G.

**SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

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.

Property Owner or Owner's Authorized Representative's Name			
Address	City	State	ZIP Code
Signature	Date	Telephone	

Comments

Check here if attachments.



**ION CERTIFICATE**

**BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

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.  
373 South Riverside Drive

**FOR INSURANCE COMPANY USE**  
Policy Number:

City State ZIP Code  
Neptune New Jersey 07753

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.

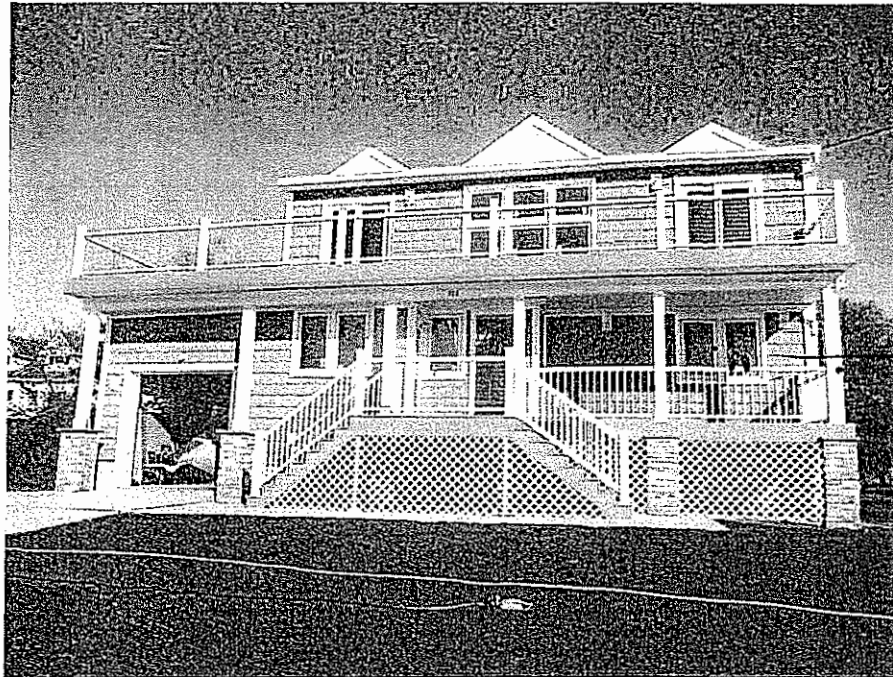


Photo One

Photo One Caption Front view



Photo Two

Photo Two Caption Rear view

**ION CERTIFICATE**

**BUILDING PHOTOGRAPHS**

Continuation Page

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

<b>INSTRUCTIONS:</b> In these spaces, copy the corresponding information from Section A.			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 573 South Riverside Drive			Policy Number:
City Neptune	State New Jersey	ZIP Code 07753	Company NAIC 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.

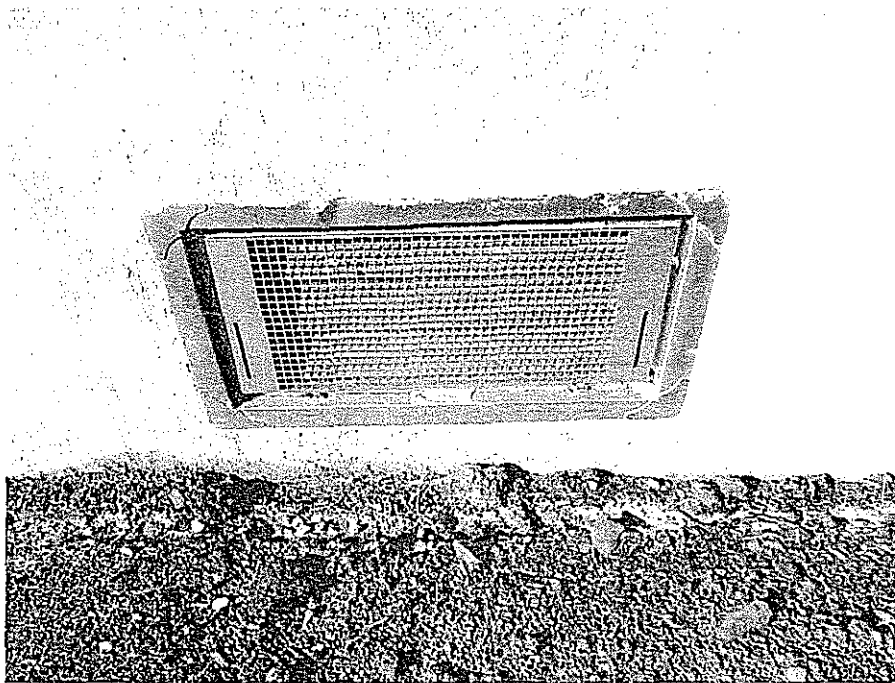


Photo One

Photo One Caption Engineered flood vent: Smart Vent 1540-510

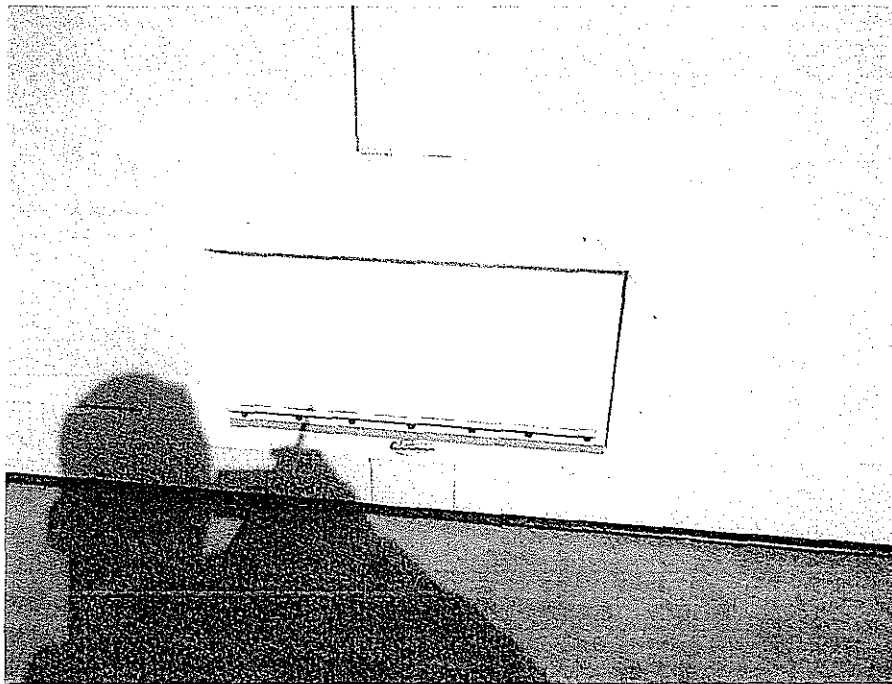


Photo Two

Photo Two Caption Engineered flood vent: USA Flood Air Vent



ICC  
EVALUATION  
SERVICE

In Cooperation with



*Most Widely Accepted and Trusted*

# ICC-ES Evaluation Report

## ESR-2074

ICC-ES | (800) 423-6587 | (562) 699-0543 | [www.icc-es.org](http://www.icc-es.org)

Reissued 02/2019

This report is subject to renewal 02/2021.

