National Flood Insurance Program Expiration Date: July 31, 2015 Important: Read the instructions on pages 1-9. PROPRINCIPALITY OF THE PROPERTY OF THE PROPERT SECTION A - PROPERTY INFORMATION A1. Building Owner's Name Peter Romano Balley action best 2015 Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Tommer walston and the ر 106 N. Washington Ave. City CITY OF MARGATE CITY State N.I ZIP Code 08402 C E I A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) **BLOCK 327 LOT 402** APK 7114 A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL A5. Latitude/Longitude: Lat. N 39.3240 Long. W 074.5154 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): A9. For a building with an attached garage: a) Square footage of crawlspace or enclosure(s) 1200 a) Square footage of attached garage sq ft N/A b) Number of permanent flood openings in the attached garage b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade within 1.0 foot above adjacent grade N/A c) Total net area of flood openings in A8.b 1264 sq in Total net area of flood openings in A9.b N/A sa in d) Engineered flood openings? 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 CITY OF MARGATE 345304 ATLANTIC COUNTY NJ B4. Map/Panel Number B5. Suffix **B6. FIRM Index Date** B8. Flood B9. Base Flood Elevation(s) (Zone **B7. FIRM Panel** Effective/Revised Date Zone(s) A8 AO, use base flood depth) 10/18/1983 345304 / 0001 C No Index Printed B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9. ☐ FIS Profile ☐ Community Determined ☐ Other/Source: B11. Indicate elevation datum used for BFE in Item B9: X 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 ☐ CBRS Designation Date: ☐ OPA SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) ☐ Building Under Construction\* C1. Building elevations are based on: ☐ Construction Drawings\* \*A new Elevation Certificate will be required when construction of the building is complete. 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: private 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) 6.9 ☐ meters b) Top of the next higher floor. 16.1 ☐ meters c) Bottom of the lowest horizontal structural member (V Zones only) N/A. ⊠ feet ☐ meters d) Attached garage (top of slab) 6.9 ☐ meters e) Lowest elevation of machinery or equipment servicing the building ☐ meters 15.8 (Describe type of equipment and location in Comments) f) Lowest adjacent (finished) grade next to building (LAG) <u>6.7</u> ☐ meters g) Highest adjacent (finished) grade next to building (HAG) ☐ meters 6.8 h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support N/A. ☐ meters SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. Check here if comments are provided on back of form. Were latitude and longitude In Section A provided by a PLACE Check here if attachments. licensed land surveyor? SEAL HERE Certifier's Name Paul H. Koelling, PLS License Number NJ24GS 02177100 de Licensed Land Surveyor Company Name Paul H. Koelling & Associates, LLC Address 2161 Shore Road City Linwood State NJ **ZIP Code 08221** Signature Date 3/20/14 Telephone (609) 927-0279

ELEVATION CERTIFICATE

OMB No. 1660-0008

Deslaces all provious aditions

FEDERAL EMERGENCY MANAGEMENT AGENCY

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	y the corresponding information from		*	FOR INC.		reet Addres'
Building Street Address (including Apt., Ur 106 N. Washington Ave.	nit, Suite, and/or Bldg. No.) or P.O. Route and	Box No.		FOR INSU Policy Nur	RANCE Tiber;	Street
City MARGATE	State NJ	ZIP Code 084	102	Company	NAIC Number	A S
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Comments *A8b.) Flood Solutions Vents model #1608 ****C2e.) Ductwork elevation	B-C engineered for 158 square inches of net	area				
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Signature PLH	Date	3/20/14				
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<ul> <li>and C. For Items E1–E4, use natural grade</li> <li>E1. Provide elevation information for the grade (HAG) and the lowest adjacent a) Top of bottom floor (including base b) Top of bottom floor (including base E2. For Building Diagrams 6–9 with perm (elevation C2.b in the diagrams) of th</li> <li>E3. Attached garage (top of slab) is</li> <li>E4. Top of platform of machinery and/or e</li> <li>E5. Zone AO only: If no flood depth numbers</li> </ul>	ement, crawlspace, or enclosure) isement, crawlspace, or enclosure) isement, crawlspace, or enclosure) isement, crawlspace, or enclosure) isement, crawlspace, or enclosure) isement flood openings provided in Section A It ement flood flood in Section A It ement flood flood in Section Flood in Sectio	In Puerto Ricci show whether fee fee fee above or below feet [elevated in acceptance]	only, enter me the elevation is et	ters. above or above o above o above o finstru he HAG.	below the higher below the r below the ctions), the next	est adjacer HAG. LAG. at higher flo
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he property owner or owner's authorized re	epresentative who completes Sections A, B,	and E for Zone	A (without a Fi	EMA-issue	d or community	/-issued BF
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# **ICC-ES Report**

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**ESR-3760** 

Reissued 03/2015 This report is subject to renewal 03/2016

**DIVISION: 08 00 00—OPENINGS** 

SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

## **REPORT HOLDER:**

## FLOOD SOLUTIONS, LLC

ONE INDUSTRIAL PARK DRIVE, BUILDING 27 PELHAM, NEW HAMPSHIRE 03076

**EVALUATION SUBJECT:** 

STATIC FLOOD VENTS



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# **ICC-ES Evaluation Report**

**ESR-3760** 

Issued March 2015

This report is subject to renewal March 2016.

