

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

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. 817 BRENTWOOD DRIVE		Policy Number:
City VENICE	State FLORIDA <input type="checkbox"/>	Company NAIC Number
	ZIP Code 34292	

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 21-107666 BA	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.

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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 PHIL + JESSICA VETS					Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 817 BRENTWOOD DRIVE					Company NAIC Number:
City VENICE		State FLORIDA <input checked="" type="checkbox"/>		ZIP Code 34292	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) COUNTY TAX PARCEL # 0732003180					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) ACCESSORY, DETACHED GARAGE					
A5. Latitude/Longitude: Lat. 27.114770N. Long. -82.347080W. 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 1A					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) 840 sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 3					
c) Total net area of flood openings in A8.b 915 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 NA sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade NA					
c) Total net area of flood openings in A9.b NA 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 SARASOTA COUNTY 125144			B2. County Name SARASOTA		B3. State FLORIDA <input checked="" type="checkbox"/>
B4. Map/Panel Number 12115C0351F	B5. Suffix F	B6. FIRM Index Date 11/04/2016	B7. FIRM Panel Effective/ Revised Date 11/04/2016	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 7.0
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input 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					

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City VENICE	State FLORIDA <input checked="" type="checkbox"/>	Company NAIC Number
ZIP Code 34292		

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 BENCH MARKS** Vertical Datum: **1929 NGVD**

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) 9.4 feet meters
- b) Top of the next higher floor NA feet meters
- c) Bottom of the lowest horizontal structural member (V Zones only) NA feet meters
- d) Attached garage (top of slab) NA feet meters
- e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) NA feet meters
- f) Lowest adjacent (finished) grade next to building (LAG) 8.9 feet meters
- g) Highest adjacent (finished) grade next to building (HAG) 9.2 feet meters
- h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support NA feet 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 BRUCE LINDH	License Number PLS # 4306	
Title LAND SURVEYOR		
Company Name BRUCE LINDH LAND SURVEYOR, INC.		
Address 1380 CAMBRIDGE DRIVE		
City VENICE	State FLORIDA <input checked="" type="checkbox"/>	
	ZIP Code 34293	
Signature 	Date 3/27/2022	Telephone 941-496-7828
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)

- 1) THIS CERTIFICATE IS A REVISION OF CERTIFICATE DATED 3/14/2022..
- 2) ENGINEERED FLOOD OPENINGS MANUFACTURED BY CRAWL SPACE DOOR SYSTEMS, INC., MODEL NUMBER C SBA 816, REPORT NUMBER ESR-3851, RATED 305 SQ. IN. PER UNIT.

STATE OF FLORIDA

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IMPORTANT: In these spaces, copy the corresponding information from Section A.		FOR INSURANCE COMPANY USE	
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City VENICE	State FLORIDA	ZIP Code 34292	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.

BUILDING PHOTOGRAPHS

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See Instructions for Item A6.

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City VENICE	State FLORIDA	ZIP Code <input checked="" type="checkbox"/> 34292	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.



