



**FEMA**

*NATIONAL FLOOD INSURANCE PROGRAM*

**ELEVATION CERTIFICATE**

**AND**

**INSTRUCTIONS**

**2019 EDITION**

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

## ELEVATION CERTIFICATE AND INSTRUCTIONS

### Paperwork Reduction Act Notice

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

### Privacy Act Statement

**Authority:** Title 44 CFR § 61.7 and 61.8.

**Principal Purpose(s):** This information is being collected for the primary purpose of estimating the risk premium rates necessary to provide flood insurance for new or substantially improved structures in designated Special Flood Hazard Areas.

**Routine Use(s):** The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/FEMA-003 – National Flood Insurance Program Files System or Records Notice 73 Fed. Reg. 77747 (December 19, 2008); DHS/FEMA/NFIP/LOMA-1 – National Flood Insurance Program (NFIP) Letter of Map Amendment (LOMA) System of Records Notice 71 Fed. Reg. 7990 (February 15, 2006); and upon written request, written consent, by agreement, or as required by law.

**Disclosure:** The disclosure of information on this form is voluntary; however, failure to provide the information requested may result in the inability to obtain flood insurance through the National Flood Insurance Program or the applicant may be subject to higher premium rates for flood insurance. Information will only be released as permitted by law.

### Purpose of the Elevation Certificate

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

The Elevation Certificate is required in order to properly rate Post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), located in flood insurance Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO. The Elevation Certificate is not required for Pre-FIRM buildings unless the building is being rated under the optional Post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent grade elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request. A LOMA or LOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 package, whichever is appropriate.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

Additional guidance can be found in FEMA Publication 467-1, Floodplain Management Bulletin: Elevation Certificate, available on FEMA's website at <https://www.fema.gov/media-library/assets/documents/3539?id=1727>.

# 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 Joanne V. & Robert E. Moss				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 154 Champlain Road				Company NAIC Number:	
City Chatham	State Massachusetts	ZIP Code 02633			
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Parcel Id: 12A-5-9; Deed Bk 32744 Pg 145; Plan Bk 2 Pg 89					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Residential</u>					
A5. Latitude/Longitude: Lat. <u>41°40'4.47"N</u> Long. <u>69°58'19.09"W</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>2599.00</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>13</u>					
c) Total net area of flood openings in A8.b <u>1797.00</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>675.00</u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>0</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 25004 Chatham, Town of			B2. County Name Barnstable County		B3. State Massachusetts
B4. Map/Panel Number 25001C0636	B5. Suffix J	B6. FIRM Index Date 07-16-2014	B7. FIRM Panel Effective/ Revised Date 07-16-2014	B8. Flood Zone(s) 13	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) AE
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 type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input checked="" 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, 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. 154 Champlain Road			Policy Number:
City Chatham	State Massachusetts	ZIP Code 02633	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: OPUS, See attached      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) _____   | 10.0 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor _____   | 14.1 | <input checked="" 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) _____  | 13.4 | <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) _____ | 14.3 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG) _____  | 9.9  | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG) _____   | 20.3 | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support _____                                  | 12.2 | <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 J Thaddeus Eldredge	License Number 46471	
Title Surveyor		
Company Name East-SouthEast LLC		
Address 1038 Main Street		
City Chatham	State Massachusetts	

Signature 	Date 09-03-2020	Telephone (508) 945-3965	Ext. 19
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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)

# 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. 154 Champlain Road			Policy Number:
City Chatham	State Massachusetts	ZIP Code 02633	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

<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. 154 Champlain Road			Policy Number:
City Chatham	State Massachusetts	ZIP Code 02633	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
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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.

# BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2022

## ELEVATION CERTIFICATE

<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. 154 Champlain Road			Policy Number:
City Chatham	State Massachusetts	ZIP Code 02633	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 South Side, Front View

Clear Photo One



Photo Two

Photo Two Caption South Side Front View 2

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. 154 Champlain Road			Policy Number:
City Chatham	State Massachusetts	ZIP Code 02633	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 South Side, Front View 3

Clear Photo Three



Photo Four

Photo Four Caption East Side, Right View

Clear Photo Four



154 Champlain Road

Chatham, Massachusetts 02633

Additional Comments

A5. The latitude and longitude were obtained from Google Earth and verified with GPS locations.

