

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 JOHN. K. STIPANCICH						Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 7321. MIDNIGHT PASS ROAD						Company NAIC Number:	
City SARASOTA.		State FLORIDA.		ZIP Code 34242			
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) PARCEL ID# 0110050017							
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) DETACHED GARAGE							
A5. Latitude/Longitude: Lat. 27-14-39 Long. -82-31-39 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 1.B							
A8. For a building with a crawlspace or enclosure(s):							
a) Square footage of crawlspace or enclosure(s) _____ sq ft							
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 0							
c) Total net area of flood openings in A8.b 507 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 1080 sq ft							
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 6							
c) Total net area of flood openings in A9.b 507 sq in							
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION							
B1. NFIP Community Name & Community Number SARASOTA CO. 125144				B2. County Name SARASOTA		B3. State FLA	
B4. Map/Panel Number 12115C0207	B5. Suffix "F"	B6. FIRM Index Date 11/4/16	B7. FIRM Panel Effective/ Revised Date 11/4/16	B8. Flood Zone(s) A-E	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 10		
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"/> EIRM <input type="checkbox"/> Community Determined <input 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, 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. 7321 MIDNIGHT PASS ROAD		Policy Number:
City SARASOTA	State FLORIDA	Company NAIC Number
ZIP Code 34242		

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: COUNTY B.M. Vertical Datum: 8.07

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929 NAVD 1988 Other/Source: _____

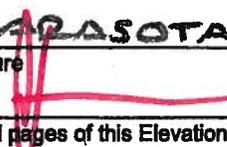
Datum used for building elevations must be the same as that used for the BFE.

	Check the measurement used.	
a) Top of bottom floor (including basement, crawspace, or enclosure floor)	<u>6.24</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor	<u>—</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	<u>—</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab)	<u>—</u>	<input 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>NONE</u>	<input type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	<u>6.12</u>	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	<u>6.26</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>N/A</u>	<input 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 THOMAS E. ROBINSON.	License Number RLS.4075	
Title P.S.M.		
Company Name ROBINSON LAND SURVEYING		
Address 1960 MAIN STREET		
City SARASOTA	State FLA	
Signature 	Date 5/9/17	Telephone 941-954-4473
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)
6 vents installed in Garage, each rated at 200 sq. ft. for a total of 1200 sq. ft.

ELEVATION CERTIFICATE

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Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <i>7321 Midnight Pass Rd.</i>			Policy Number:	
City <i>Sarasota</i>	State <i>FL</i>	ZIP Code <input checked="" type="checkbox"/> <i>34242</i>	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, 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. <i>7321 Midnight Pass Rd</i>	Policy Number:
City <i>Sarasota</i> State <i>FL</i> ZIP Code <input checked="" type="checkbox"/> <i>34242</i>	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
Community Name	Telephone
Signature	Date

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
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City <i>Sarasota</i>	State <i>FL</i>	ZIP Code <input type="checkbox"/> <i>34242</i>	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

5/8/17

Clear Photo One



Photo Two Caption

RIGHT

5/8/17

Clear Photo Two

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2018

ELEVATION CERTIFICATE

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. 7321 Midnight Pass Rd			Policy Number:	
City Sarasota	State FL	ZIP Code 34242	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.

