

# 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 JOFFE				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 8 NORTH BUFFALO AVENUE				Company NAIC Number:	
City VENTNOR		State New Jersey		ZIP Code 08406	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) BLOCK 126, LOT 19					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>RESIDENTIAL</u>					
A5. Latitude/Longitude: Lat. <u>39° 20' 13"</u> Long. <u>74° 29' 14"</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>7</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>831.00</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>8</u>					
c) Total net area of flood openings in A8.b <u>1600.00</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 checked="" type="checkbox"/> No					
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number VENTNOR 345326			B2. County Name ATLANTIC COUNTY		B3. State New Jersey
B4. Map/Panel Number 345326/0001	B5. Suffix B	B6. FIRM Index Date 06-18-1971	B7. FIRM Panel Effective/ Revised Date 09-15-1983	B8. Flood Zone(s) A-8	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 10.00'
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 checked="" type="checkbox"/> NGVD 1929 <input 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, 2022

<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. 8 NORTH BUFFALO AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	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: RM-3 Vertical Datum: NGVD 1929

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>8.1</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor   | <u>17.4</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>N/A</u>  | <input checked="" 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>13.6</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG)  | <u>7.7</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG)   | <u>.83</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>8.1</u>  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |

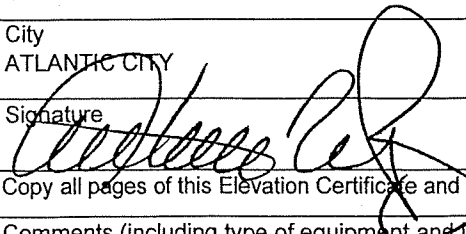
**SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION**

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 ARTHUR W. PONZIO, JR.		License Number 24GS02831400	
Title PROFESSIONAL LAND SURVEYOR			
Company Name ARTHUR W. PONZIO COMPANY & ASSOCIATES, INC.			
Address 400 NORTH DOVER AVENUE			
City ATLANTIC CITY	State New Jersey	ZIP Code 08401	

**Place  
Seal  
Here**

Signature 	Date 07-22-2022	Telephone (609) 344-8194	Ext.
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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)

PROJECT #36334-29-F

DUCT WORK: 11.79'      HEATER: 13.69'      HVAC: 15.78'

SMART VENT MODEL NO.: 1540-510

**ELEVATION CERTIFICATE**

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

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Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 8 NORTH BUFFALO AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	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
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Signature	Date	Telephone
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Comments

Check here if attachments.

**ELEVATION CERTIFICATE**

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

<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. 8 NORTH BUFFALO AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	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 <i>Dino Cavalieri</i>	Title <i>C.F.M.</i>
Community Name <i>Ventnor</i>	Telephone <i>609 823-7987</i>
Signature <i>[Signature]</i>	Date <i>8-8-22</i>

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

Check here if attachments.

# BUILDING PHOTOGRAPHS

## ELEVATION CERTIFICATE

See Instructions for Item A6.

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

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Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 8 NORTH BUFFALO AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	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 07-22-2022

Clear Photo One

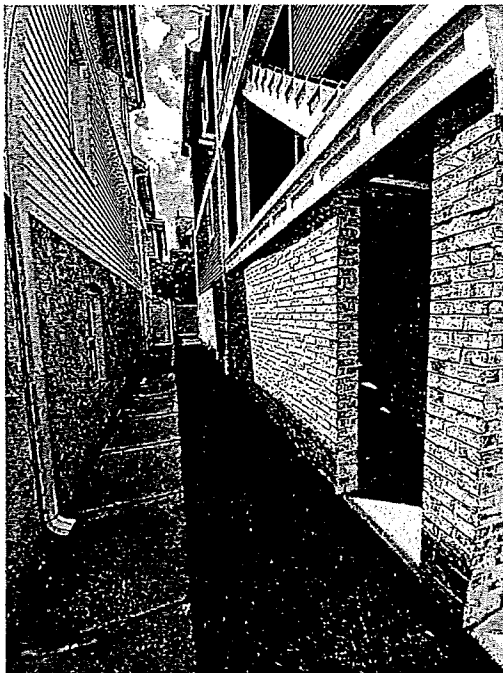


Photo Two

Photo Two Caption LEFT SIDE VIEW 07-22-2022

Clear Photo Two

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

Continuation Page

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

<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. 8 NORTH BUFFALO AVENUE			Policy Number:
City VENTNOR	State New Jersey	ZIP Code 08406	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 Three