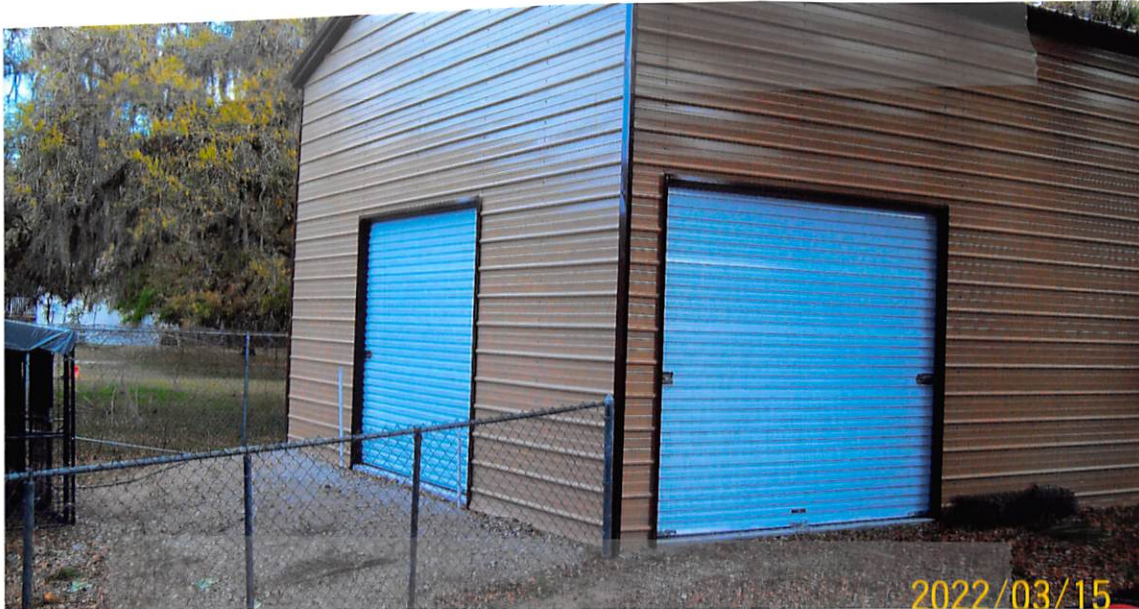
FRONT VIEW

Photo One

EAST SIDE

Photo One Caption

Clear Photo One



REAR VIEW

Photo Two

WEST SIDE

Photo Two Caption

Clear Photo Two

BUILDING PHOTOGRAPHS

Continuation Page

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Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. <p style="text-align: center; font-size: 1.2em;">817 BRENTWOOD DRIVE</p>			Policy Number:
City <p style="text-align: center; font-size: 1.2em;">VENICE</p>	State <p style="text-align: center; font-size: 1.2em;">FLORIDA</p>	ZIP Code <p style="text-align: center; font-size: 1.2em;">34292</p>	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.



SOUTH SIDE

Photo Three



VENT ON SOUTH SIDE

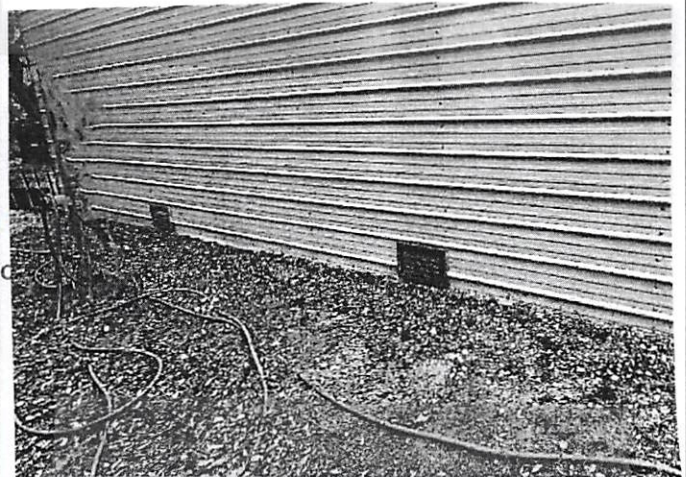
Photo Three Caption

Clear Photo Three



NORTH SIDE

Photo Four



(2) VENTS ON NORTH SIDE

Photo Four Caption

Clear Photo Four

Flood vents

David McBride <david.m@millenniumbuildings.com>
To: Philip Vets <phil.vets@gmail.com>

Thu, Feb 25, 2021 at 4:12 PM

sorry , It was the same pictures that they already sent

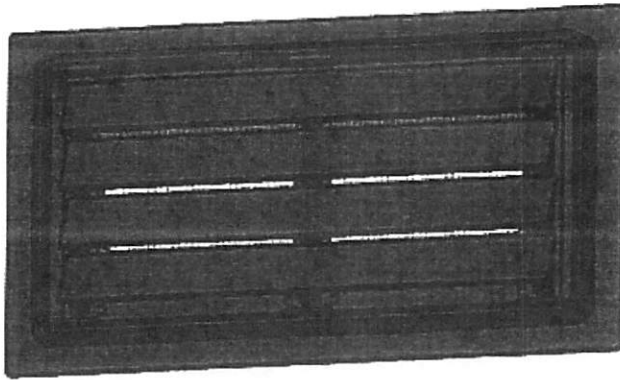


FIGURE 1—CRAWL SPACE DOOR SYSTEMS FLOOD VENT

TABLE 1—CRAWL SPACE DOOR SYSTEMS FLOOD VENT

MODEL	OVERALL VENT SIZE (Width x Height x Depth) (in)	ROUGH OPENING SIZE (Width x Height) (in)	ENCLOSED AREA COVERAGE (ft ²)
CSBA816	18 1/4 x 10 1/2 x 1 1/4	16 x 8 1/4	305

[Quoted text hidden]

David McBride

Building Specialist

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david.m@millenniumbuildings.com



Certification of Engineered Flood Openings

In accordance with the Code of Federal Regulations for the National Flood Insurance Program

I hereby certify that the **Crawl Space Door Systems flood vents 816CS, 1220CS, 1232CS, 1616CS, 1624CS, 1632CS, 2032CS, 2424CS, and 2436CS** are **designed** in accordance with the requirements of the Code of Federal Regulations for the National Flood Insurance Program (NFIP) **to provide automatic equalization of hydrostatic flood forces by allowing for the entry and exit of floodwaters**, when properly installed and sized as set forth below. Vent opening measurements were measured and certified by Mr. Christopher Mark Loney, Virginia P.E. NO. 029000. Detailed calculations were prepared as outlined in "Review of certification of Engineered Flood Openings," prepared by Dr. Georg Reichard, Associate Professor of Building Construction, Virginia Tech (available upon request from Crawl Space Door Systems, Inc. billy@crawlspacedoors.com)