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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:

FLOOD SOLUTIONS, LLC
ONE INDUSTRIAL PARK DRIVE
BUILDING 27
PELHAM, NEW HAMPSHIRE 03076
(800) 325-9775
www.floodsolutions.com
info@floodsolutions.com

#### **EVALUATION SUBJECT:**

#### STATIC FLOOD VENTS

#### 1.0 EVALUATION SCOPE

## Compliance with the following codes:

- 2015, 2012 and 2009 International Building Code®
- 2015, 2012 and 2009 International Residential Code®

#### Property evaluated:

Water flow

## 2.0 USES

Flood Solutions' static flood vents are used to provide for the equalization of hydrostatic flood forces on exterior walls.

#### 3.0 DESCRIPTION

## 3.1 General:

Flood Solutions' static flood vents are engineered, permanently open flood vents with no moving parts that automatically allow flood waters to enter and exit enclosed areas. The vents are constructed of aluminum and available in four models. See Table 1 for model designations and sizes. See Figure 1 for illustrations of the flood vents.

## 3.2 Engineered Opening:

The Flood Solutions static flood vents comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 for a rate of rise and fall of 5 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, the static flood vents must be installed in accordance with Section 4.0 of this report.

### 3.3 Ventilation:

Flood Solutions' static flood vents may be used to supply natural ventilation for under-floor ventilation. See Table 1

for net free area for under-floor ventilation provided by each of Flood Solutions' static flood vents.

## 4.0 DESIGN AND INSTALLATION

The Flood Solutions static flood vents are designed to be installed into walls or 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. In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, the vents must be installed as follows:

- With a minimum of two opening on different sides of each enclosed area.
- With a minimum of one vent for the square footage of enclosed area noted in Table 1.
- · Below the base flood elevation.
- With the bottom of the vent located a maximum of 12 inches (305 mm) above grade.

#### 5.0 CONDITIONS OF USE

The static flood vents described in this report comply with, or are a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- **5.1** The static flood vents 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 static flood vents 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** Manufacturer's descriptive literature and installation instructions.
- 6.2 Detail drawings.
- 6.3 Engineering calculations in accordance with ASCE/SEI 24.
- **6.4** Quality documentation in accordance with the ICC-ES Acceptance Criteria for Quality Documentation (AC10), dated June 2014.

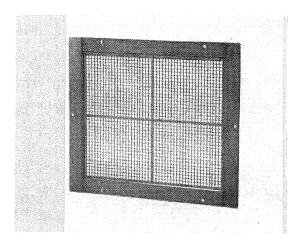
#### 7.0 IDENTIFICATION

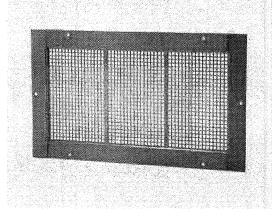
The Flood Solutions static flood vents recognized in this report must be identified by a label bearing the manufacturer's name (Flood Solutions), the model number, and the evaluation report number (ESR-3760).

TABLE 1—FLOOD SOLUTIONS STATIC FLOOD VENTS

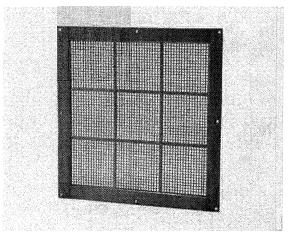
MODEL	VENT SIZE (Width x Height) (in)	ROUGH OPENING SIZE (Width x Height) (in)	ENCLOSED AREA COVERAGE (ft²)	NET FREE AREA <sup>1</sup> (in <sup>2</sup> )
FS-1608	$18^{1}/_{2} \times 10^{1}/_{2}$	16 x 8	97	80.7
FS-1616	18 <sup>1</sup> / <sub>2</sub> x 18 <sup>1</sup> / <sub>2</sub>	16 x 16	191	158.2
FS-1412	17 x 14 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub> x 12	129	106.7
FS-1608-Hex	$18^{1}/_{2} \times 10^{1}/_{2}$	16 x 8	110	91.4

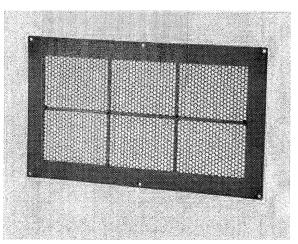
For **SI**: 1 inch = 25.4 mm; 1 ft = 304.8 mm <sup>1</sup>Available for use as under-floor ventilation.





FS-1412 FS-1608





FS-1616 FS-1608-HEX

FIGURE 1—FLOOD SOLUTIONS STATIC FLOOD VENTS