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"*



A Subsidiary of

*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.*



Copyright © 2019 ICC Evaluation Service, LLC. All rights reserved.



# ICC-ES Evaluation Report

**ESR-2074**

Reissued February 2019

This report is subject to renewal February 2021.

[www.icc-es.org](http://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:**

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

<sup>†</sup>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 mm<sup>2</sup>) 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 mm<sup>2</sup>) of net free area to supply natural ventilation. Other FVs recognized 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® 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®:**

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

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 CBC and CRC Supplement

Reissued February 2019

This report is subject to renewal February 2021.

[www.icc-es.org](http://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:

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® 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.



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 October 2017).
- 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 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](http://www.smartvent.com)  
[info@smartvent.com](mailto:info@smartvent.com)

TABLE 1—MODEL SIZES

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)
FloodVENT <sup>®</sup>	1540-520	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT <sup>®</sup>	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT <sup>®</sup> Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT <sup>®</sup> Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT <sup>®</sup>	1540-570	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT <sup>®</sup> 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

For SI: 1 inch = 25.4 mm; 1 square foot = m<sup>2</sup>

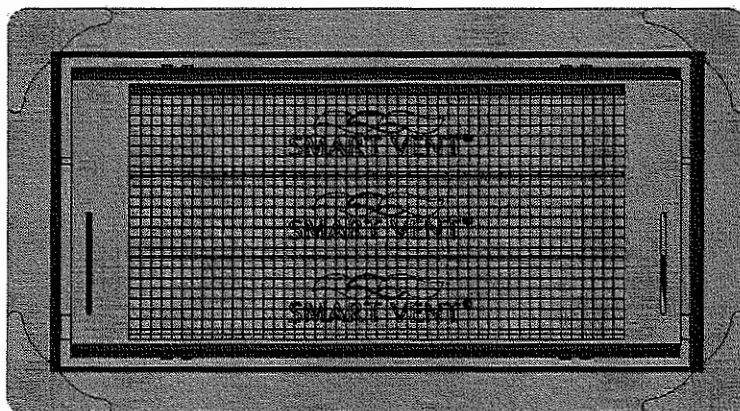


FIGURE 1—SMART VENT: MODEL 1540-510

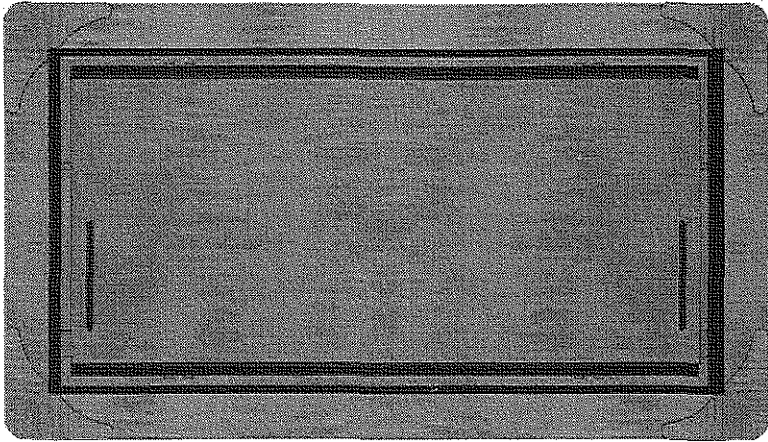


FIGURE 2—SMART VENT MODEL 1540-520

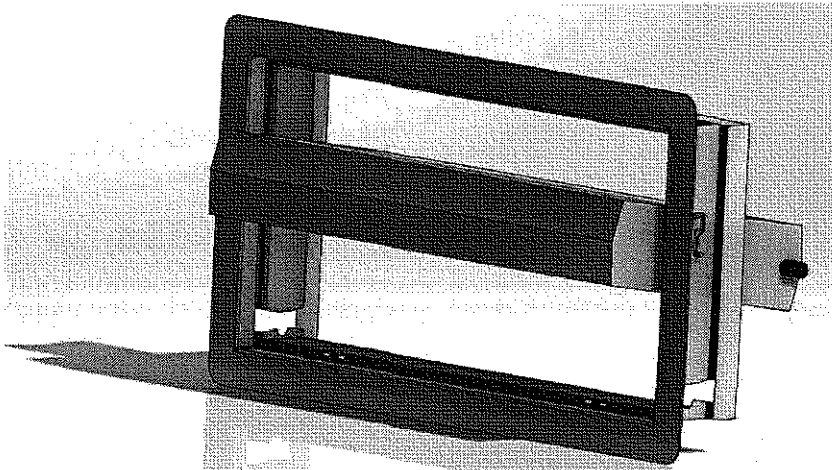


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

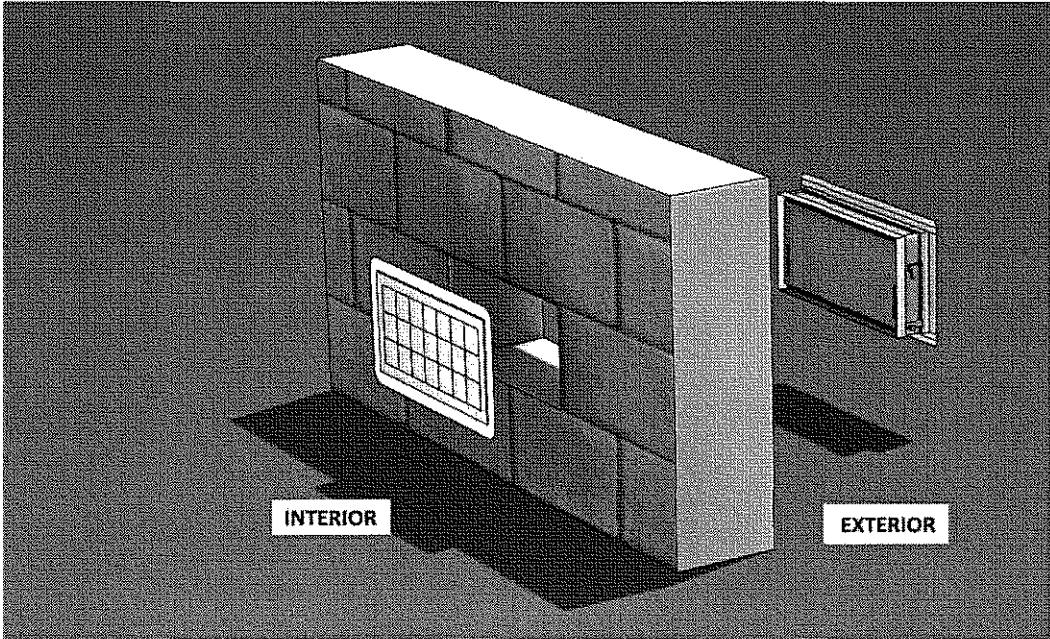


FIGURE 4—FLOOD VENT SEALING KIT

# 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 EVELYN SCHEIDT				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 106 NORTH RIVERSIDE DR.				Company NAIC Number:	
City NEPTUNE		State New Jersey		ZIP Code 07753	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) LOT 20 IN BLOCK 451					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)				RESIDENTIAL	
A5. Latitude/Longitude: Lat. 40°11'49.0"		Long. -74°02'39.3"		Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>7</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s)		<u>687</u> sq ft			
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade				<u>4</u>	
c) Total net area of flood openings in A8.b				<u>800</u> sq in	
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage		<u>600</u> sq ft			
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade				<u>3</u>	
c) Total net area of flood openings in A9.b				<u>600</u> sq in	
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number NEPTUNE TOWNSHIP 340317			B2. County Name MONMOUTH		B3. State New Jersey
B4. Map/Panel Number 34025C0333	B5. Suffix F	B6. FIRM Index Date 09/25/2009	B7. FIRM Panel Effective/Revised Date 09/25/2009	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

*Stanley Arnold* PIS# 29182



**CERTIFICATE**

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

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

**FOR INSURANCE COMPANY USE**

Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
NORTH RIVERSIDE DR.

Policy Number:

APTUNE

State  
New Jersey

ZIP Code  
07753

Company NAIC Number

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED)  
FOR ZONE AO AND ZONE A (WITHOUT BFE)**

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 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 \_\_\_\_\_  feet  meters  above or  below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. 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  Unknown. The local official must certify this information in Section G.

**SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

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.

Property Owner or Owner's Authorized Representative's Name

Address City State ZIP Code

Signature Date Telephone

Comments

Check here if attachments.

**ELEVATION CERTIFICATE**

OMB No. 1660-008  
Expiration Date: N/A

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

**FOR INSURANCE CL.**

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
106 NORTH RIVERSIDE DR.

Policy Number:

City  
NEPTUNE

State  
New Jersey

ZIP Code  
07753

Company NAIC Number

**SECTION G – COMMUNITY INFORMATION (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 Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3.  The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number

G5. Date Permit Issued

G6. Date Certificate of Compliance/Occupancy Issued

G7. This permit has been issued for:  New Construction  Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_  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: \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

Local Official's Name

Title

Community Name

Telephone

Signature

Date

Comments (including type of equipment and location, per C2(e), if applicable)

Check here if attachments.

**ELEVATION CERTIFICATE**

**BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

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

In these spaces, copy the corresponding information from Section A.		<b>FOR INSURANCE COMPANY USE</b>	
Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. NORTH RIVERSIDE DR.		Policy Number:	
State New Jersey		ZIP Code 07753	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

Photo One Caption

FRONT 11-04-2016



Photo Two

Photo Two Caption

REAR 11-04-2016

**ELEVATION CERTIFICATE**

**BUILDING PHOTOGRAPHS**

Continuation Page

OMB No. 1660-0047  
Expiration Date: N/A

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

**FOR INSURANCE CLAIMS**

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
106 NORTH RIVERSIDE DR.

Policy Number:

City State ZIP Code  
NEPTUNE New Jersey 07753

Company NAIC 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 One

Photo One Caption

RIGHT SIDE 11-04-2016



Photo Two

Photo Two Caption

LEFT SIDE 11-04-2016



ICC  
EVALUATION  
SERVICE

Cooperates with

Innovation  
RESEARCH LABS

*Most Widely Accepted and Trusted*

# ICC-ES Evaluation Report

ICC-ES | (800) 423-6587 | (562) 699-0543 | [www.icc-es.org](http://www.icc-es.org)

## ESR-2074

Reissued 02/2017

This report is subject to renewal 02/2019.

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**



Look for the trusted marks of Conformity!

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



A Subsidiary of

INTERNATIONAL  
CODE COUNCIL

*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.*



Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.

# ICC-ES Evaluation Report

**ESR-2017**

Reissued February 2017

Revised November 2017

This report is subject to renewal February 2019.

[www.icc-es.org](http://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:**

**SMARTVENT PRODUCTS, INC.**  
 430 ANDBRO DRIVE, UNIT 1  
 PITMAN, NEW JERSEY 08071  
 (877) 441-8368  
[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto: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)<sup>†</sup>

<sup>†</sup>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 mm<sup>2</sup>) 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 mm<sup>2</sup>) 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 m<sup>2</sup>) of enclosed area, except that the SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 must be

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.



...d with a minimum of one FV for every square feet (37.2 m<sup>2</sup>) of enclosed area.

...allow 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 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT®	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT® Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	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® 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 = m<sup>2</sup>