Design Characteristics

Section 2.6.2.2 of ASCE/SEI 24-05 provides an equation to determine the required net area of engineered openings (A_o) for a given enclosed area (A_e). This equation is based on the hydraulic formula for the flow rate across sharp edged orifices. I have utilized this equation to calculate 1) the restricted flow rate through the main frame opening in case the louver is blown out during a flood event; 2) the flow rate through the individual openings between louver blades; and 3) the flow rate through projected openings between louver blades following hydraulic short-tube theory. The maximum total enclosed area (A_e) that can be serviced by a single vent has then been determined by utilizing the lowest flow rate of the three assessed scenarios for each vent and is listed in Table 1. These values are based on the following assumptions:

- In absence of reliable data, the rates of rise and fall have been assumed at a minimum rate of 5 feet/hour;
- The (maximum) difference between the exterior and interior floodwater levels shall not exceed 1 foot during base flood conditions;
- A factor of safety of 5 has been assumed, which is consistent with design practices related to protection of life and property;
- The net area of openings (A_o) as provided by the manufacturer.

*)	Model	H x W [in]	A_o [in ²]	A_e [ft ²]
<input type="checkbox"/>	816CS	8 x 16	105	205
<input type="checkbox"/>	1220CS	12 x 20	235	500
<input type="checkbox"/>	1232CS	12 x 32	305	645
<input type="checkbox"/>	1616CS	16 x 16	180	395
<input type="checkbox"/>	1624CS	16 x 24	310	670
<input type="checkbox"/>	1632CS	16 x 32	405	835
<input type="checkbox"/>	2032CS	20 x 32	630	1240
<input type="checkbox"/>	2424CS	24 x 24	570	1230
<input type="checkbox"/>	2436CS	24 x 36	850	1765

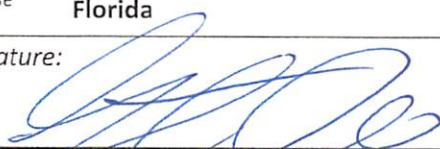
Installation Requirements and Limitations

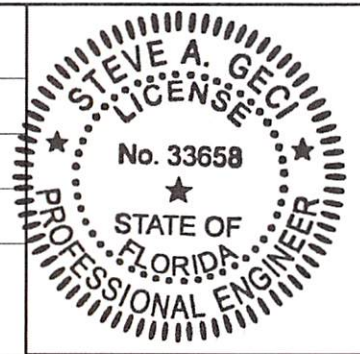
This certification will be voided if the following installation requirements and limitations are not enforced:

- There shall be a minimum of two openings on different sides of each enclosed area subject to flooding;
- The bottom of all openings shall be no higher than one foot above the higher of the interior or exterior grade that is immediately under each opening;
- No temporary (e.g. during cold weather) or permanent solid cover may be placed into or over the flood vent that would block the automatic entry or exit of floodwaters at any time;
- Where data or analyses indicate more rapid rates of rise and fall, the required number of openings shall be increased to account for those different conditions. The number or size of the openings may be decreased if data or analyses indicate rates of rise and fall are less than 5 feet per hour.

Table 1 Maximum total enclosed area (A_e) that can be serviced by each individual model based on the given net area of engineered openings (A_o)

Certifying Design Professional

<i>Name</i>	Steve A. Geci	<i>Title</i>	President
<i>Company</i>	Geci & Associates Engineers, Inc.		
<i>Address</i>	2950 N 12 th Avenue, Pensacola, FL 32503		
<i>License</i>	Florida	<i>License No.</i>	33658
<i>Signature:</i>			<i>Date:</i> 11/29/17



Identification of the Building and Installed Flood Vents (By Others)

The flood vent models marked in Table 1*) are being installed at the following building:

Building Address

DIVISION: 08 00 00—OPENINGS**Section: 08 95 43—Vents/Foundation Flood Vents****REPORT HOLDER:****CRAWL SPACE DOOR SYSTEMS, INC.****EVALUATION SUBJECT:****CRAWL SPACE DOOR SYSTEMS FLOOD VENT****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that Crawl Space Door Systems flood vent, described in ICC-ES evaluation report [ESR-3851](#), has also been evaluated for compliance with the code(s) noted below.

Applicable code edition(s):

- 2019 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) and Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The Crawl Space Door Systems flood vent, described in Sections 2.0 through 7.0 of the evaluation report [ESR-3851](#), complies with CBC Chapter 12, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 12 and 16, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Crawl Space Door Systems flood vent, described in Sections 2.0 through 7.0 of the evaluation report [ESR-3851](#), complies with 2019 CRC, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued September 2020.