C2.e) The lowest machinery are 2 HVAC Units located at elevation 14.3, hot water heater at elevation 14.9 & electric outlets are located at elevation 15



154 Champlain Road

Chatham, Massachusetts 02633

Additional Comments

Building Photographs



Photo Five Caption North Side, Rear View



Photo Six Caption West Side, Left View

154 Champlain Road

Chatham, Massachusetts 02633

Additional Comments



Photo Seven Caption West Side, Left View

154 Champlain Road

Chatham, Massachusetts 02633

Additional Comments



West Side, Flood Openings



East Side, Flood Openings

# National Flood Hazard Layer FIRMette



69°58'38"W 41°40'18"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone 1)
- Future Conditions 1% Annual Chance Flood Hazard (Zone X)
- Area with Reduced Flood Risk due to Levee. See Notes. (Zone X)
- Area with Flood Risk due to Levee (Zone D)

**OTHER AREAS**

- NO SCREEN
- Area of Minimal Flood Hazard (Zone X)
- Effective LOMRs
- Area of Undetermined Flood Hazard (Zone X)

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**

- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/3/2020 at 1:30 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

9198196t.19o.txt created: 2019-07-15 22:26 UTC downloaded: 2020-09-08 14:04 UTC

NGS OPUS SOLUTION REPORT

All computed coordinate accuracies are listed as peak-to-peak values.  
For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: spledeus@c4.net DATE: July 15, 2019  
RINEX FILE: 9198196t.19o TIME: 22:24:59 UTC

SOFTWARE: page5 1603.24 master53.pl 160321 START: 2019/07/15  
19:05:00  
EPHEMERIS: igu20621.eph [ultra-rapid] STOP: 2019/07/15  
21:53:00  
NAV FILE: brdc1960.19n OBS USED: 5733 / 6156 :  
93%  
ANT NAME: CHCX91B NONE # FIXED AMB: 38 / 39 :  
97%  
ARP HEIGHT: 2.00 OVERALL RMS: 0.014 (m)

REF FRAME: NAD\_83(2011) (EPOCH:2010.0000) IGS08  
(EPOCH:2019.5366)

X:	1634396.486 (m)	0.006 (m)	1634395.565 (m)
0.006 (m)			
Y:	-4482984.746 (m)	0.007 (m)	-4482983.308 (m)
0.007 (m)			
Z:	4218058.415 (m)	0.016 (m)	4218058.421 (m)
0.016 (m)			
LAT:	41 40 2.42479	0.016 (m)	41 40 2.46083
0.016 (m)			
E LON:	290 1 50.62886	0.008 (m)	290 1 50.61277
0.008 (m)			
W LON:	69 58 9.37114	0.008 (m)	69 58 9.38723
0.008 (m)			
EL HGT:	-23.597 (m)	0.006 (m)	-24.838 (m)
0.006 (m)			
ORTHO HGT:	4.499 (m)	0.021 (m)	[NAVD88 (Computed using GEOID12B)]

	UTM COORDINATES	STATE PLANE COORDINATES
	UTM (Zone 19)	SPC (2001 MA M)
Northing (Y) [meters]	4613296.225	825265.114
Easting (X) [meters]	419310.203	327474.674
Convergence [degrees]	-0.64441111	1.02823611
Point Scale	0.99968012	1.00000758
Combined Factor	0.99968382	1.00001128

US NATIONAL GRID DESIGNATOR: 19TDG1931013296(NAD 83)

PID	DESIGNATION	BASE STATIONS USED	LATITUDE	LONGITUDE
	DISTANCE (m)			

9198196t.19o.txt created: 2019-07-15 22:26 UTC downloaded: 2020-09-08 14:04 UTC

DO9467	MADA	DARTMOUTH CORS ARP	N413822.848	W0710141.393	88256.7
DO9475	MATU	TRURO CORS ARP	N415851.708	W0700236.891	35384.2
DO9471	MAPL	PLYMOUTH CORS ARP	N415619.314	W0703918.243	64471.8

NEAREST NGS PUBLISHED CONTROL POINT					
UT0650	CROWELL		N414000.588	W0695806.513	87.0

BASE STATION INFORMATION

STATION NAME: mada a 1 (DARTMOUTH; Dartmouth, Massachusetts USA)  
MONUMENT: NO DOMES NUMBER

