

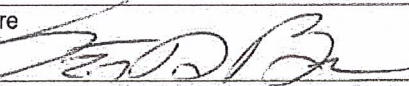
ELEVATION CERTIFICATE

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 Harbaugh Developers				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 241 107th Street				Company NAIC Number:	
City Stone Harbor		State New Jersey		ZIP Code 08247	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Block 107.03 Lots 70, 72 & 74					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential					
A5. Latitude/Longitude: Lat. N 39°02'47.14" Long. W 074°45'57.69" 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 8					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) 1,958 sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 10					
c) Total net area of flood openings in A8.b 2,000 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 0 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? <input type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Borough of Stone Harbor #345323			B2. County Name Cape May		B3. State New Jersey
B4. Map/Panel Number 345323/0001	B5. Suffix C	B6. FIRM Index Date 12/31/1970	B7. FIRM Panel Effective/ Revised Date 02/02/1983	B8. Flood Zone(s) A7	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 10.0
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 CERTIFICATEOMB 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. 241 107th Street			Policy Number:	
City Stone Harbor	State New Jersey	ZIP Code 08247	Company NAIC Number	
SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)				
C1. Building elevations are based on: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input checked="" type="checkbox"/> 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: <u>NGS Disk SH-3</u> Vertical Datum: <u>El 9.73 NAVD 1988</u>				
Indicate elevation datum used for the elevations in items a) through h) below. <input checked="" type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> 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. 58</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters		
b) Top of the next higher floor	<u>12. 38</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 (Describe type of equipment and location in Comments)	<u>12. 0</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters		
f) Lowest adjacent (finished) grade next to building (LAG)	<u>7. 5</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. 7</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>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.</i>				
Were latitude and longitude in Section A provided by a licensed land surveyor? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Check here if attachments.				
Certifier's Name Scott D. Brown		License Number NJ Lic. No. 38250		Place Seal Here
Title Professional Engineer and Land Surveyor				
Company Name Dante Guzzi Engineering Associates				
Address 418 Stokes Road				
City Medford	State New Jersey	ZIP Code 08055		
Signature 	Date 05/26/2017	Telephone (609) 654-4440		
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) A8.b) Smart Vents Model #1540-510 @200 sq in/each. There are 2 additional Smart Vents not yet installed at time of survey. C2.a) Crawl space floor. C2.b) Finished floor living space. C2.e) HVAC. The property is located in PRELIMINARY FIRM #34009C0242F (01/30/2015) Zone AE (el=8.0 NAVD88). To convert the elevations above to NAVD88 subtract 1.3 ft.				
DGEA File #C-16-194				

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**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, 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. 241 107th Street			Policy Number:
City Stone Harbor	State New Jersey	ZIP Code 08247	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 <u>16-12073</u>	G5. Date Permit Issued <u>11/15/16</u>	G6. Date Certificate of Compliance/Occupancy Issued <u>6/7/17</u>
G7. This permit has been issued for: <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Substantial Improvement		
G8. Elevation of as-built lowest floor (including basement) of the building:	<u>12</u> <u>38</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters Datum <u>NGVD 1929</u>
G9. BFE or (in Zone AO) depth of flooding at the building site:	<u>10</u> <u>0</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters Datum <u>NGVD 1929</u>
G10. Community's design flood elevation:	<u>11</u> <u>0</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters Datum <u>NAVD 1988</u>

Local Official's Name <u>MICHAEL KOOCHEMBERE</u>	Title <u>CONSTRUCTION OFFICIAL</u>
Community Name <u>BOROUGH OF STONE HARBOR</u>	Telephone <u>609.368.6814</u>
Signature 	Date <u>6/7/17</u>
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, 2018

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241 107th Street

Policy Number:

City
Stone HarborState
New JerseyZIP Code
08247

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 (05/25/2017)



Photo Two

Photo Two Caption REAR VIEW (05/25/2017)

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008
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ELEVATION CERTIFICATE

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City Stone Harbor	State New Jersey	ZIP Code 08247	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.