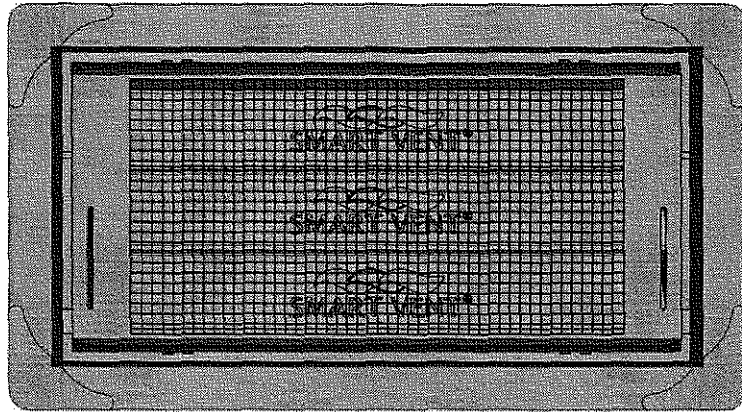


FIGURE 1—SMART VENT: MODEL 1540-510

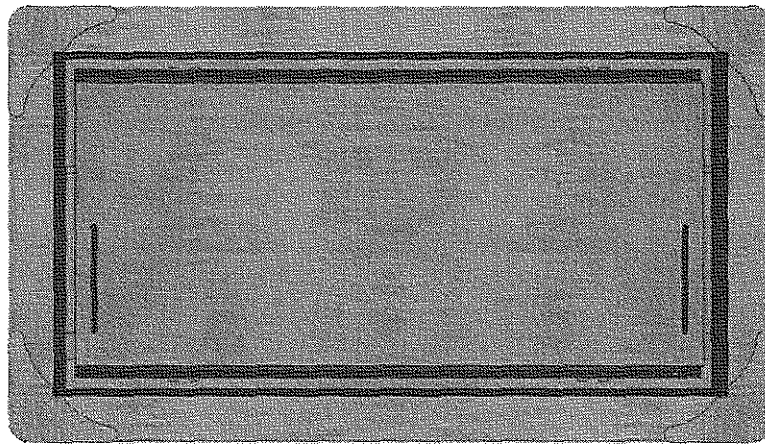


FIGURE 2—SMART VENT MODEL 1540-520

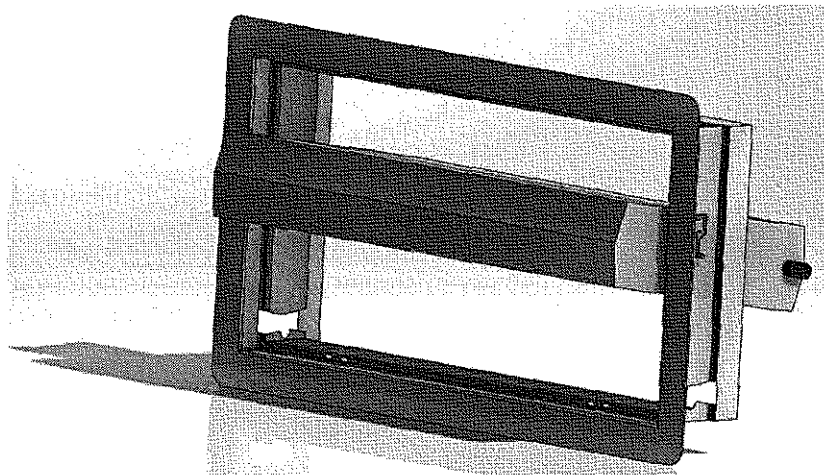


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

## ICC-ES Evaluation Report

## ESR-2074 CBC and CRC Supplement

Issued February 2017

Revised November 2017

This report is subject to renewal February 2019.

[www.icc-es.org](http://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:

SMARTVENT PRODUCTS, INC.  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368  
[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto: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 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® 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 2017 and revised November 2017.

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 2017

Revised November 2017

This report is subject to renewal February 2019.

[www.icc-es.org](http://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:

SMARTVENT PRODUCTS, INC.

430 ANDBRO DRIVE, UNIT 1

PITMAN, NEW JERSEY 08071

(877) 441-8368

[www.smartvent.com](http://www.smartvent.com)

[info@smartvent.com](mailto:info@smartvent.com)

### EVALUATION SUBJECT:

SMARTVENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514

### 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 Vent® 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 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 2017 and revised November 2017.

# ELEVATION CERTIFICATE

**IMPORTANT:** Follow the instructions on pages 1-9.

OMB No. 1660-0008  
 Expiration Date: July 31, 2015

## SECTION A - PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name <b>Gregory and Ivy Jegou</b>		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <b>112 Melrose Avenue</b>		Company NAIC Number:
City <b>Neptune</b>	State <b>NJ</b>	ZIP Code <b>07753</b>
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) <b>Tax Lot 5321 in Block 2 <u>470 - 11</u></b>		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <b>Residential</b>		
A5. Latitude/Longitude: Lat. <b>40d 11m 41 14s N</b> Long. <b>74d 02m 25 89s W</b>		Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number _____		
A8. For a building with a crawlspace or enclosure(s):		A9. For a building with an attached garage:
a) Square footage of crawlspace or enclosure(s) <u>1,578</u> sq ft		a) Square footage of attached garage <u>n/a</u> sq ft
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>9</u>		b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>n/a</u>
c) Total net area of flood openings in A8.b <u>1,800</u> sq in		c) Total net area of flood openings in A9.b <u>n/a</u> sq in
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No

## SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number <b>Township of Neptune, 340317</b>		B2. County Name <b>Monmouth</b>		B3. State <b>NJ</b>	
Map/Panel Number <b>34025C0333</b>	B5. Suffix <b>F</b>	B6. FIRM Index Date <b>09/25/2009</b>	B7. FIRM Panel Effective/Revised Date <b>09/25/2009</b>	B8. Flood Zone(s) <b>AE</b>	B9. Base Flood Elevation(s) (Zone A0, use base flood depth) <b>9</b>
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: ___ / ___ / ___ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

## SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

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/A 1 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  NAVD 1988  Other/Source: \_\_\_\_\_  
 Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	<u>8 . 0</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor	<u>13 . 5</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	<u>n/a .</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab)	<u>n/a .</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	<u>13 . 5</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	<u>7 . 6</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	<u>8 . 0</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	<u>7 . 6</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> 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.

Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No  
 Check here if attachments.

Certifier's Name <b>Michael J. Williams</b>		License Number <b>NJ G25800</b>	
Title <b>Land Surveyor</b>		Company Name <b>Michael J. Williams Land Surveying, LLC</b>	
Address <b>56 Main Avenue</b>		City <b>Ocean Grove</b>	State <b>NJ</b>
Signature <i>Michael J. Williams</i>		ZIP Code <b>07756</b>	Telephone <b>(732) 988-6440</b>
Date <b>07/14/2015</b>			

PLACE  
SEAL  
HERE

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <b>112 Melrose Avenue</b>			Policy Number:
City <b>Neptune</b>	State <b>NJ</b>	ZIP Code <b>07753</b>	Company NAIC Number:

**SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)**

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

Comments Premises is located in Zone AE10 as shown on Revised Preliminary Map 34025C0333G. All mechanical equipment including furnace and hot water heater are located at or above elevation 13.5. All Flood Vents are Smart Vents . Model 1540-510

Signature *[Handwritten Signature]* Date **07/14/2015**

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)**

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 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 \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8–9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_ . \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. 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  Unknown. The local official must certify this information in Section G.

**SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

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.

Property Owner or Owner's Authorized Representative's Name \_\_\_\_\_

Address _____	City _____	State _____	ZIP Code _____
Signature _____	Date _____	Telephone _____	

Comments \_\_\_\_\_  Check here if attachments.

**SECTION G – COMMUNITY INFORMATION (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 Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3.  The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number _____	G5. Date Permit Issued _____	G6. Date Certificate Of Compliance/Occupancy Issued _____
-------------------------	------------------------------	-----------------------------------------------------------

G7. This permit has been issued for:  New Construction  Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: \_\_\_\_\_ . \_\_\_\_\_  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: \_\_\_\_\_ . \_\_\_\_\_  feet  meters Datum \_\_\_\_\_

Local Official's Name _____	Title _____
Community Name _____	Telephone _____
Signature _____	Date _____

Comments \_\_\_\_\_  Check here if attachments.



**BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 112 Melrose Avenue			Policy Number:
City Neptune	State NJ	ZIP Code 07753	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

7-14-15



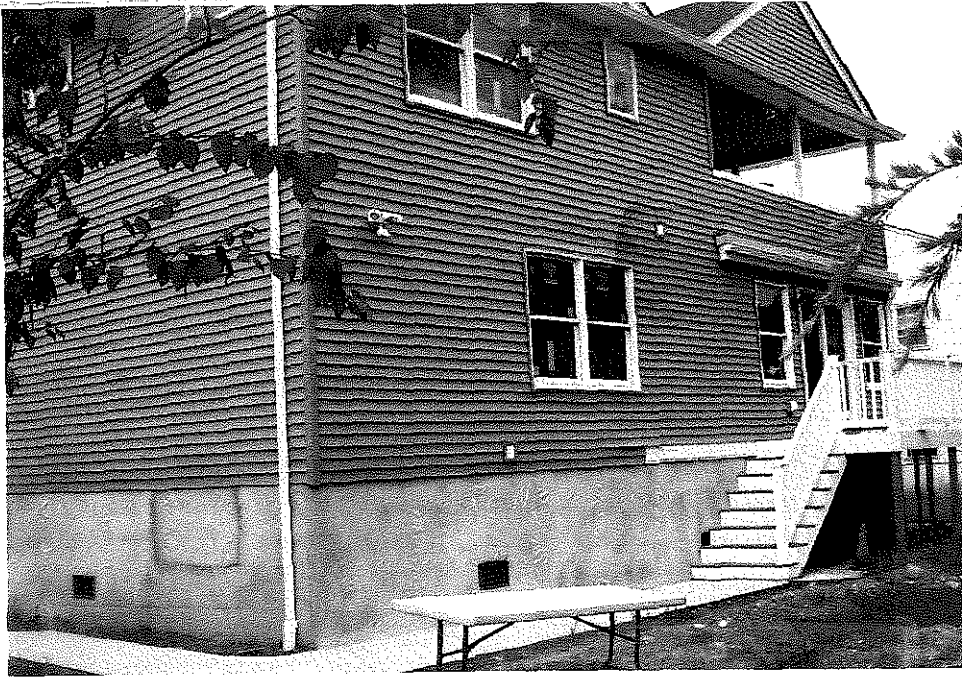
LEFT SIDE VIEW

**BUILDING PHOTOGRAPHS**

Continuation Page

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 112 Melrose Avenue			Policy Number:	
City Neptune	State NJ	ZIP Code 07753	Company NAIC 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.



REAR VIEW

7-14-15



RIGHT SIDE  
VIEW

7-14-15



Most Widely Accepted and Trusted

# ICC-ES Report

## ESR-2074

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

Reissued 02/2015

This report is subject to renewal 02/2017.

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



Look for the trusted marks of Conformity!

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



A Subsidiary of

*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\***

Reissued February 2015

This report is subject to renewal February 2017.

[www.icc-es.org](http://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:****SMARTVENT PRODUCTS, INC.**  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto: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:**

- 2012, 2009 and 2006 *International Building Code*® (IBC)
- 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 2.6.2.2 of ASCE/SEI 24 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 mm<sup>2</sup>) 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 mm<sup>2</sup>) 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. The mounting straps allow mounting in masonry and concrete walls up to 12 inches (305 mm) thick. In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, 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 m<sup>2</sup>) 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 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

\*Revised July 2015

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.



grade or floor and finished exterior grade immediately under each opening.

are permitted for use in conjunction with breakaway walls in other areas.

**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

**6.0 EVIDENCE SUBMITTED**

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated October 2013 (editorially revised May 2014).

**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 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT®	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT® Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	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® 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 = m<sup>2</sup>

# 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 George V. Kaden				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 93 Inskip Avenue				Company NAIC Number:	
City Township Of Neptune		State New Jersey		ZIP Code 07756	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Tax Block 285 Lot 8					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Residential</u>					
A5. Latitude/Longitude: Lat. <u>40d 12m 28.41s N</u> Long. <u>74d 00m 41.56s N</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>8</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>1008.00</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>7</u>					
c) Total net area of flood openings in A8.b <u>1400.00</u> sq in					
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage <u>N/A</u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>N/A</u>					
c) Total net area of flood openings in A9.b <u>N/A</u> sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Township Of Neptune / 340317			B2. County Name Monmouth		B3. State New Jersey
B4. Map/Panel Number 34025C0334	B5. Suffix F	B6. FIRM Index Date 09-25-2009	B7. FIRM Panel Effective/ Revised Date 09-25-2009	B8. Flood Zone(s) x	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

# ELEVATION CERTIFICATE

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

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 93 Inskip Avenue			Policy Number:	
City Township Of Neptune	State New Jersey	ZIP Code 07756	Company NAIC Number	

## SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

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: Neptune Twp. Mon. #3      Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929     NAVD 1988     Other/Source: \_\_\_\_\_

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

- |                                                                                                                               |             |                                          |                                 |
|-------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------|---------------------------------|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor)                                                   | <u>9.8</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor                                                                                               | <u>14.5</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only)                                                           | <u>N/A</u>  | <input type="checkbox"/> feet            | <input type="checkbox"/> meters |
| d) Attached garage (top of slab)                                                                                              | <u>N/A</u>  | <input type="checkbox"/> feet            | <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building<br>(Describe type of equipment and location in Comments) | <u>14.5</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG)                                                                    | <u>9.8</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG)                                                                   | <u>10.0</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support                                  | <u>9.1</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> 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     Check here if attachments.

Certifier's Name Michael J. Williams	License Number NJ GS25800	Place Seal Here
Title Professional Land Surveyor		
Company Name Michael J. Williams Land Surveying, LLC		
Address 56 Main Avenue		
City Ocean Grove	State New Jersey	

Signature 	Date 09-27-2018	Telephone (732) 988-6440	Ext.
---------------	--------------------	-----------------------------	------

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)

+ All flood vents are Smartvents Model 1540-510. See specifications attached. Heating system and hot water heater are all situated above elevation 14.5. The air conditioner condenser unit is on a timber platform adjacent to the exterior of the dwelling at finished first floor elevation of 14.5.

**ATION CERTIFICATE**

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

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 93 Inskip Avenue			Policy Number:
City Township Of Neptune	State New Jersey	ZIP Code 07756	Company NAIC Number

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED)  
FOR ZONE AO AND ZONE A (WITHOUT BFE)**

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 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 \_\_\_\_\_  feet  meters  above or  below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_  feet  meters  above or  below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E3. Attached garage (top of slab) is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is \_\_\_\_\_  feet  meters  above or  below the HAG.
- E5. 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  Unknown. The local official must certify this information in Section G.

**SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

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.

Property Owner or Owner's Authorized Representative's Name

Address	City	State	ZIP Code
---------	------	-------	----------

Signature	Date	Telephone
-----------	------	-----------

Comments

Check here if attachments.





# BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2018

## 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.

93 Inskip Avenue

FOR INSURANCE COMPANY USE

Policy Number:

City

Township Of Neptune

State

New Jersey

ZIP Code

07756

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.