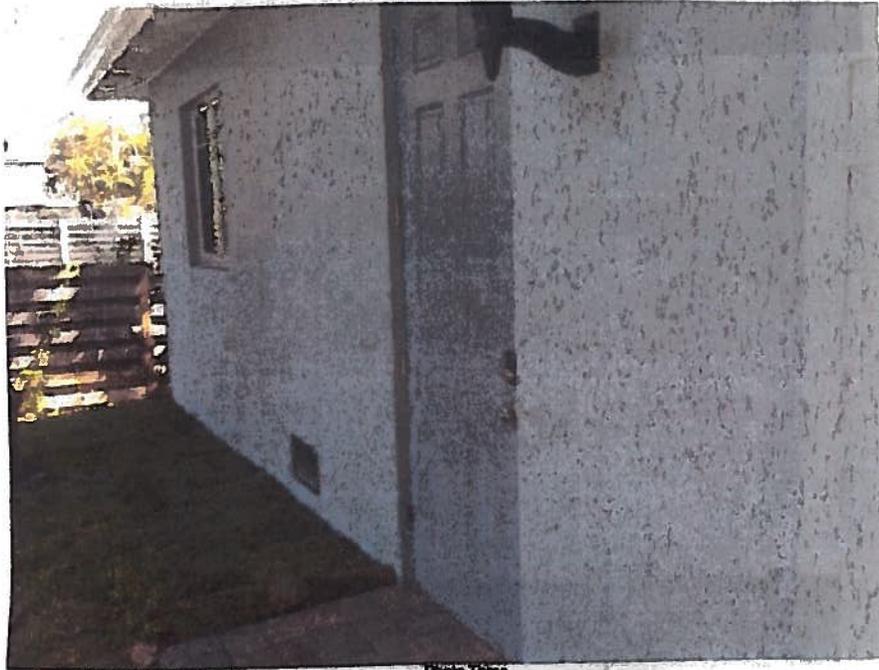


Photo Three

Photo Three Caption

LEFT

5/8/17

Clear Photo Three

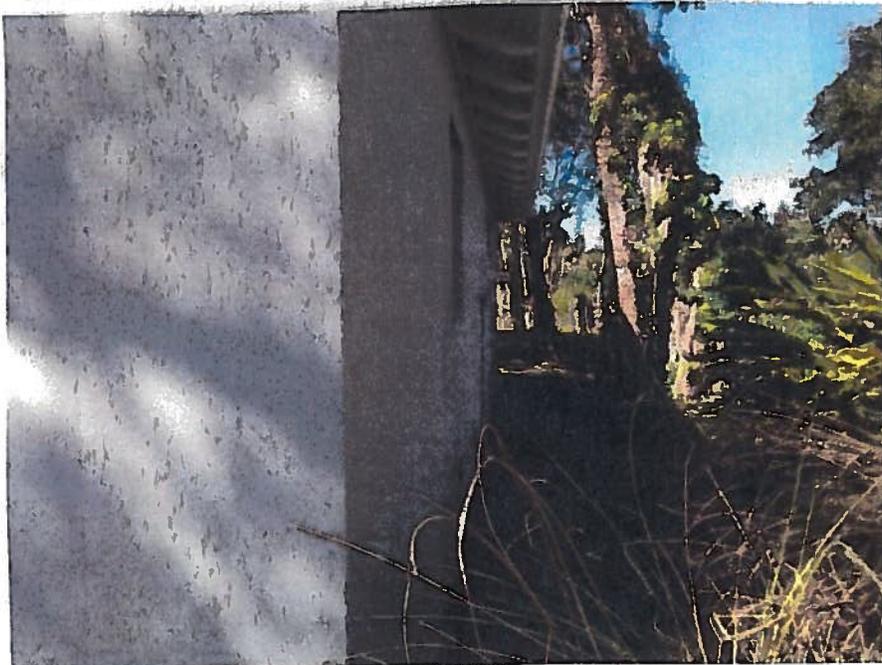


Photo Four

Photo Four Caption

REAR

5/8/17

Clear Photo Four

USA Foundation Flood Vents

SPECIFICATIONS

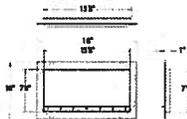


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INSTALLATION

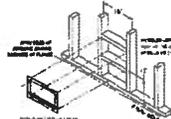
BLOCK WALL-STANDARD WALL

Rough Opening Diagram



STUD WALL-RETROFIT VENT

Rough Opening Diagram



NOTE Use Lexel® synthetic rubber elastomeric sealant (or equivalent) for best results.

ACCESSORIES

WINTER COVERS

Designed to be used with our Flood & Air vents. For those cold winter months, our covers will keep the cold air out of your crawl space or foundation, and help prevent your pipes from freezing. Available in white, black and grey.



- Before installing winter cover: insert two pegs (supplied) into grommet holes. Insert peg in hole on grommet head side (1/16" proud of cover) by firmly pushing until flush in grommet. Next, pull peg back 1/8" until it clicks into retracted position.
- Next align the winter cover to sit flush on the vent door face; the two grommets will snap into holes in the third row from the top of vent door.
- The cover must be centrally positioned and not proud of either side of the vent door.
- Press each peg to click flush to the grommet again and the winter cover will be locked in place.
- To remove the winter cover simply reverse the process.



63 Putnam St., Suite 202
Saratoga Springs, NY 12866
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www.usafloodairvents.com