XYZ	1551941.5085	-4514373.7005	4215782.8757	MON @ 2005.0000 (M)
XYZ	-0.0153	-0.0014	0.0041	VEL (M/YR)
NEU	0.0000	0.0000	0.0000	MON TO ARP (M)
NEU	0.0003	-0.0007	0.1267	ARP TO L1 PHASE CENTER (M)
NEU	0.0001	-0.0007	0.1352	ARP TO L2 PHASE CENTER (M)
XYZ	-0.2224	-0.0203	0.0596	VEL TIMES 14.5351 YRS
XYZ	0.0000	0.0000	0.0000	MON TO ARP
XYZ	0.0301	-0.0896	0.0844	ARP TO L1 PHASE CENTER
XYZ	1551941.3162	-4514373.8105	4215783.0197	L1 PHS CEN @ 2019.5366
XYZ	0.0000	-0.0000	-0.0000	+ XYZ ADJUSTMENTS
XYZ	1551941.3162	-4514373.8105	4215783.0197	NEW L1 PHS CEN @ 2019.5366
XYZ	1551941.2861	-4514373.7209	4215782.9353	NEW ARP @ 2019.5366
XYZ	1551941.2861	-4514373.7209	4215782.9353	NEW MON @ 2019.5366
LLH	41 38 22.88392	288 58 18.58887	5.2864	NEW L1 PHS CEN @ 2019.5366
LLH	41 38 22.88391	288 58 18.58891	5.1597	NEW ARP @ 2019.5366
LLH	41 38 22.88391	288 58 18.58891	5.1597	NEW MON @ 2019.5366

STATION NAME: matu a 1 (TRURO; Truro, Massachusetts USA)  
MONUMENT: NO DOMES NUMBER

XYZ	1620659.6387	-4463286.4008	4244046.6291	MON @ 2005.0000 (M)
XYZ	-0.0154	-0.0014	0.0043	VEL (M/YR)
NEU	0.0000	0.0000	0.0000	MON TO ARP (M)
NEU	0.0003	-0.0007	0.1267	ARP TO L1 PHASE CENTER (M)
NEU	0.0001	-0.0007	0.1352	ARP TO L2 PHASE CENTER (M)
XYZ	-0.2238	-0.0203	0.0625	VEL TIMES 14.5351 YRS
XYZ	0.0000	0.0000	0.0000	MON TO ARP
XYZ	0.0314	-0.0886	0.0850	ARP TO L1 PHASE CENTER
XYZ	1620659.4463	-4463286.5098	4244046.7766	L1 PHS CEN @ 2019.5366
XYZ	0.0000	0.0000	0.0000	+ XYZ ADJUSTMENTS
XYZ	1620659.4463	-4463286.5098	4244046.7766	NEW L1 PHS CEN @ 2019.5366
XYZ	1620659.4149	-4463286.4211	4244046.6916	NEW ARP @ 2019.5366
XYZ	1620659.4149	-4463286.4211	4244046.6916	NEW MON @ 2019.5366
LLH	41 58 51.74452	289 57 23.09224	12.2364	NEW L1 PHS CEN @ 2019.5366
LLH	41 58 51.74451	289 57 23.09227	12.1096	NEW ARP @ 2019.5366
LLH	41 58 51.74451	289 57 23.09227	12.1096	NEW MON @ 2019.5366

STATION NAME: mapl a 1 (PLYMOUTH; Plymouth, Massachusetts USA)  
MONUMENT: NO DOMES NUMBER

XYZ	1573974.9855	-4483293.4361	4240549.1893	MON @ 2005.0000 (M)
XYZ	-0.0154	-0.0014	0.0042	VEL (M/YR)
NEU	0.0000	0.0000	0.0000	MON TO ARP (M)