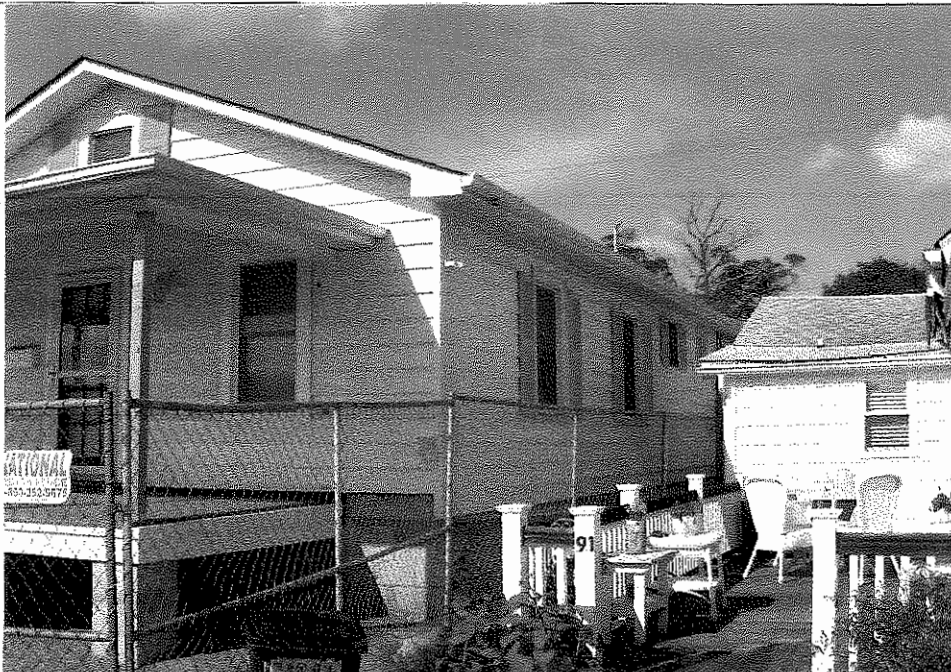
FRONT VIEW

10/04/18

Photo One

Photo One Caption

Clear Photo One



RIGHT SIDE VIEW

10/04/18

Photo Two

Photo Two Caption

Clear Photo Two

ATION 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.

FOR INSURANCE COMPANY USE

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.  
93 Inskip Avenue

Policy Number:

City State ZIP Code  
Township Of Neptune New Jersey 07756

Company NAIC 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.



