

ICC-ES Evaluation Report

ESR-3760

Reissued March 2024

This report also contains:



- FBC Supplement

Subject to renewal March 2026



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<p>DIVISION: 08 00 00— OPENINGS</p> <p>Section: 08 95 43— Vents/Foundation Flood Vents</p>	<p>REPORT HOLDER: FLOOD SOLUTIONS, LLC</p> 	<p>EVALUATION SUBJECT: STATIC FLOOD VENTS</p>	
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1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2024, 2021, 2018, 2015, 2012 and 2009 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018, 2015, 2012 and 2009 [International Residential Code® \(IRC\)](#)

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 openings 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

- 7.1 The Flood Solutions static flood vents evaluated 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).
- 7.2 The holder's contact information is the following:

FLOOD SOLUTIONS, LLC
ONE INDUSTRIAL PARK DRIVE
UNIT 26
PELHAM, NEW HAMPSHIRE 03076
(603) 595-5222
www.floodsolutions.com
info@floodsolutions.com

TABLE 1—FLOOD SOLUTIONS STATIC FLOOD VENTS

MODEL	VENT SIZE (Width x Height) (in)	ROUGH OPENING SIZE (Width x Height) (in)	ENCLOSED AREA COVERAGE (ft ²)	NET FREE AREA ¹ (in ²)
FS-1608	18 ¹ / ₂ x 10 ¹ / ₂	16 x 8	97	80.7
FS-1616	18 ¹ / ₂ x 18 ¹ / ₂	16 x 16	191	158.2
FS-1412	17 x 14 ¹ / ₂	14 ¹ / ₂ x 12	129	106.7
FS-1608-Hex	18 ¹ / ₂ x 10 ¹ / ₂	16 x 8	110	91.4

For SI: 1 inch = 25.4 mm; 1 ft = 304.8 mm

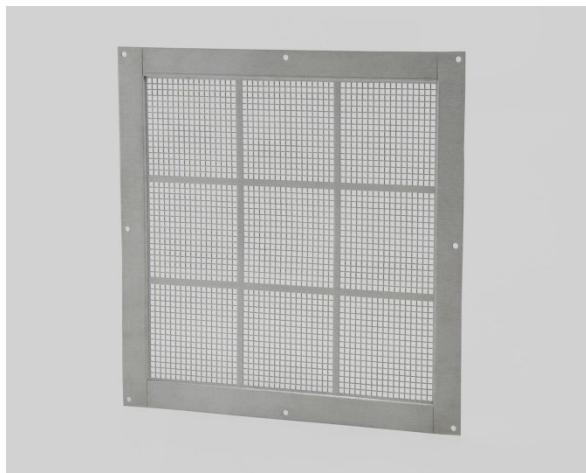
¹Available for use as under-floor ventilation.



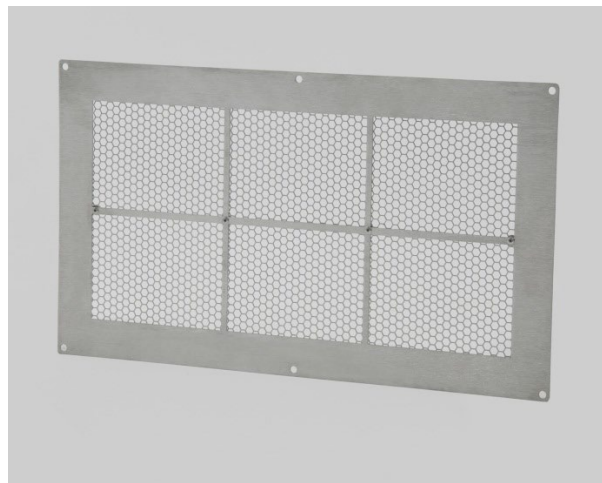
FS-1412



FS-1608



FS-1616



FS-1608-HEX

FIGURE 1—FLOOD SOLUTIONS STATIC FLOOD VENTS

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

FLOOD SOLUTIONS, LLC

EVALUATION SUBJECT:

STATIC FLOOD VENTS

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Flood Solutions' flood vents, described in ICC-ES evaluation report [ESR-3760](#), have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2023 Florida Building Code—Building
- 2023 Florida Building Code—Residential

2.0 CONCLUSIONS

The Flood Solutions flood vents, described in Sections 2.0 through 7.0 of ICC-ES evaluation report [ESR-3760](#), comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-3760 for the 2021 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable.

Use of the Flood Solutions' 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 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued March 2024.