USA Foundation Flood Vents Specifications



	STANDARD FLOOD		STANDARD FLOOD & AIR		RETROFIT	
	FOSS Flood Only Stainless Steel	FOAL (WHITE/BLACK/GREY) Flood Only Aluminum Powder Coated	FASS Flood & Air Stainless Steel	FAAL (WHITE/BLACK/GREY) Flood & Air Aluminum Powder Coated	ROSS* Retrofit Flood Only Stainless Steel	ROAL (WHITE/BLACK/GREY) Retrofit Flood Only Aluminum
Marine grade material fabrication	18 Gauge (.048" thick) 316 stainless steel vent frame and door	.050" thick, 5052-H32 aluminum vent frame and door	18 Gauge (.048" thick) 316 stainless steel vent frame; 14 Gauge (.074" thick) 316 stainless steel vent door	.050" thick, 5052-H32 aluminum vent frame; .080" thick, 5052-H32 aluminum vent door	18 Gauge (.048" thick) 316 stainless steel vent frame and door	.050" thick, 5052-H32 aluminum vent frame; .080" thick, 5052-H32 aluminum vent door
Rough opening	8" x 16"				8 1/2" x 14 1/2"	
Outer frame	10" x 18"				10" x 16 1/2"	
Inner frame	7 1/4" x 15 1/2"				7 1/4" x 14 1/2"	
Installation	Ideal for poured and block walls; fits into an opening the size of a regular concrete block				For wood wall construction, fits into an opening for 16" on center stud walls. Also can be used in garage doors.	
Coverage per vent	252 sq. ft. minimum (enclosed area)				224 sq. ft. minimum (enclosed area)	
Ventilation	N/A	N/A	Stainless steel perforated door provides 28 sq. inches of net free area.	Aluminum perforated door provides 37 sq. inches of net free area.	N/A	N/A
Other	N/A	Powder coating provides a smooth and professional long-lasting finish.	Perforated door provides air ventilation in a crawl space to increase air flow while providing flood protection.	Powder coating provides a smooth and professional long-lasting finish.	N/A	Powder coating provides a smooth and professional long-lasting finish.

- Operation of vent is based on hydrostatic pressure.
- Engineered openings are designed to provide the equalization of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwaters.
- A minimum of two bi-directional vents are required for enclosed flood exposed area and should be installed on opposite or adjacent walls.
- Water/Air/Mold (WAM) protection.

DESIGNED TO MEET THE REQUIREMENTS FOR ENGINEERED OPENINGS AS SET FORTH BY FEMA, NFIP, ICC & ASCE SUPPORTIVE DOCUMENTS TB 1-08, 44CFR 60.3(Q)(5), ASCE 24-14, ICC-ES AC308 TESTING REPORTS FOR PRODUCTS* certified by Intertek/ATI (Architectural Testing Inc.) and ICC-ES to meet the testing requirements of the ICC-ES-AC364 CRR-239 (CODE COMPLIANCE RESEARCH REPORT): <http://tinyurl.com/CCR-239> ICC ESR 3907 (EVALUATION REPORT): http://www.iccs-es.org/reports/pdf_files/ESR-3907.pdf

*ROSS model not currently included in CRR-239 or ICC ESR 3907. Please contact us to request individual certification.

www.usafloodairvents.com



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ICC-ES Report

ESR-3907

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Issued 10/2016

This report is subject to renewal 10/2017.

DIVISION: 08 00 00—OPENINGS

SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

REPORT HOLDER:

USA FLOOD AIR VENTS, LTD.

**63 PUTNAM STREET, SUITE 202
SARATOGA SPRINGS, NEW YORK 12866**

EVALUATION SUBJECT:

USA FLOOD AIR VENTS: MODELS FOSS; FASS; FOAL; FAAL; ROAL



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ICC-ES Evaluation Report**ESR-3907**

Issued October 2016

This report is subject to renewal October 2017.

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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:**

USA FLOOD AIR VENTS, LTD.
63 PUTNAM STREET
SUITE 202
SARATOGA SPRINGS, NEW YORK 12866
(631) 269-1872
www.usafloodairvents.com
info@usafloodairvents.com

EVALUATION SUBJECT:

**USA FLOOD AIR VENTS: MODELS FOSS; FASS; FOAL;
FAAL; ROAL**

1.0 EVALUATION SCOPE**Compliance with the following codes:**

- 2015 and 2012 *International Building Code*® (IBC)
- 2015 and 2012 *International Residential Code*® (IRC)

Property evaluated:

- Physical operation
- Water flow
- Ventilation

2.0 USES

The USA Flood Air Vents are used to provide for the equalization of hydrostatic flood forces on exterior walls. Certain models also allow natural ventilation.

3.0 DESCRIPTION**3.1 General:**

USA Flood Air Vents are engineered mechanically operated flood vents that automatically allow flood waters to enter and exit enclosed areas. The vents are constructed of stainless steel or aluminum. On contact with rising flood water, the grill will disengage from its secured position, allowing flood water and debris to flow through in either direction. See Table 1 for vent sizes and Figure 1 for an illustration of the vents.

3.1.1 FOSS: The FOSS is constructed of stainless steel and has a solid flap to prevent the free flow of air into the under-floor space.

3.1.2 FASS: The FASS is constructed of stainless steel and has a flap with $\frac{1}{4}$ inch (6 mm) diameter holes to allow for the ventilation of under-floor spaces.

3.1.3 FOAL: The FOAL is constructed of aluminum and has a solid flap to prevent the free flow of air into the under-floor space.