9198196t.19o.txt created: 2019-07-15 22:26 UTC downloaded: 2020-09-08 14:04 UTC

NEU	0.0003	-0.0007	0.1267	ARP TO L1 PHASE CENTER (M)
NEU	0.0001	-0.0007	0.1352	ARP TO L2 PHASE CENTER (M)
XYZ	-0.2238	-0.0203	0.0610	VEL TIMES 14.5352 YRS
XYZ	0.0000	0.0000	0.0000	MON TO ARP
XYZ	0.0305	-0.0890	0.0849	ARP TO L1 PHASE CENTER
XYZ	1573974.7922	-4483293.5455	4240549.3353	L1 PHS CEN @ 2019.5366
XYZ	0.0000	0.0000	0.0000	+ XYZ ADJUSTMENTS
XYZ	1573974.7922	-4483293.5454	4240549.3353	NEW L1 PHS CEN @ 2019.5366
XYZ	1573974.7617	-4483293.4564	4240549.2503	NEW ARP @ 2019.5366
XYZ	1573974.7617	-4483293.4564	4240549.2503	NEW MON @ 2019.5366
LLH	41 56 19.35079	289 20 41.73943	10.6540	NEW L1 PHS CEN @ 2019.5366
LLH	41 56 19.35078	289 20 41.73946	10.5273	NEW ARP @ 2019.5366
LLH	41 56 19.35078	289 20 41.73946	10.5273	NEW MON @ 2019.5366

#### REMOTE STATION INFORMATION

STATION NAME: 9198 1

MONUMENT: NO DOMES NUMBER

XYZ	1634395.4875	-4482983.5668	4218058.4045	MON @ 2019.5364 (M)
NEU	-0.0014	-0.0000	2.0000	MON TO ARP (M)
NEU	0.0014	0.0000	0.0853	ARP TO L1 PHASE CENTER (M)
NEU	0.0001	-0.0015	0.0967	ARP TO L2 PHASE CENTER (M)
XYZ	0.5120	-1.4046	1.3286	MON TO ARP
XYZ	0.0216	-0.0590	0.0578	ARP TO L1 PHASE CENTER
XYZ	1634396.0211	-4482985.0304	4218059.7909	L1 PHS CEN @ 2019.5366

BASELINE NAME: mada 9198

XYZ	0.0812	0.2603	0.0159	+ XYZ ADJUSTMENTS
XYZ	1634396.1023	-4482984.7701	4218059.8068	NEW L1 PHS CEN @ 2019.5366
XYZ	1634396.0807	-4482984.7111	4218059.7490	NEW ARP @ 2019.5366
XYZ	1634395.5687	-4482983.3065	4218058.4204	NEW MON @ 2019.5366
LLH	41 40 2.46082	290 1 50.61294	-22.7527	NEW L1 PHS CEN @ 2019.5366
LLH	41 40 2.46077	290 1 50.61294	-22.8381	NEW ARP @ 2019.5366
LLH	41 40 2.46082	290 1 50.61294	-24.8381	NEW MON @ 2019.5366

BASELINE NAME: matu 9198

XYZ	0.0772	0.2615	0.0240	+ XYZ ADJUSTMENTS
XYZ	1634396.0983	-4482984.7689	4218059.8149	NEW L1 PHS CEN @ 2019.5366
XYZ	1634396.0768	-4482984.7099	4218059.7571	NEW ARP @ 2019.5366
XYZ	1634395.5647	-4482983.3053	4218058.4285	NEW MON @ 2019.5366
LLH	41 40 2.46107	290 1 50.61279	-22.7492	NEW L1 PHS CEN @ 2019.5366
LLH	41 40 2.46102	290 1 50.61279	-22.8346	NEW ARP @ 2019.5366
LLH	41 40 2.46107	290 1 50.61279	-24.8346	NEW MON @ 2019.5366

BASELINE NAME: mapl 9198

XYZ	0.0749	0.2547	0.0082	+ XYZ ADJUSTMENTS
XYZ	1634396.0960	-4482984.7757	4218059.7991	NEW L1 PHS CEN @ 2019.5366
XYZ	1634396.0745	-4482984.7167	4218059.7413	NEW ARP @ 2019.5366
XYZ	1634395.5624	-4482983.3121	4218058.4127	NEW MON @ 2019.5366
LLH	41 40 2.46056	290 1 50.61260	-22.7555	NEW L1 PHS CEN @ 2019.5366
LLH	41 40 2.46052	290 1 50.61260	-22.8409	NEW ARP @ 2019.5366
LLH	41 40 2.46056	290 1 50.61260	-24.8409	NEW MON @ 2019.5366

G-FILES



Axx2019 715 19 715  
 B2019 71519 4 19 7152152 1 page5 v1603.24IGS 126 1 2 27NGS 2019  
 715IFDDPX  
 IIGS08\_1930 IGS 20170101  
 C00090001 -824542826 14 -313904144 25 -22754852 23  
 X1969A9198X1969AMADA  
 D 1 2 -6706261 1 3 8127965 2 3 -8880446