Photo Three Caption RIGHT SIDE VIEW 07-22-2022

Clear Photo Three

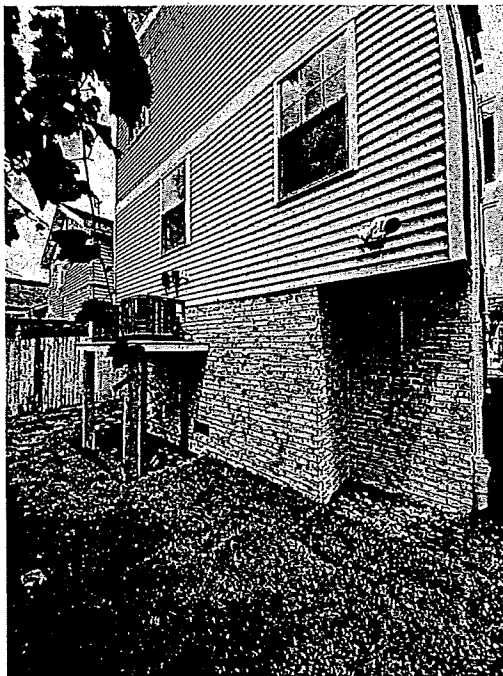


Photo Four

Photo Four Caption REAR VIEW 07-22-2022

Clear Photo Four



*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 02/2021  
This report is subject to renewal 02/2023.

DIVISION: 08 00 00—OPENINGS

SECTION: 08 95 45— VENTS/FOUNDATION FLOOD VENTS

REPORT HOLDER:

**SMART VENT PRODUCTS, INC.**

EVALUATION SUBJECT:

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



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



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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)†

†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

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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>

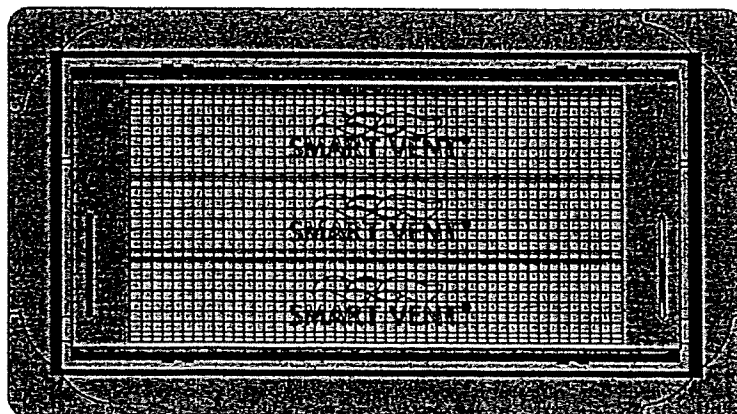


FIGURE 1—SMART VENT: MODEL 1540-510

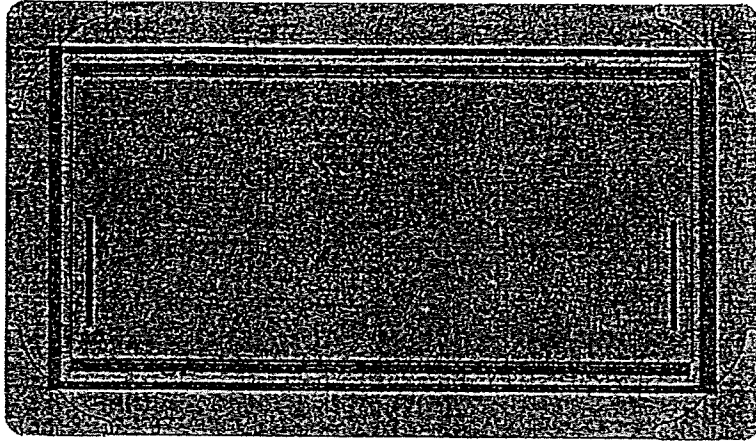


FIGURE 2—SMART VENT MODEL 1540-520

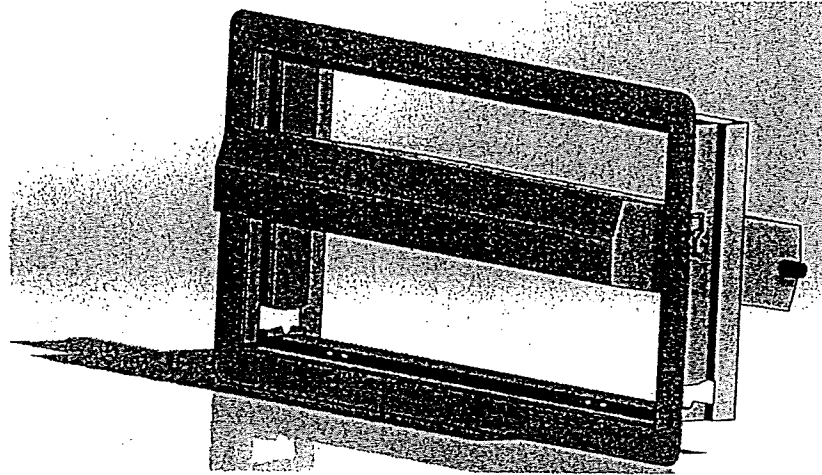


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

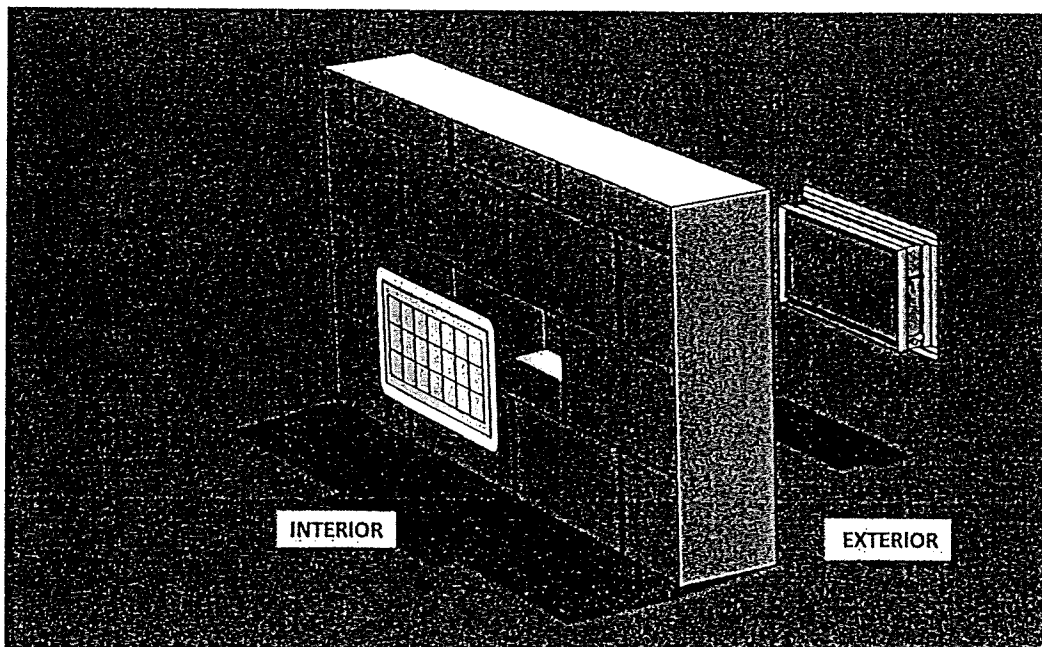


FIGURE 4—FLOOD VENT SEALING KIT

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

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

EVALUATION SUBJECT:

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

1.0 REPORT PURPOSE AND SCOPE

Purpose:

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

Applicable code 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 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 evaluation report and the additional requirements of CBC Chapters 12, 16 and 16A, as applicable.

2.2 CRC:

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the 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 evaluation report.

This supplement expires concurrently with the evaluation report, reissued February 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

## 1.0 REPORT PURPOSE AND SCOPE

## Purpose:

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

## Applicable code editions:

- 2017 Florida Building Code—Building
- 2017 Florida Building Code—Residential

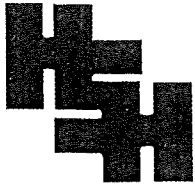
## 2.0 CONCLUSIONS

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the 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 evaluation 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 evaluation report, reissued February 2021.



# HARRY S. HARPER ARCHITECTS INC.

555 NEW JERSEY AVE.  
ABSECON, N.J. 08201  
PHONE: (609) 645-7566

HARRY S. HARPER  
N.J. AI 08900  
N.J.P.P. LI 03222

August 4, 2022

J. Agnesino, Construction Official  
6201 Atlantic Ave.  
Ventnor, NJ 08406

Re: Joffe  
8 N. Buffalo Ave.