3.1.4 FAAL: The FAAL is constructed of aluminum and has a flap with $\frac{1}{4}$ inch (6 mm) diameter holes to allow for the ventilation of under-floor spaces.

3.1.5 ROAL: The ROAL is constructed of aluminum and has a solid flap to prevent the free flow of air into the under-floor space. It is intended for retrofit applications.

3.2 Engineered Opening:

The USA Flood Air Vents flood vents comply with the design principle noted in Section 2.7.2.2 of ASCE/SEI 24-14 (Section 2.6.2.2 of ASCE/SEI 24-05) 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, USA Flood Air Vents flood vents must be installed in accordance with Section 4.0.

3.3 Ventilation:

USA Flood Air Vents models FASS and FAAL have $\frac{1}{4}$ inch (6 mm) diameter holes in the flap to supply natural ventilation for under-floor ventilation. See Table 1 for the net free area provided for under-floor ventilation.

4.0 DESIGN AND INSTALLATION

USA Flood Air Vents flood vents are designed to be installed into walls or doors of existing or new construction. Installation of the flood vents must be in accordance with the manufacturer's instructions, the applicable code and this report. USA Flood Air Vents flood vents can be installed in wood, masonry and concrete walls. In order to comply with the engineered opening design principle noted in Section 2.7.2.2 of ASCE/SEI 24-14 (Section 2.6.2.2 of ASCE/SEI 24-05), the USA Flood Air Vents flood vents must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one flood vent per the amount of enclosed area coverage noted in Table 1.
- Below the base flood elevation.
- With the bottom of the flood vent located a maximum of 12 inches (305 mm) above grade.

5.0 CONDITIONS OF USE

The USA Flood Air Vents described in this report complies with, or is 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 USA Flood Air Vents 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 USA Flood Air Vents flood vents must not be used in 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 August 2015.

7.0 IDENTIFICATION

The USA Flood Air Vents models recognized in this report are identified by a label bearing the manufacturer's name, the model designation, and the evaluation report number (ESR-3907).

TABLE 1—USA FLOOD AIR VENTS

MODEL DESIGNATION	VENT SIZE (Width x Height) (In)	ROUGH OPENING SIZE (Width x Height) (In)	ENCLOSED AREA COVERAGE (ft ²)	FLAP NET FREE AREA ¹ (In ²)
FOSS	18 x 10	15 1/2 x 7 1/2	252	None
FASS	18 x 10	15 1/2 x 7 1/2	252	28
FOAL	18 x 10	15 1/2 x 7 1/2	252	None
FAAL	18 x 10	15 1/2 x 7 1/2	252	37
ROAL	16 3/8 x 10	13 1/8 x 7 1/2	224	None

For SI: 1 inch = 25.4 mm

¹Net free area in the vent flap for under-floor space ventilation.