Axx2019 715 19 715  
 B2019 71519 4 19 7152152 1 page5 v1603.24IGS 126 1 2 27NGS 2019  
 715IFDDPX  
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 X1969A9198X1969AMATU  
 D 1 2 -9183273 1 3 6719611 2 3 -7980008

Axx2019 715 19 715  
 B2019 71519 4 19 7152152 1 page5 v1603.24IGS 126 1 2 27NGS 2019  
 715IFDDPX  
 IIGS08\_1930 IGS 20170101  
 C00090003 -604208007 16 -3101443 26 224908377 22  
 X1969A9198X1969AMAPL  
 D 1 2 -7165761 1 3 6086343 2 3 -9173367

POST-FIT RMS BY SATELLITE VS. BASELINE

	OVERALL	02	05	06	09	12	13	15	17
mada-9198	0.014	...	0.010	0.012	0.018	0.013	0.017	0.019	0.018
	19	23	29						
mada-9198	0.013	0.018	0.011						
	OVERALL	02	05	06	09	12	13	15	17
matu-9198	0.013	...	0.009	0.010	0.016	0.013	0.013	...	0.014
	19	23	29						
matu-9198	0.013	0.020	0.013						
	OVERALL	02	05	06	09	12	13	15	17
mapl-9198	0.015	...	0.011	0.012	0.021	0.013	0.020	0.022	0.015
	19	23	29						
mapl-9198	0.015	0.019	0.014						

OBS BY SATELLITE VS. BASELINE

	OVERALL	02	05	06	09	12	13	15	17
mada-9198	1889	...	333	333	267	247	126	23	128
	19	23	29						
mada-9198	182	73	177						
	OVERALL	02	05	06	09	12	13	15	17
matu-9198	1882	...	333	327	237	252	124	...	148
	19	23	29						
matu-9198	198	60	203						
	OVERALL	02	05	06	09	12	13	15	17
mapl-9198	1962	...	332	333	279	254	136	27	127
	19	23	29						
mapl-9198	189	100	185						

ITRF position of 9198 as determined by individual baselines

	X	Y	Z
mada	1634395.569	-4482983.306	4218058.420
matu	1634395.565	-4482983.305	4218058.429
mapl	1634395.562	-4482983.312	4218058.413

Residuals of position determined by individual baselines from the final position

	X	Y	Z	East	North
Up					
mada	0.003	0.001	-0.000	0.004	
0.000	-0.000				
matu	-0.001	0.003	0.008	0.000	
0.008	0.003				
mapl	-0.003	-0.004	-0.008	-0.004	-
0.008	-0.003				

Covariance Matrix for the xyz OPUS Position (meters^2).

0.0000014400	-0.0000001743	0.0000001589
-0.0000001743	0.0000042800	-0.0000003421
0.0000001589	-0.0000003421	0.0000033267

Covariance Matrix for the enu OPUS Position (meters^2).

0.0000016610	0.0000005410	-0.0000005636
0.0000005410	0.0000032749	-0.0000003173
-0.0000005636	-0.0000003173	0.0000041107

Horizontal network accuracy = 0.00393 meters.

Vertical network accuracy = 0.00398 meters.

Derivation of NAD 83 vector components

Position of reference station ARP in NAD\_83(2011) (EPOCH:2010.0000).

	Xa (m)	Ya (m)	Za (m)	
MADA	1551942.20282	-4514375.16045	4215782.94008	2010.00
MATU	1620660.33661	-4463287.86356	4244046.68810	2010.00
MAPL	1573975.68270	-4483294.89188	4240549.24479	2010.00

Position of reference station monument in NAD\_83(2011) (EPOCH:2010.0000).

	Xr (m)	Yr (m)	Zr (m)	
MADA	1551942.20282	-4514375.16045	4215782.94008	2010.00
MATU	1620660.33661	-4463287.86356	4244046.68810	2010.00
MAPL	1573975.68270	-4483294.89188	4240549.24479	2010.00

Velocity of reference station monument in NAD\_83(2011) (EPOCH:2010.0000).