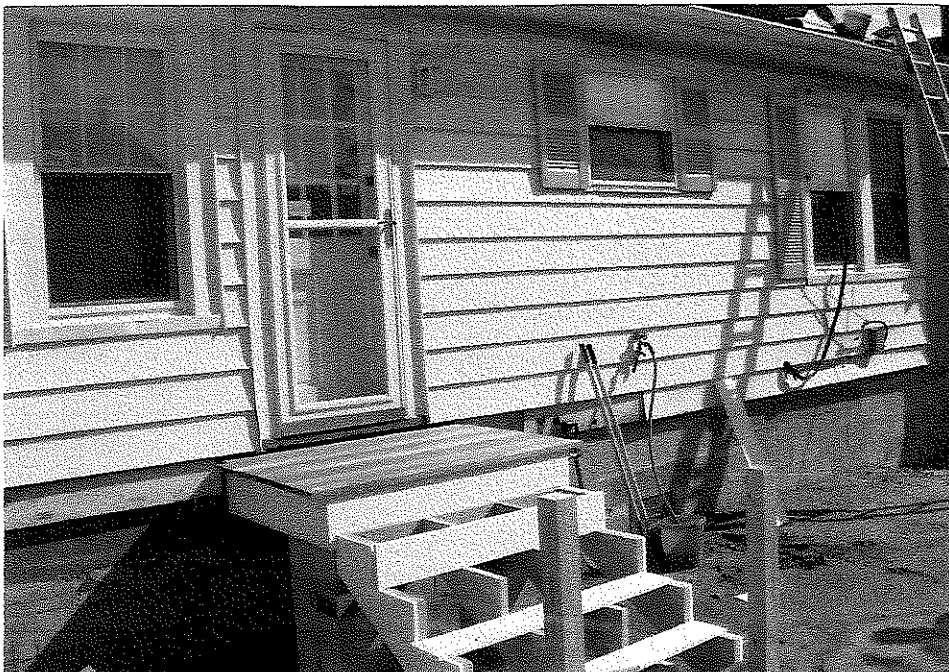
REAR VIEW

10/04/18

Photo Three

Photo Three Caption

Clear Photo Three



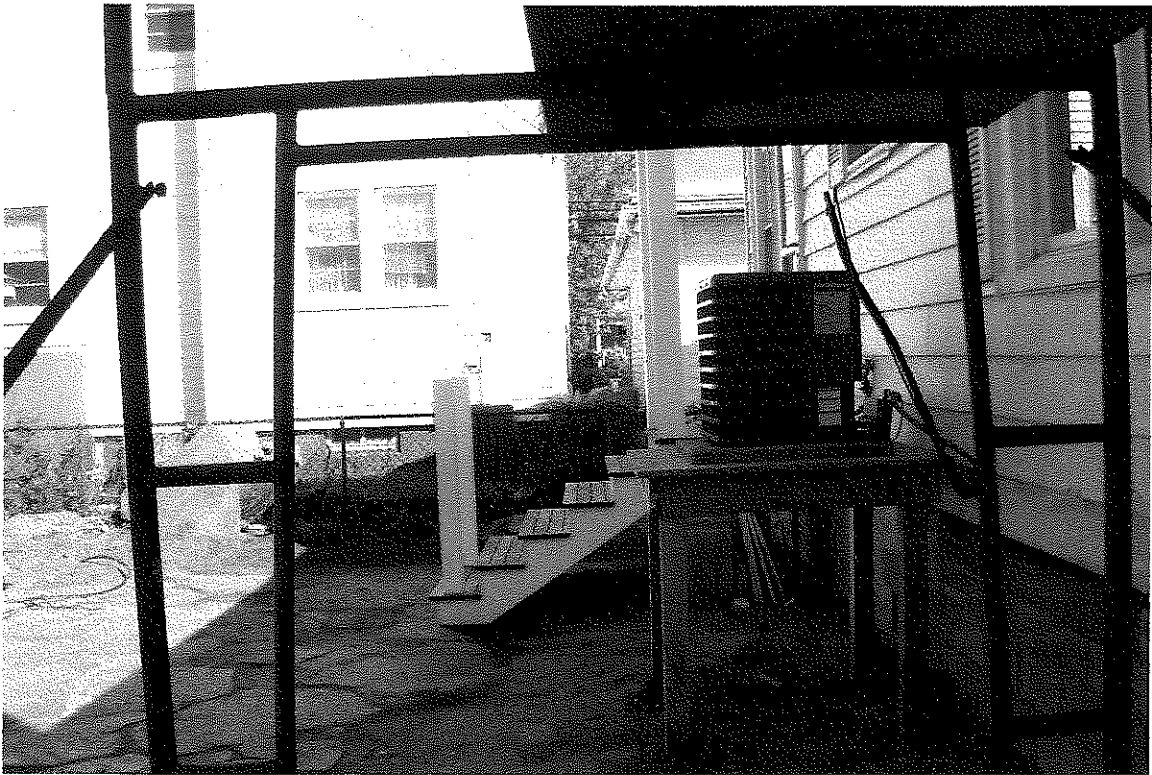
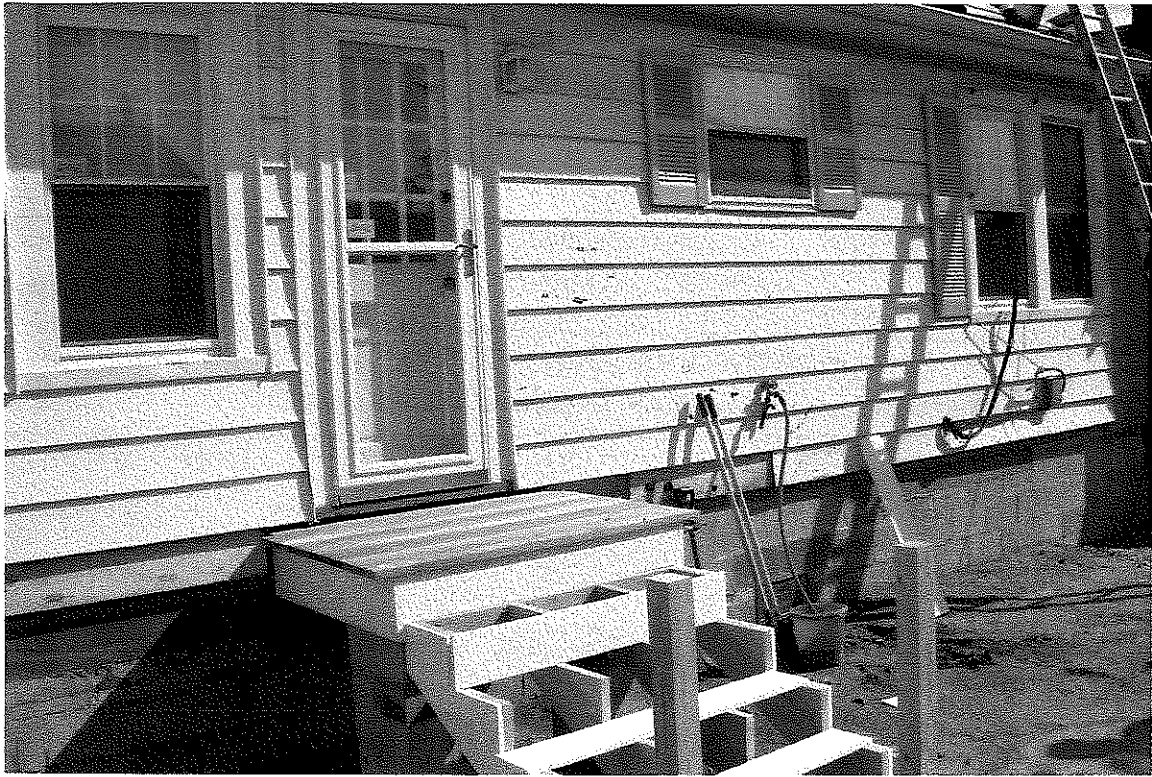
LEFT SIDE VIEW

10/04/18

Photo Four

Photo Four Caption

Clear Photo Four





ICC  
EVALUATION  
SERVICE

*Most Widely Accepted and Trusted*

In Cooperation with



# ICC-ES Evaluation Report

# ESR-2074

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

Reissued 02/2017  
This report is subject to renewal 02/2019.

**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**



Look for the trusted marks of Conformity!

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

*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.*

Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.



A Subsidiary of



**ICC-ES Evaluation Report**

**ESR-2074**

Reissued February 2017

Revised November 2017

This report is subject to renewal February 2019.

[www.icc-es.org](http://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:**

**SMARTVENT PRODUCTS, INC.**  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368  
[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto: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)<sup>†</sup>

<sup>†</sup>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 mm<sup>2</sup>) 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 mm<sup>2</sup>) 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 m<sup>2</sup>) 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 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.

**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 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT®	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT® Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	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® 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 = m<sup>2</sup>