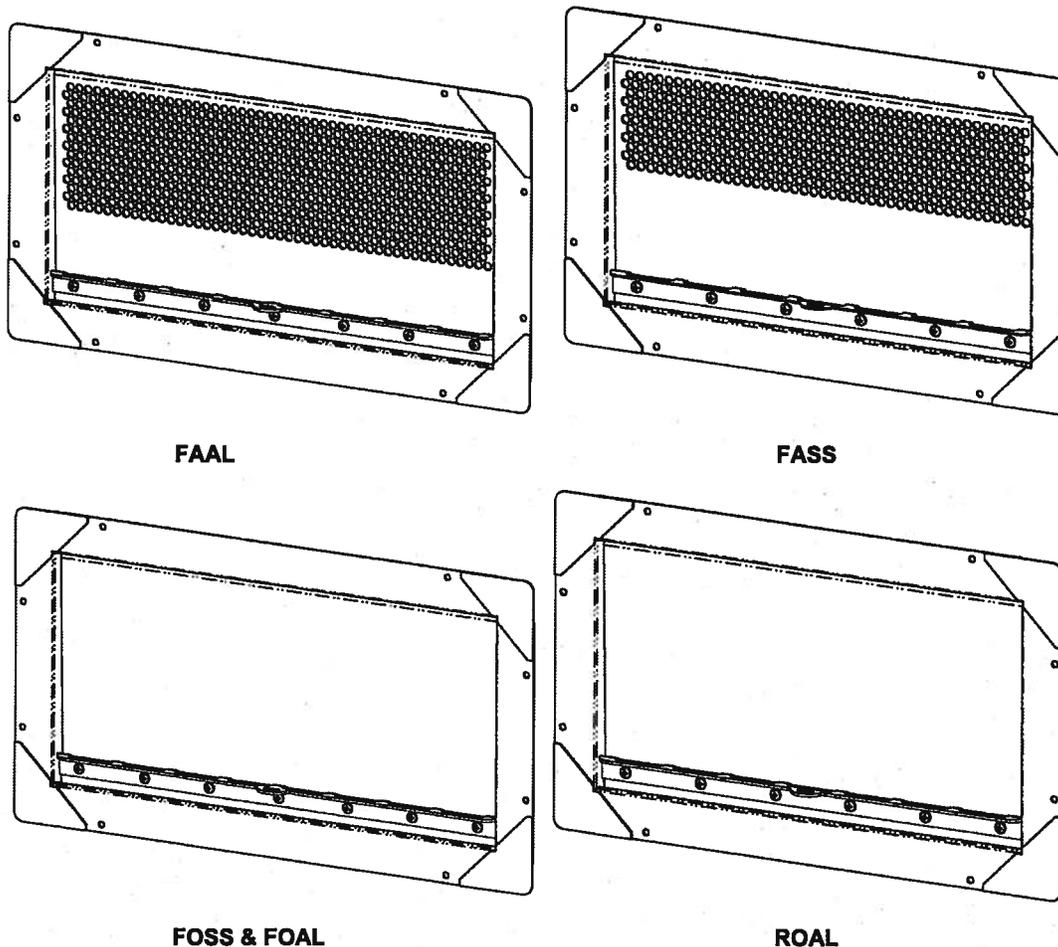


FIGURE 1—USA FLOOD AIR VENTS

ICC-ES Evaluation Report**ESR-3907 CBC and CRC Supplement**

Issued October 2016

This report is subject to renewal October 2017.

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DIVISION: 08 00 00—OPENINGS
Section: 08 95 43—Vents/Foundation Flood Vents**REPORT HOLDER:****USA FLOOD AIR VENTS, LTD.**
63 PUTNAM STREET, SUITE 202
SARATOGA SPRINGS, NEW YORK 12866
(631) 269-1872
www.usafloodairvents.com
info@usafloodairvents.com**EVALUATION SUBJECT:****USA FLOOD AIR VENTS: MODELS FOSS; FASS; FOAL; FAAL; ROAL****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that USA Flood Air Vents, recognized in ICC-ES master evaluation report ESR-3907, have also been evaluated for compliance with flood vent provisions of ASCE 24 referenced in CBC Chapters 16 and 16A and CRC Section R322; and ventilation provisions of CBC Section 1203.3 and CRC Section R408.2.

Applicable code editions:

- 2013 California Building Code (CBC)
- 2013 California Residential Code (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The USA Flood Air Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-3907, comply with flood vent provisions of ASCE 24 referenced in CBC Chapters 16 and 16A and ventilation provisions of CBC Section 1203.3, provided the applicable vents are designed and installed in accordance with the 2012 *International Building Code*® (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 16 and 16A and CBC Section 1203.3, as applicable.

2.2 CRC:

The USA Flood Air Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-3907, comply with flood vent provisions of ASCE 24 referenced in CRC Section R322; and ventilation provisions of CRC Section R408.2, provided the applicable vents are designed and installed in accordance with the 2012 *International Residential Code*® (IRC) provisions noted in the master report and the additional requirements of CRC Sections R408.2 and R322, as applicable.

This supplement expires concurrently with the master report, issued October 2016.

ICC-ES Evaluation Report**ESR-3907 FBC Supplement**

Issued October 2016

*This report is subject to renewal October 2017.***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:**

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info@usafloodairvents.com

EVALUATION SUBJECT:**USA FLOOD AIR VENTS: MODELS FOSS; FASS; FOAL; FAAL; ROAL****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that USA Flood Air Vents, recognized in ICC-ES master evaluation report ESR-3907, has also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2014 *Florida Building Code—Building*
- 2014 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The USA Flood Air Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-3907, complies with the *Florida Building Code—Building* and *Florida Building Code—Residential*, provided the design and installation are in accordance with the 2012 *International Building Code*® provisions noted in the master report.

Use of the USA Flood Air Vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and *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, issued October 2016.



Code Compliance Research Report CCRR-0239

Valued Quality. Delivered.

Issue Date: 01-18-2016
Renewal Date: 01-18-2017
Revision Date: 08-17-2016

DIVISION: 08 00 00 – OPENINGS
Section: 08 95 43 – Vents/Foundation Flood Vents

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REPORT SUBJECT:

- Model FOSS (Stainless steel flood vent)
- Model FASS (Stainless steel flood vent with ventilation)
- Model FOAL (Aluminum flood vent)
- Model FAAL (Aluminum flood vent with ventilation)
- Model ROAL (Retro-fit Aluminum flood vent)

1.0 SCOPE OF EVALUATION

This research report addresses compliance with the following Codes:

- 2012 International Building Code (IBC)
- 2012 International Resident Code (IRC)
- 2014 Florida Building Code (FBC)

Foundation Flood Vents have been evaluated for the following properties:

- Physical Operation
- Water Flow
- Ventilation

2.0 USES

2.1. *USA Floodair Vents* units are flood vents that operate on hydrostatic pressure to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit for flood waters. These vents have been established in use where flood areas have been established in accordance with IBC Section 1612.3 or IRC Section R3222.1. Some *USA Floodair Vents* models have perforated doors to provide air ventilation in a crawl space in order to increase air flow

while still providing flood protection *in accordance with Section 1203.3.1 of the IBC or Section 408.2 of the IRC.* See Ventilation in the Description Section for clarification.