	Vx (m/yr)	Vy (m/yr)	Vz (m/yr)
MADA	-0.01530	-0.00140	0.00410
MATU	-0.01540	-0.00140	0.00430
MAPL	-0.01540	-0.00140	0.00420

Vectors from unknown station monument to reference station monument

9198196t.19o.txt created: 2019-07-15 22:26 UTC downloaded: 2020-09-08 14:04 UTC

in NAD\_83(2011) (EPOCH:2010.0000) .

	Xr-X= DX(m)	Yr-Y= DY(m)	Zr-Z= DZ(m)	
MADA	-82454.28318	-31390.41445	-2275.47492	2010.00
MATU	-13736.14939	19696.88244	25988.27310	2010.00
MAPL	-60420.80330	-310.14588	22490.82979	2010.00

STATE PLANE COORDINATES - U.S. Survey Foot

	SPC (2001	MA M)
Northing (Y) [feet]	2707557.295	
Easting (X) [feet]	1074389.826	
Convergence [degrees]	1.02823611	
Point Scale	1.00000758	
Combined Factor	1.00001128	

\*\*\*\*\* New Reference Frame Preview \*\*\*\*\*

We are replacing the nation's NAD 83 and NAVD 88 datums, to improve access and accuracy of the National Spatial Reference System. More at <https://geodesy.noaa.gov/datums/newdatums/>

Below are approximate coordinates for this solution in the new frames:

APPROX ORTHO HGT: 4.203 (m) [PROTOTYPE (Computed using xGeoid17B,GRS80,IGS08)]



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**ESR-2074**

Reissued 02/2019

This report is subject to renewal 02/2021.

# ICC-ES Evaluation Report

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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**



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



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# ICC-ES Evaluation Report

**ESR-2074**

Reissued February 2019

This report is subject to renewal February 2021.

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A Subsidiary of the International Code Council®