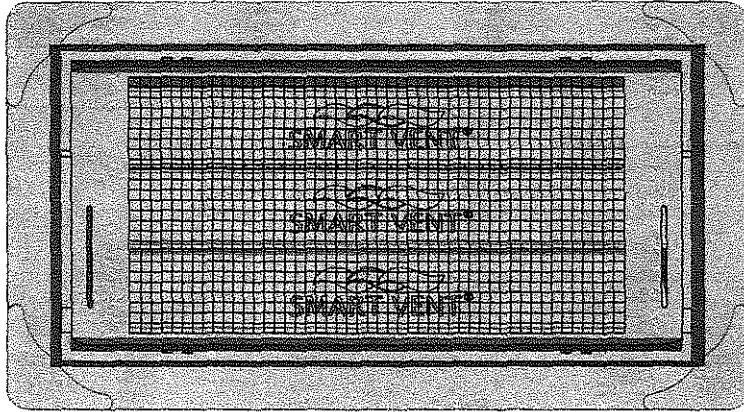


FIGURE 1—SMART VENT: MODEL 1540-510

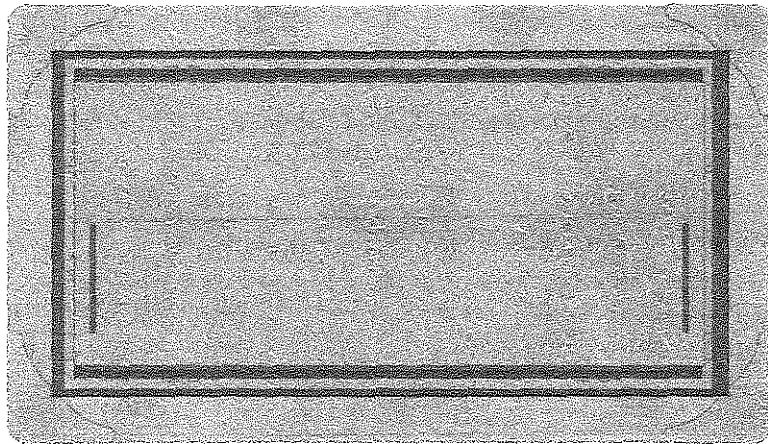


FIGURE 2—SMART VENT MODEL 1540-520

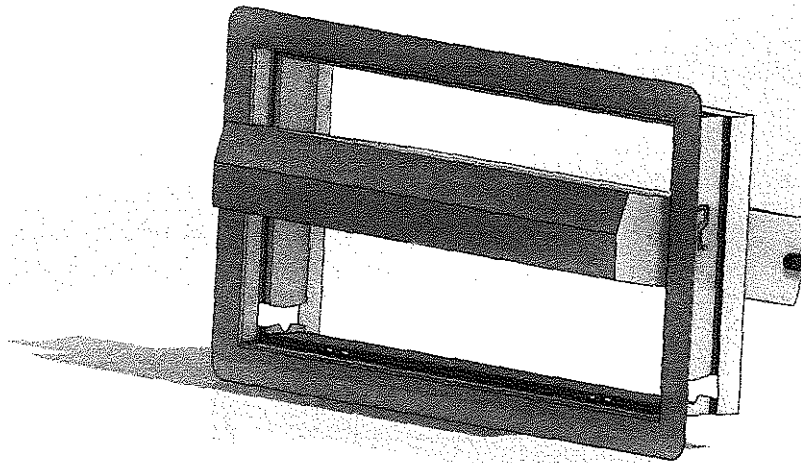


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN



## ICC-ES Evaluation Report

## ESR-2074 CBC and CRC Supplement

Issued February 2017

Revised November 2017

This report is subject to renewal February 2019.

[www.icc-es.org](http://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:

**SMARTVENT PRODUCTS, INC.**

430 ANDBRO DRIVE, UNIT 1

PITMAN, NEW JERSEY 08071

(877) 441-8368

[www.smartvent.com](http://www.smartvent.com)

[info@smartvent.com](mailto: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 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® 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 2017 and revised November 2017.

## ICC-ES Evaluation Report

## ESR-2074 FBC Supplement

Reissued February 2017

Revised November 2017

This report is subject to renewal February 2019.

[www.icc-es.org](http://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:

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

[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto: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 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 Vent® 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 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 2017 and revised November 2017.

# 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 PHIL AND MICHELLE ERBE				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 116 BEVERLY WAY				Company NAIC Number:	
City NEPTUNE TOWNSHIP		State New Jersey		ZIP Code 07753	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) LOT 9 BLOCK 475					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)				RESIDENTIAL	
A5. Latitude/Longitude: Lat. 40 - 11' - 39.296" Long. 74 - 02' - 27.893" Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>7</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>1,094</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>6</u>					
c) Total net area of flood openings in A8.b <u>1,200</u> sq in					
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage <u>336</u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>2</u>					
c) Total net area of flood openings in A9.b <u>400</u> sq in					
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number NEPTUNE TWP. 340317			B2. County Name MONMOUTH		B3. State New Jersey
B4. Map/Panel Number 34025C0333	B5. Suffix F	B6. FIRM Index Date 09/25/2009	B7. FIRM Panel Effective/ Revised Date 09/25/2009	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

# ELEVATION CERTIFICATE

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

**INSTRUMENT:** 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.  
6 BEVERLY WAY

Policy Number:

City: NEPTUNE TOWNSHIP  
State: New Jersey  
ZIP Code: 07753

Company NAIC Number

## SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

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 OBSERVATIONS Vertical Datum: NAVD'88

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929  NAVD 1988  Other/Source: \_\_\_\_\_

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

- |                                                                                                                            |             |                                          |                                 |
|----------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------|---------------------------------|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor)                                                | <u>6.2</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor                                                                                            | <u>15.2</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only)                                                        | <u>N/A</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| d) Attached garage (top of slab)                                                                                           | <u>5.8</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) | <u>12.6</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG)                                                                 | <u>5.3</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG)                                                                | <u>5.8</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support                               | <u>5.2</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> 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  Check here if attachments.

Certifier's Name: KENNETH P. FRANK  
License Number: PLS 36727

Title: PROFESSIONAL LAND SURVEYOR

Company Name: K.F.2.T. PROFESSIONAL LAND SURVEYORS

Address: P.O. BOX 521

City: COLTS NECK  
State: New Jersey  
ZIP Code: 07722

Signature: KENNETH P. FRANK  
Date: 01/17/2017  
Telephone: (988) 692-7853

Place  
Seal  
Here

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)  
LOWEST ELEVATION OF MACHINERY SERVICING THE DWELLING IS THE AC UNIT OUTSIDE ON A ELEVATED PLATFORM AT ELEVATION 12.6. ABFE : 1% ELEVATION 10 AND 0.2% ELEVATION 12. SMART VENT MODEL NO. 1540-510.

# BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2018

## ELEVATION CERTIFICATE

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

**FOR INSURANCE COMPANY USE**

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

Policy Number:

6 BEVERLY WAY

Company NAIC Number

City  
NEPTUNE TOWNSHIP

State  
New Jersey

ZIP Code  
07753

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

Photo One Caption FRONT OF HOUSE DATE OF PHOTO 01-17-2017



Photo Two

Photo Two Caption RIGHT REAR OF HOUSE DATE OF PHOTO 01-17-2017

**ION CERTIFICATE**

**BUILDING PHOTOGRAPHS**

Continuation Page

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

<b>INSTRUCTIONS:</b> In these spaces, copy the corresponding information from Section A.			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 16 BEVERLY WAY			Policy Number:
City NEPTUNE TOWNSHIP	State New Jersey	ZIP Code 07753	Company NAIC 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 One

Photo One Caption RIGHT REAR OF HOUSE DATE OF PHOTO 01-17-2017



Photo Two

Photo Two Caption FRONT LEFT SIDE OF HOUSE DATE OF PHOTO 01-17-2017



Most Widely Accepted and Trusted

# ICC-ES Report

## ESR-2074

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

Reissued 02/2015

This report is subject to renewal 02/2017.

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



Look for the trusted marks of Conformity!

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



A Subsidiary of

*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\***

Reissued February 2015

This report is subject to renewal February 2017.

[www.icc-es.org](http://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:****SMARTVENT PRODUCTS, INC.  
430 ANDBRO DRIVE, UNIT 1  
PITMAN, NEW JERSEY 08071  
(877) 441-8368**[www.smartvent.com](http://www.smartvent.com)  
[info@smartvent.com](mailto: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:**

- 2012, 2009 and 2006 *International Building Code*® (IBC)
- 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 2.6.2.2 of ASCE/SEI 24 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 mm<sup>2</sup>) 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 mm<sup>2</sup>) 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. The mounting straps allow mounting in masonry and concrete walls up to 12 inches (305 mm) thick. In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, 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 m<sup>2</sup>) 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 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

\*Revised July 2015

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.





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 October 2013 (editorially revised May 2014).

### 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 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT®	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT® Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	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® 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 = m<sup>2</sup>