3.0 DESCRIPTION

3.1. General: The *USA Floodair Vents* units are engineered openings when subjected to a hydrostatic force to open to allow flood waters to flow through the vent in order to equalize hydrostatic flood forces on the exterior walls. The solid or perforated doors swing open, disengaging from the bottom of the frame, allowing flood waters to flow through the frame. Each unit is fabricated from either stainless steel or aluminum. *USA Floodair Vents* models consist of two parts, a frame and a vent door.

3.2. Engineered Opening: The *USA Floodair Vents* units 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 requirements of ASCE/SEI 24, the *USA Floodair Vents* units must be installed in accordance with Section 4.0 of this report.

3.3. Model Sizes: Models FOSS, a stainless steel flood vent with no ventilation, measures 18 inches wide by 10 inches high (See Figure 1). Model FASS, a stainless steel flood vent with ventilation, measures 18 inches wide by 10 inches high (See Figure 2). Model FOAL, an aluminum flood vent with no ventilation, measures 18 inches wide by 10 inches high (See Figure 3). Model FAAL, an aluminum flood vent with ventilation, measures 18 inches wide by 10 inch high (See Figure 4). Model ROAL, an aluminum flood vent used for retrofitting with no ventilation, measures 16.37 inches wide by 10 inches high (See Figure 5).

3.4. Ventilation: *The USA Floodair Vents* models FASS and FAAL have ¼ inch diameter openings on the vent doors to provide air ventilation. Model FASS provides 28 square inches of net free area. Model FAAL provides 37 square inches of net free area. All other models in this report do not provide ventilation.



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4.0 INSTALLATION AND PERFORMANCE

4.1. *USA Floodair Vents* units are to be installed in exterior walls in new and existing construction. Model ROAL is to be used for existing construction. Flood vents shall be installed in accordance with the manufacturer's instructions, the applicable code and this report. To meet the engineered opening design requirements found in Section 2.6.2.2 of ASCE/SEI 24, the *USA Floodair Vents* units must be installed as follows:

4.1.1. A minimum of two bi-directional flood vents are required for enclosed flood exposed areas and to be installed on opposite or adjacent walls.

4.1.2. Below the base flood elevation.

4.1.3. With the bottom of the *USA Floodair Vents* unit located at a maximum of 12 inches above grade.

4.1.4. With a minimum of one *USA Floodair Vents* unit for every 252 square feet for Models FOSS, FASS, FOAL, and FAAL and for every 224 square feet for Model ROAL.

5.0 SUPPORTING EVIDENCE

5.1. Manufacturer's drawings and installation instructions.

5.2. Reports of testing in accordance with ICC-ES AC364, Acceptance Criteria for Mechanically Operated Flood Vents, approved August 2015. The reports of testing and engineering analysis demonstrating compliance with the performance requirements of AC364 and ASCE/SEI 24-05.

5.3. Quality control manual in accordance with ICC-ES AC10, Acceptance Criteria for Quality Documentation, dated June 2014.

6.0 CONDITION OF USE

The *USA Floodair Vents* units applications identified in this report are deemed to comply with the intent of the provisions of the referenced building codes subject to the following conditions:

6.1. Installation shall be in accordance with the manufacturer's installation instructions and this report. Where the difference occur between this report and the manufacturer's installation instructions, this report shall govern.

6.2. The *USA Floodair Vents* units 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.

6.3. All products are manufactured in West Columbia, South Carolina by *USA Floodair Vents, LTD* in accordance with the manufacturer's approved quality control system with inspections by Intertek (IAS AA-676).

7.0 IDENTIFICATION

USA Floodair Vents units produced in accordance with this report shall be identified with labeling on the individual vents and/or packaging that includes the following information:

7.1. Name and/or trademark of manufacturer;

7.2. The Intertek Code Compliance Research Report mark and number (CCRR-0239).

CODE
COMPLIANCE



Intertek
CCRR-0239

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

8.0 CODE COMPLIANCE RESEARCH REPORT USE

8.1. Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

8.2. Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Architectural Testing.

8.3. Reference to the Intertek website address: whdirectory.intertek.com is recommended to ascertain the current version and status of this report.

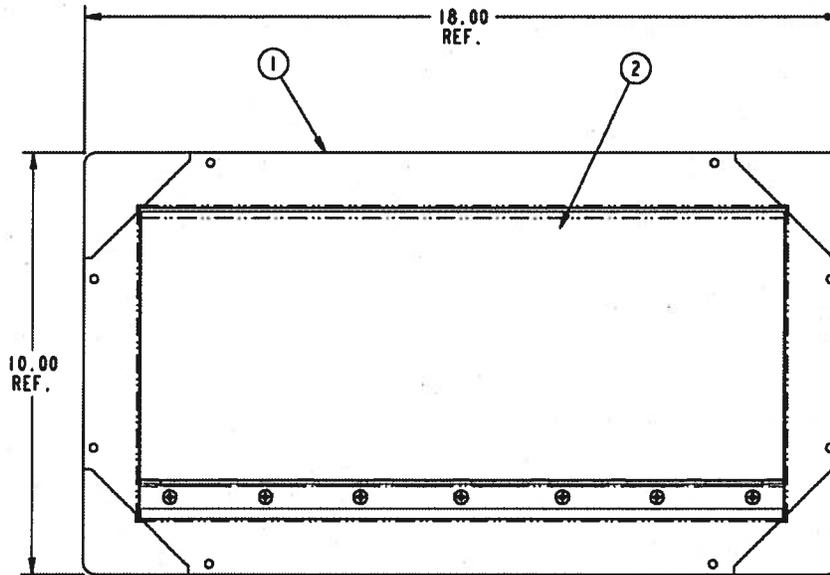


FIGURE 1 – FOSS Flood Vent

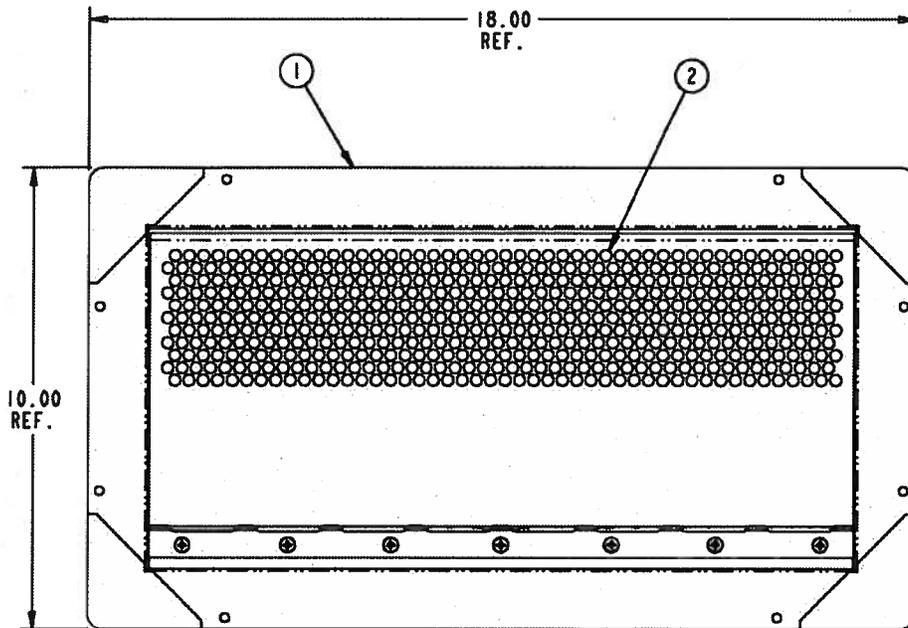