**DIVISION: 08 00 00—OPENINGS**

**Section: 08 95 43—Vents/Foundation Flood Vents**

**REPORT HOLDER:**

**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

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>

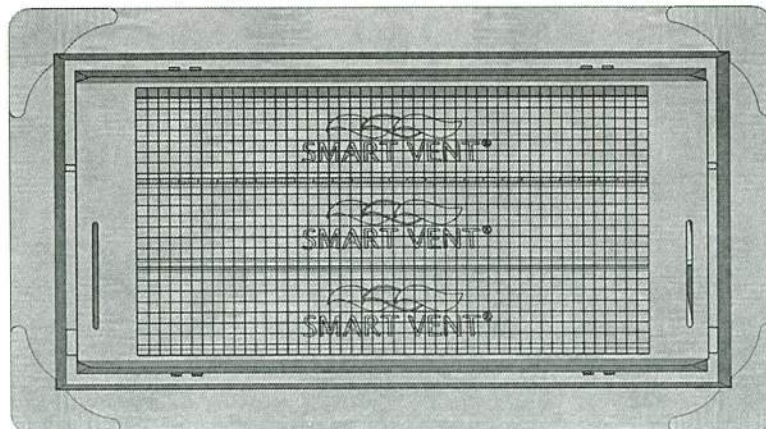


FIGURE 1—SMART VENT: MODEL 1540-510

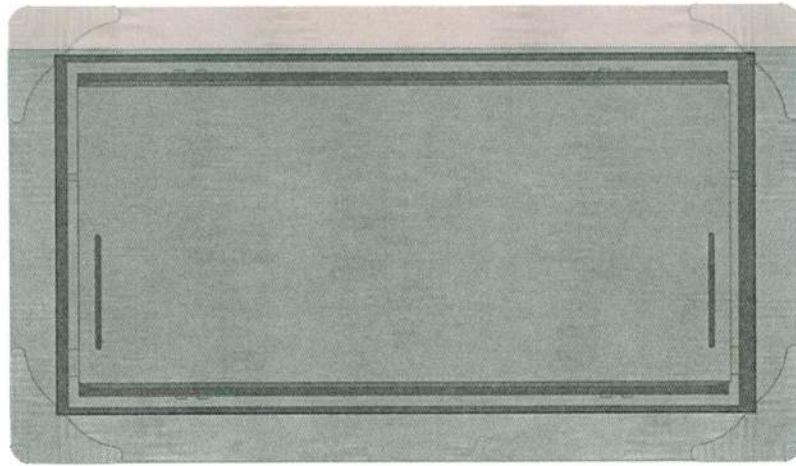


FIGURE 2—SMART VENT MODEL 1540-520

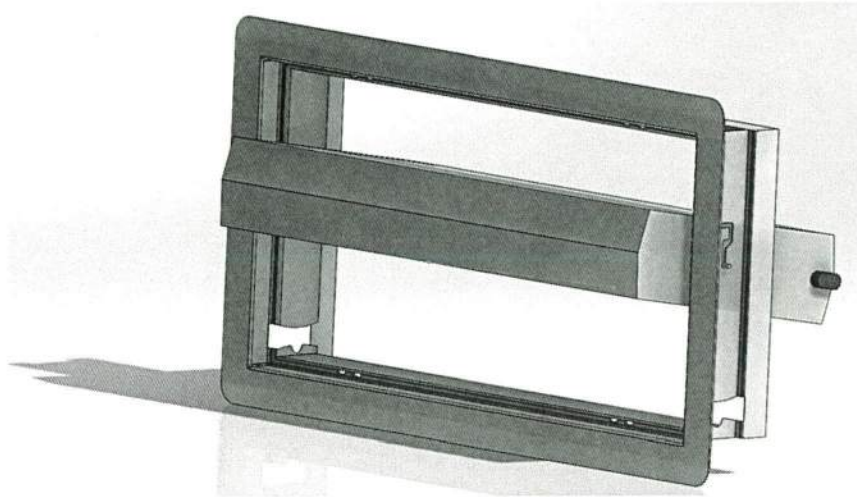


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

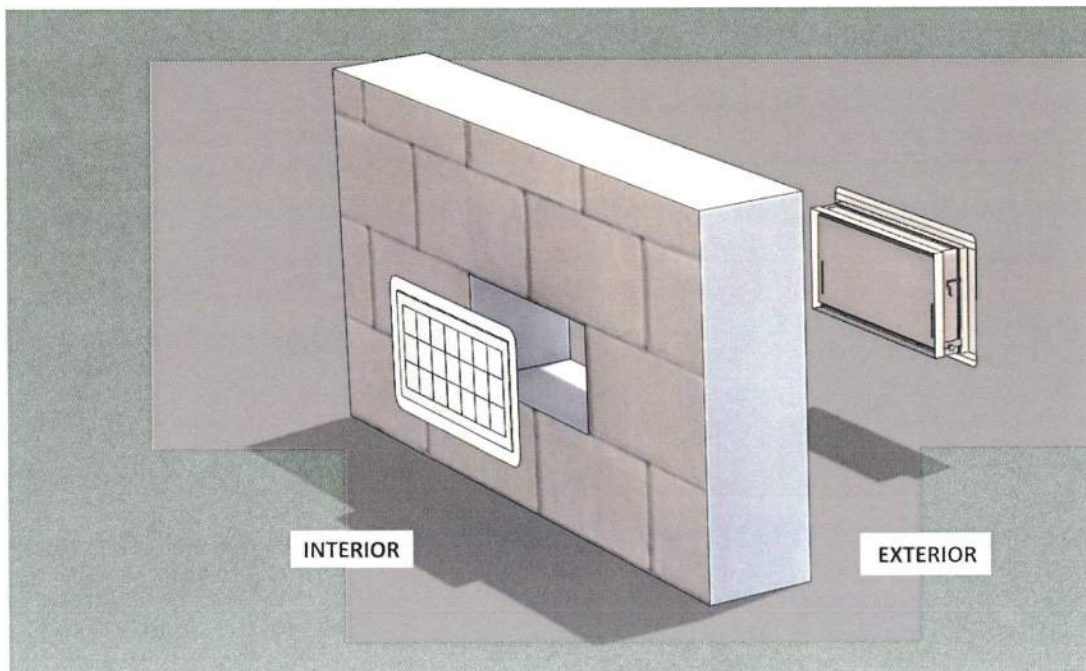


FIGURE 4—FLOOD VENT SEALING KIT

## ICC-ES Evaluation Report

## ESR-2074 CBC and CRC Supplement

Reissued February 2019

This report is subject to renewal February 2021.

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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 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.



## ICC-ES Evaluation Report

## ESR-2074 FBC Supplement

Reissued February 2019

This report is subject to renewal February 2021.

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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 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 2019.