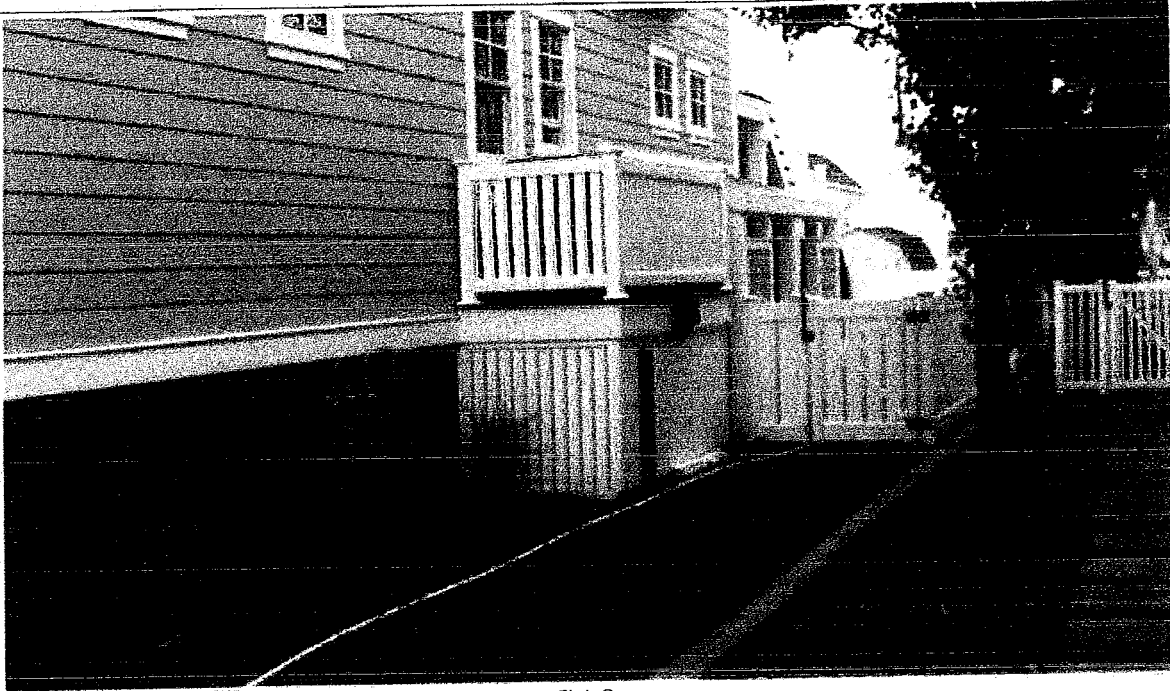


Photo One

Photo One Caption RIGHT SIDE VIEW (05/25/2017)

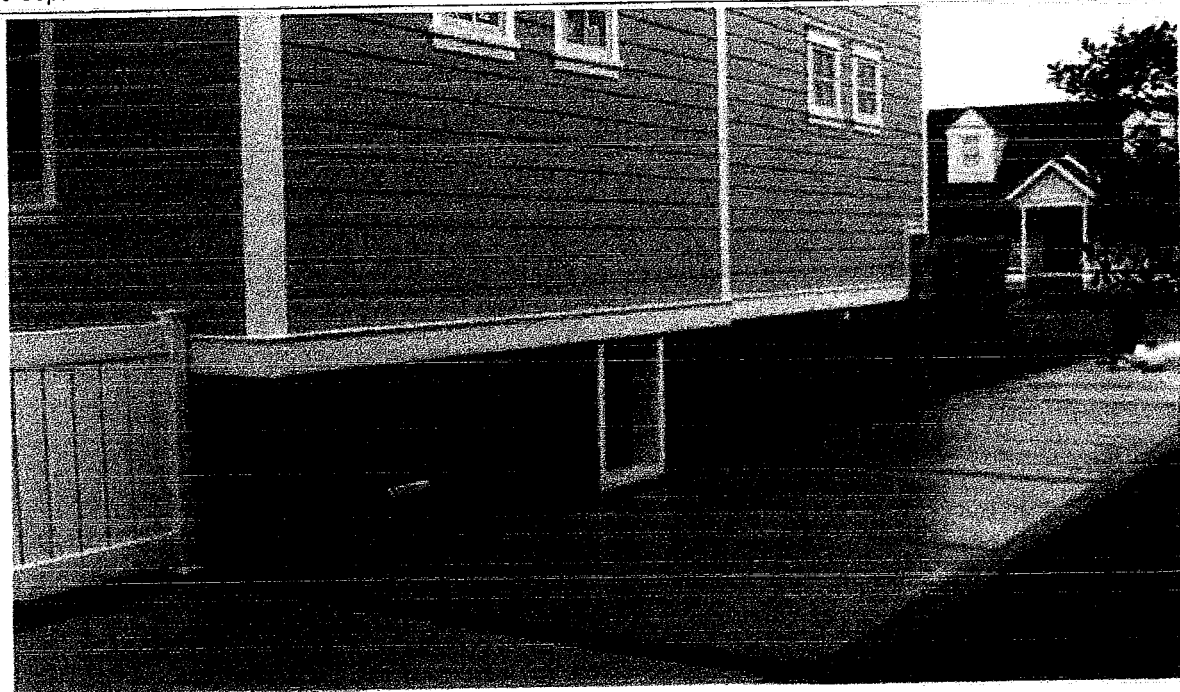


Photo Two

Photo Two Caption LEFT SIDE VIEW (05/25/2017)



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ESR-2074

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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**



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

Reissued February 2015

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DIVISION: 08 00 00—OPENINGS

Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:**SMARTVENT PRODUCTS, INC.**

430 ANDBRO DRIVE, UNIT 1

PITMAN, NEW JERSEY 08071

(877) 441-8368

www.smartvent.cominfo@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 mm²) of net free area to supply natural ventilation. The SmartVENT® Stacking Model #1540-511 consists of two Model #1540-510 units in one assembly, and provides 102 square inches (65 806 mm²) of net free area to supply natural ventilation. Other FVs recognized in this report do not offer natural ventilation.