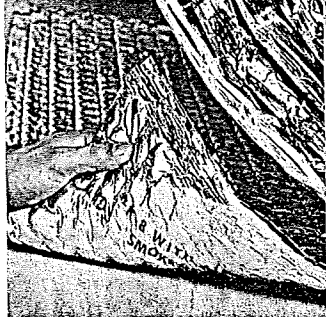
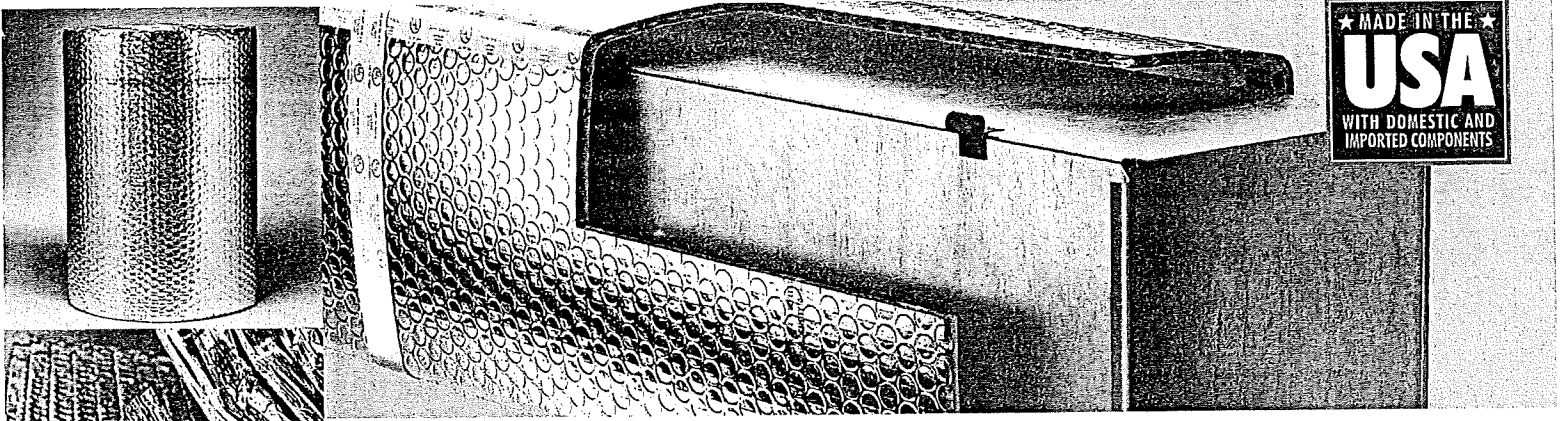
Dear Mr. Agnesino:

In the lower area of the duplex located at the above address, an approximately 6' long return air duct is about 2" below flood. That section of the duct was installed using waterproof wrap manufactured by Reflectix Big Bubble Wrap R-8.0. All joints have been sealed. I have attached the cut sheet for this product.

I hope this will meet with your approval. If you have any questions, please feel free to contact me.

Very truly yours,

Harry S. Harper



REFLECTIX® SUBMITTAL SHEET

# Big Bubble Duct Insulation R-8.0

Reflectix® Duct Insulation is an alternative to other types of fibrous insulation products. Ease of handling and quick installation make Reflectix® the first choice when selecting insulation for round or rectangular ductwork in HVAC systems. The product provides an R-8.0 when installed with a 0.75" air gap between the duct and the insulation, and R-6.0 when installed direct to the duct without a spacer.

TECHNICAL DATA

Temperature Range:	-60° to +180°
Nominal Thickness:	1 inch
Weight:	1.25 oz./sq. ft.
Flame Spread Index (ASTM E 84):	Less than 25
Smoke Developed Index (ASTM E 84):	Less than 50
Fire Rating:	Class A/Class 1
Linear Shrinkage:	None
Reflectance (IR):	96%
Water Vapor Transmission (ASTM E 96):	0.02
Puncture Resistance:	60 lb./in.
Mold and Mildew:	No Growth
Emittance:	0.04
Tensile Strength:	3.7 N/mm
Pliability:	No Cracking
Hot Surface Performance:	250° Passed

*Note:* Not for use in direct contact on surface temperatures that are 180° F or greater.

PRODUCT DESCRIPTION

The Reflectix® R-8.0 Duct Insulation is a nominal 1" thick and consists of an outer reflective surface, two layers of big bubbles in the center, and a second outer reflective surface. The product has printed code certification that runs the length of the roll. The printed information includes R-value, ASTM numbers, manufacturer's name and testing.

BENEFITS

- Itch and fiber-free
- Inhibits condensation
- Non-toxic / non-carcinogenic
- Lightweight and clean
- Lowers heating and cooling costs year-round
- Reflects 96% of radiant energy
- Costs less to install
- Requires less space than fiberglass to achieve R-8 (with 3/4" air space)
- Class A / Class 1 Fire Rating
- Does not promote nesting of birds, insects or rodents
- Resists growth of fungi, mold and mildew
- Does not require protective clothing or respirators to install
- Not affected by moisture or humidity
- Reduces heat loss or gain in a duct system
- ISO 9001:2015 Certified Manufacturing Location

APPLICATIONS

Insulate external round and rectangular heating and air-conditioned duct work.

APPROVED USAGE

Residential, Commercial, Industrial and Institutional HVAC Systems

REFLECTIX® DUCT INSULATION PART NUMBERS AND STOCK SIZES

- HVBB48075 (48" x 75')



Features  
AT A GLANCE:

Reflectix® Duct Insulation may be installed by wrapping rectangular or round ductwork in HVAC applications

Heating costs can be greatly reduced

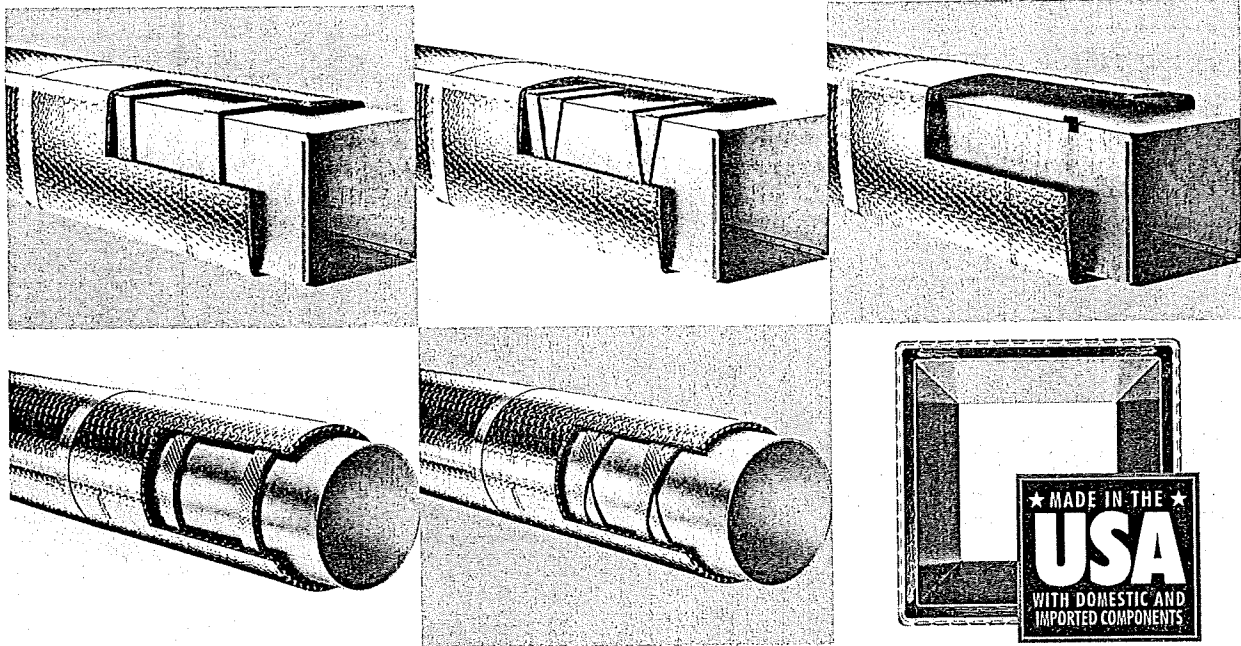
Eliminate unnecessary heat loss/gain and air leakage

Helps to ensure consistent temperatures

WAREHOUSE LOCATIONS:

Markleville, IN · Phoenix, AZ  
Greenville, SC · Needham, MA

Reflectix, Inc.  
#1 School St. (PO Box 108)  
Markleville, IN 46056  
(800) 879-3645  
Fax: (765) 533-2327  
www.reflectixinc.com



### TESTING & CERTIFICATIONS

- Thermal Performance ASTM C335
- Hot Surface Performance ASTM C411
- Flame Spread and Smoke Density ASTM E84
- Fungus Resistance Mil-Std 810B Method 508
- Pliability Test ASTM C1224
- Sound Absorption Test ASTM C423 and ASTM E795
- Sound Transmission Loss ASTM E90 and ASTM E413
- Water Vapor Transmission ASTM E96
- Tensile Strength ASTM D751
- Emittance Testing ASTM C1371
- Bleeding and Delamination ASTM C1668
- Intertek: Test for Surface Burning Characteristics of Building Materials ASTM E84-10b (Taped Joint Detail) Test Report # 100402776SAT-001D Rev 1
- Intertek: Test for Surface Burning Characteristics of Building Materials ASTM E84-10 (Unslit) Test Report # 100054110SAT-007G Rev 1
- R&D Services: Resistance to the Growth of Fungi ASTM C1338-00 Test Report # RD10510
- State of California
- State of California Licensed Insulation Manufacturer
- State of Minnesota: Filed with Minnesota Insulation Standards Program
- R&D Services Emittance Testing
- R&D Services: Physical Properties Sheet Width, Length, Pliability, Water Vapor Permanence and Aged Water Vapor Permanence
- R&D Services: Water Vapor Transmission Test ASTM-E96 (Dessicant Method)

### MANUFACTURER'S SUGGESTED INSTALLATION INSTRUCTIONS

THERE ARE 3 OPTIONS - METHODS 1 & 2 ARE APPLICABLE TO EITHER ROUND OR RECTANGULAR DUCTS:

NOTE: Installation instructions and illustrated drawings are recommendations only, while proper local construction methods are the responsibility of the installer.

#### 1. SPACER PERPENDICULAR TO DUCT DIRECTION METHOD

SPACER: HVSPW02025 - REFLECTIX® SPIRAL PIPE WRAP 2" x 25'

- Refer to the (2) left hand diagrams on page 2. Make sure all sheet metal joints, seams and penetrations are sealed.
- Double wrap and secure spacer material to the duct at 24" to 36" intervals. Use a UL181 Tape with Acrylic Adhesive to fasten the spacer in place.
- Verify the circumference of the duct at the mid-point of a spacer strip. Cut the Reflectix® product to this length plus 1".
- Wrap the product around the duct and securely tape the linear and circumference seams (overlapping 1" - 2") with a UL181 Tape with Acrylic Adhesive (goal is an air-tight, snug seam seal). Do not leave any exposed duct or space where air can enter between the duct and the Reflectix®.

## 2. SPACER WRAPPED IN CANDY CANE FASHION METHOD

**SPACER:** HVSPW02025 - REFLECTIX® SPIRAL PIPE WRAP 2" x 25'

- Refer to the middle two diagrams on page 2. Make sure all sheet metal joints, seams and penetrations are sealed.
- Double wrap and secure spacer material to the duct in a candy cane fashion. First, proceed down the duct in one direction then reverse direction and crisscross (overlap) the spacer in the other direction. Use a UL181 Tape with Acrylic Adhesive to fasten the spacer in place.
- Verify the circumference of the duct with the spacer strips in place. Cut the Reflectix® product to this length plus 1".
- Wrap the product around the duct and securely tape the linear and circumference seams (overlapping 1" - 2") with a UL181 Tape with Acrylic Adhesive (goal is an air-tight, snug seam seal). Do not leave any exposed duct or space where air can enter between the duct and the Reflectix®.

## 3. HV SPACERS AFFIXED TO CORNERS METHOD (RECTANGULAR DUCTS ONLY)

**SPACER:** HVSPACER - REFLECTIX® HARD PLASTIC CORNER SPACER

- Refer to the (2) right hand diagrams on page 2. Make sure all sheet metal joints, seams and penetrations are sealed.
- Make sure the duct is free from dust and dirt by wiping it down with a shop rag.
- Install the HV Spacers to all 4 corners of the duct. Place the spacers every 36" apart. Verify the circumference of the duct over the top of the spacers.
- Cut the Reflectix® product to this length plus 1". Wrap the Reflectix® over the spacers.
- Fasten the Reflectix® by either taping the seam with a UL181 Tape with Acrylic Adhesive, or plier stapling the two edges together (goal is an air-tight, snug seam seal).
- If the duct is supported with saddle clamps, make sure to install a spacer on the two bottom edges of the duct directly between the clamp and the duct. If the clamps are installed around the duct (such as plumbers tape), make sure that the seam is taped to prevent air movement.

PLEASE NOTE REGARDING HANGERS: Strap Hanger: Wrap Reflectix® with the seam at the hanger. Tape seam tightly around hanger.

Saddle Hanger: Make sure there is a spacer below the hanger between the insulation and the duct to prevent the insulation from touching the duct.

NOTE: Not to be used as duct liner.