FIGURE 2 – FASS Flood Vent

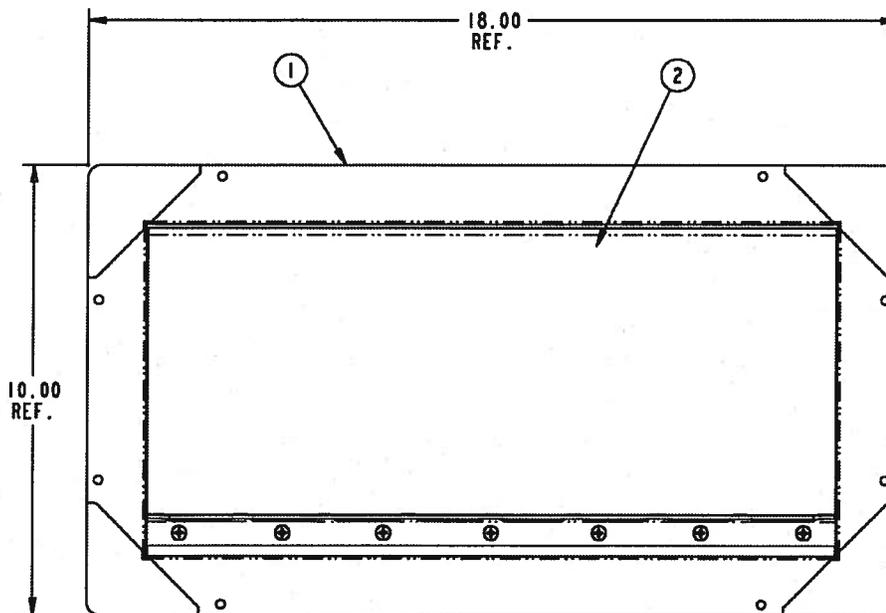


FIGURE 3 – FOAL Flood Vent

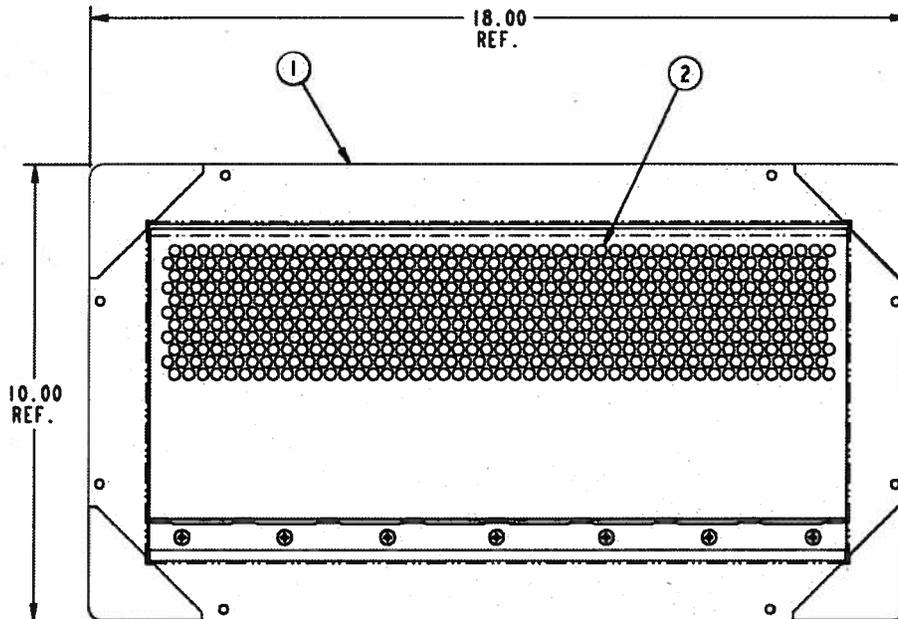


FIGURE 4 – FAAL Flood Vent

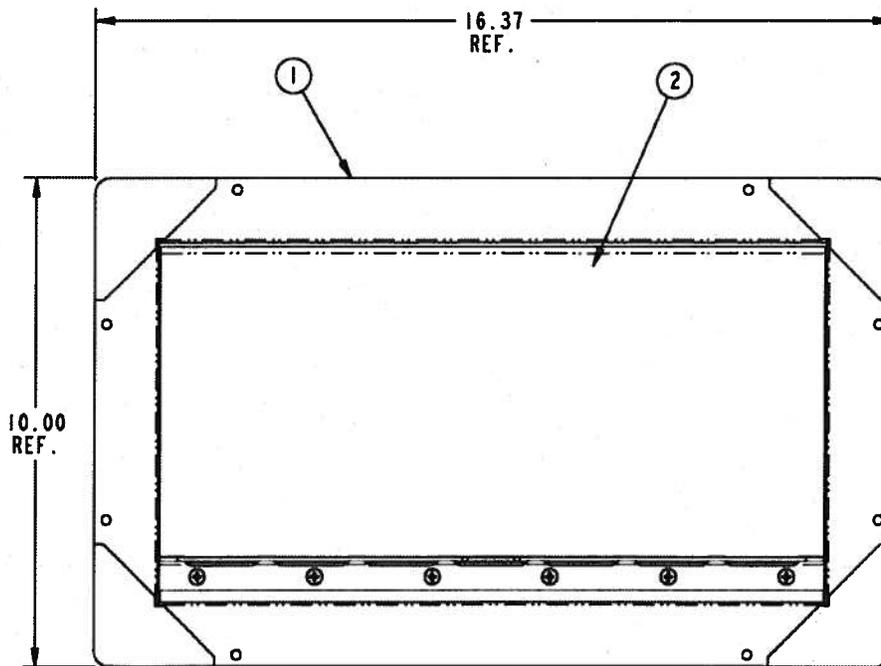


FIGURE 5 – ROAL Flood Vent