4.0 DESIGN AND INSTALLATION

SmartVENT® and FloodVENT® are designed to be installed into walls or overhead doors of existing or new construction from the exterior side. Installation of the vents must be in accordance with the manufacturer's instructions, the applicable code and this report. 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 m²) of enclosed area, except that the SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 must be installed with a minimum of one FV for every 400 square feet (37.2 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305.4 mm) above the higher of the final

*Revised July 2015

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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 ³ / ₄ " X 7 ³ / ₄ "	200
SmartVENT®	1540-510	15 ³ / ₄ " X 7 ³ / ₄ "	200
FloodVENT® Overhead Door	1540-524	15 ³ / ₄ " X 7 ³ / ₄ "	200
SmartVENT® Overhead Door	1540-514	15 ³ / ₄ " X 7 ³ / ₄ "	200
Wood Wall FloodVENT®	1540-570	14" X 8 ³ / ₄ "	200
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 8 ³ / ₄ "	200
SmartVENT® Stacker	1540-511	16" X 16"	400
FloodVent® Stacker	1540-521	16" X 16"	400

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

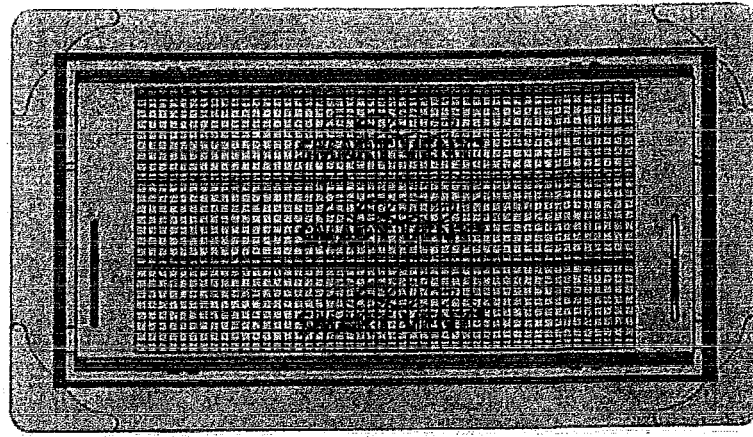


FIGURE 1—SMART VENT: MODEL 1540-510

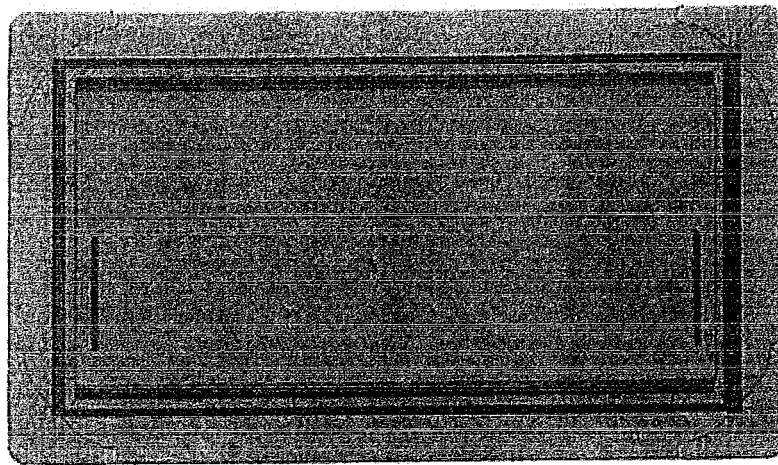


FIGURE 2—SMART VENT MODEL 1540-520

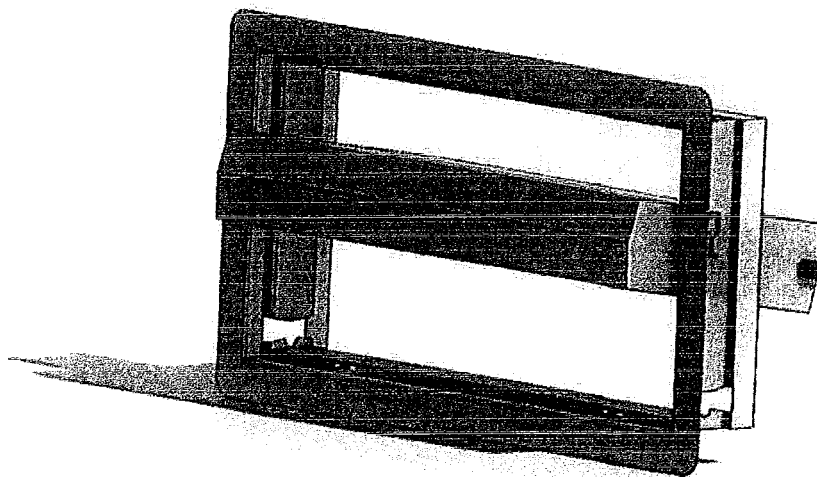


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN