U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

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

# 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
Eric Frieman

Policy Number:

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
20 N. Exeter Avenue

Company NAIC Number:

| City | State | ZIP Code |
|---|---|---|
| Margate City | New Jersey | 08402 |

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Block 207.01, Lot 43

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

A5. Latitude/Longitude: Lat. N 39°19'53" Long. W 74°29'54.2" 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) 988.00 sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 5

c) Total net area of flood openings in A8.b 1000.00 sq in

d) Engineered flood openings? ☒ Yes ☐ No

A9. For a building with an attached garage:

a) Square footage of attached garage N/A sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade N/A

c) Total net area of flood openings in A9.b 0.00 sq in

d) Engineered flood openings? ☐ Yes ☒ No

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

| B1. NFIP Community Name & Community Number | B2. County Name | B3. State |
|---|---|---|
| Margate City 345304 | Atlantic | New Jersey |

| B4. Map/Panel Number | B5. Suffix | B6. FIRM Index Date | B7. FIRM Panel Effective/ Revised Date | B8. Flood Zone(s) | B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) |
|---|---|---|---|---|---|
| 34001C 0453 | F | 08-28-2018 | 08-28-2018 | AE | 9.00 |

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

# ELEVATION CERTIFICATE

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|---|---|---|---|
| Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.<br>20 N. Exeter Avenue | | | Policy Number: |
| City<br>Margate City | State<br>New Jersey | ZIP Code<br>08402 | 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: Local BM 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) | 6.9 | ☒ feet | ☐ meters |
| b) Top of the next higher floor | 16.6 | ☒ 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) | 16.6 | ☒ feet | ☐ meters |
| f) Lowest adjacent (finished) grade next to building (LAG) | 6.7 | ☒ feet | ☐ meters |
| g) Highest adjacent (finished) grade next to building (HAG) | 6.9 | ☒ feet | ☐ meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support | 6.7 | ☒ feet | ☐ meters |

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

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No ☒ Check here if attachments.

| Certifier's Name<br>James R. Boney, PLS | License Number<br>24GS03126400 | | Place Seal Here |
|---|---|---|---|
| Title<br>Professional Land Surveyor | | | |
| Company Name<br>James R. Boney & Associates | | | |
| Address<br>13 Stone Mill Court | | | |
| City<br>Egg Harbor Twp | State<br>New Jersey | ZIP Code<br>08234 | |
| Signature | Date<br>12-30-2022 | Telephone<br>(609) 788-8013 | 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)
Three story frame house with full-story foundation walls. Mechanicals are inside.

# ELEVATION CERTIFICATE

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

| 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.<br>20 N. Exeter Avenue | | | Policy Number: |
| City<br>Margate City | State<br>New Jersey | ZIP Code<br>08402 | 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. 1660-0008
Expiration Date: November 30, 2022

| IMPORTANT: In these spaces, copy the corresponding information from Section A. | | | FOR INSURANCE COMPANY USE |
|---|---|---|---|
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| City<br>Margate City | State<br>New Jersey | ZIP Code<br>08402 | 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 |
|---|---|
| J. Nicholas Colarulo | CFM |
| **Community Name** | **Telephone** |
| Margate | 609 822 1934 |
| **Signature** | **Date** |
| | 1/10/23 |

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, 2022

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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

Clear Photo One


Photo Two

Photo Two Caption Rear

Clear Photo Two

# ELEVATION CERTIFICATE

## BUILDING PHOTOGRAPHS
Continuation Page

OMB No. 1660-0008
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|---|---|---|---|
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| City<br>Margate City | State<br>New Jersey | ZIP Code<br>08402 | 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 Smart Vent (Typ)

Clear Photo Three

Photo Four

Photo Four Caption

Clear Photo Four

ICC EVALUATION SERVICE

*Most Widely Accepted and Trusted*

# ICC-ES Evaluation Report

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

**ESR-2074**

Reissued 02/2021
Revised 04/2021
This report is subject to renewal 02/2023.

**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

ICC ES ICC ES PMG ICC ES LISTED

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

A Subsidiary of ICC INTERNATIONAL CODE COUNCIL

# ICC-ES Evaluation Report

**ESR-2074**

*Reissued February 2021*
*Revised April 2021*
*This report is subject to renewal February 2023.*

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:**

- 2021, 2018, 2015, 2012, 2009 and 2006 *International Building Code®* (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code®* (IRC)
- 2021, 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 $mm^2$) 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 $mm^2$) of net free area to supply natural ventilation. Other FVs described 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 feet (18.6 $m^2$) 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 $m^2$) 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® 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® 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

**6.1** Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised February 2021).

**6.2** Test report on air infiltration in accordance with ASTM E283.

## 7.0 IDENTIFICATION

**7.1** The Smart VENT® models and the Flood Vent Sealing Kit described 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**
**info@smartvent.com**

**TABLE 1—MODEL SIZES**

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

For **SI:** 1 inch = 25.4 mm; 1 square foot = $m^2$

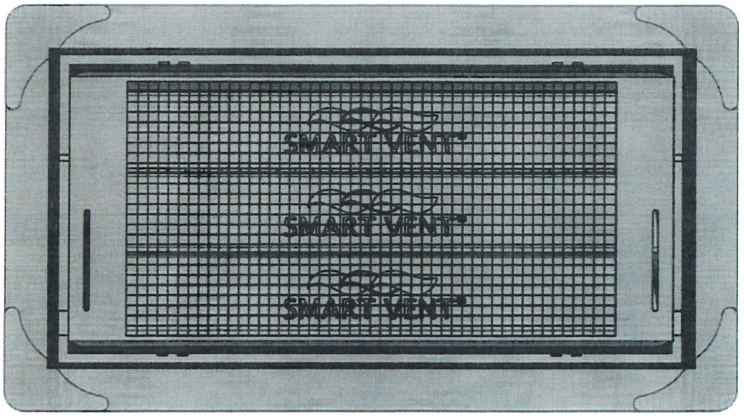


**FIGURE 1—SMART VENT: MODEL 1540-510**

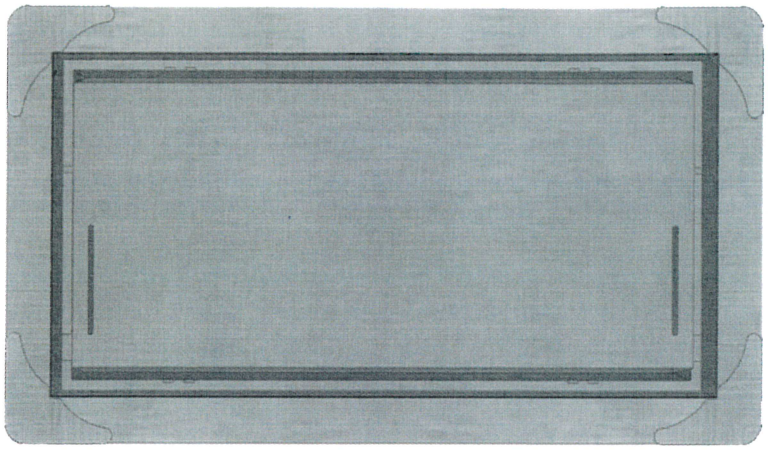

**FIGURE 2—SMART VENT MODEL 1540-520**

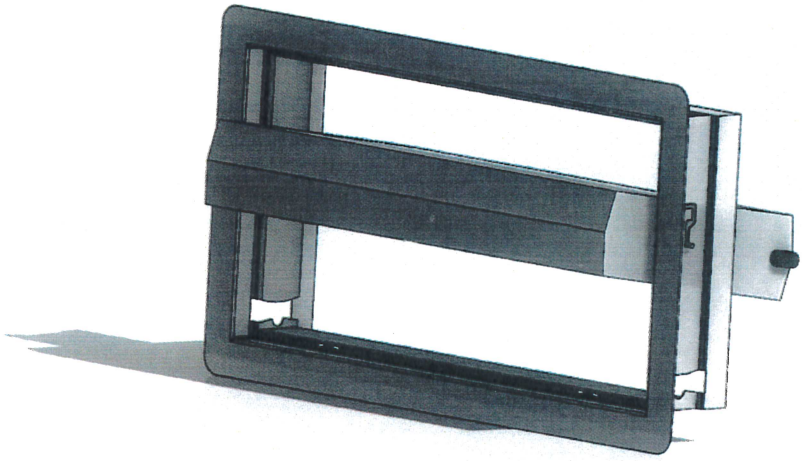

**FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN**

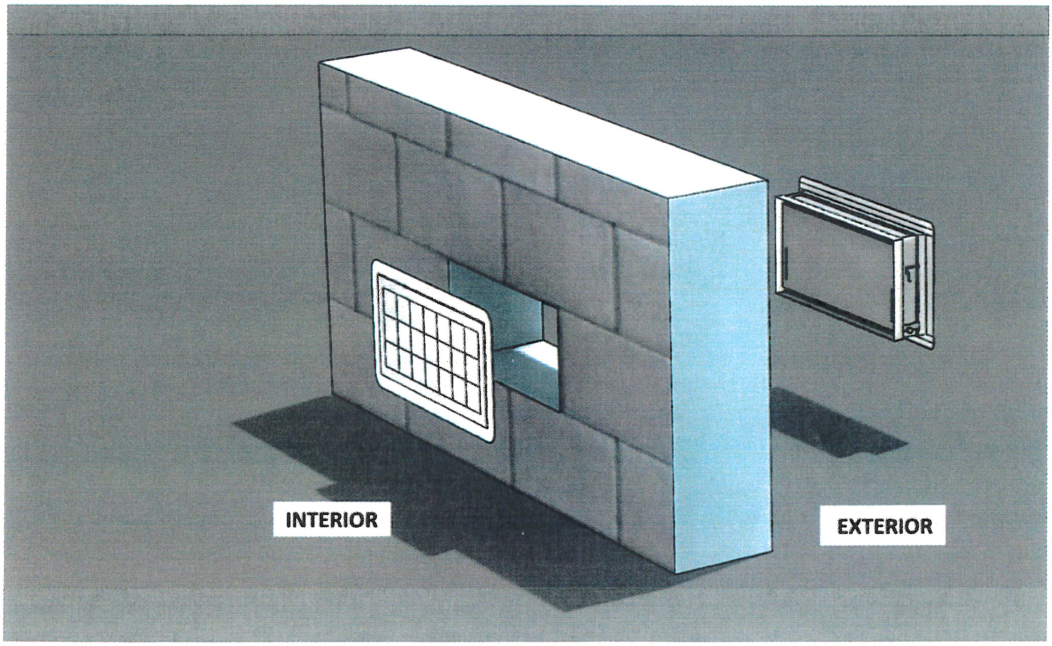


**FIGURE 4—FLOOD VENT SEALING KIT**