

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.
494-CRANE-ROAD

Policy Number:

City
VENICE

State
Florida

ZIP Code
34293

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 17-144729 B1	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.

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
 IGOR & YULIYA STUPAK

Policy Number:

A2. Building Street Address (including Apt. Unit, Suite, and/or Bldg. No.) or P. O. Route and Box No.
 494 CRANE ROAD

Company NAAC Number:

City
 VENICE

State
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 34293

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
 LOTS 4442, 4443 & 4444, SOUTH VENICE UNIT #17, TAX ID #0450130007

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL

A5. Latitude/Longitude: Lat. 27.04991°

Long. -82.41454°

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 1B

A8. For a building with a crawspace or enclosure(s):

a) Square footage of crawspace or enclosure(s) 0 sq ft

b) Number of permanent flood openings in the crawspace or enclosure(s) within 1.0 foot above adjacent grade 0

c) Total net area of flood openings in A8.b 0 sq in

d) Engineered flood openings? Yes No

A9. For a building with an attached garage:

a) Square footage of attached garage 418 sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 4

c) Total net area of flood openings in A9.b 512 sq in

d) Engineered flood openings? Yes 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

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
12115C-0341	F	11-04-2016	11-04-2016	AE	10'

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
 FIS Profile FIRM Community Determined Other/Source: _____

B11. Indicate elevation datum used for BFE in Item B9: 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
 Designation Date: _____ CBRS OPA

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 494 GRANE ROAD

FOR INSURANCE COMPANY USE
 Policy Number:

City: VENICE
 State: Florida
 ZIP Code: 34293

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, ARA, AR/AE, ARA1-A30, ARAH, ARA/O.
 Complete items C2.a-h below according to the building diagram specified in item A7. In Puerto Rico only, enter meters.
 Benchmark Utilized: SARCO BM #458 EL: 13.48' 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, crawspace, or enclosure floor)	10.7 feet <input checked="" type="checkbox"/>	meters <input type="checkbox"/>
b) Top of the next higher floor	N/A feet <input checked="" type="checkbox"/>	meters <input type="checkbox"/>
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A feet <input checked="" type="checkbox"/>	meters <input type="checkbox"/>
d) Attached garage (top of slab)	9.3 feet <input checked="" type="checkbox"/>	meters <input type="checkbox"/>
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	10.6 feet <input checked="" type="checkbox"/>	meters <input type="checkbox"/>
f) Lowest adjacent (finished) grade next to building (LAG)	7.6 feet <input checked="" type="checkbox"/>	meters <input type="checkbox"/>
g) Highest adjacent (finished) grade next to building (HAG)	8.9 feet <input checked="" type="checkbox"/>	meters <input type="checkbox"/>
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	N/A feet <input checked="" type="checkbox"/>	meters <input type="checkbox"/>

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: B. GREGORY RIEETH License Number: 5228

Title: PSM/CFM

Company Name: STRAYER SURVEYING AND MAPPING, INC.

Address: 742 SHAMROCK BLVD

City: VENICE State: Florida ZIP Code: 34293

Signature: [Signature] Date: 06/21/2018 Telephone: (941) 497-1290 Ext.:

Place Seal Here
 822581-20-20

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)
 FILE # 15-07-32. THE OUTSIDE AC UNIT ON THE SOUTHWEST SIDE OF THE HOME WAS USED FOR SECTION C2. SECTION A5 WAS DERIVED FROM A HAND HELD G.P.S. UNIT (GPSTEST APP - NO CONVERSION). ELEVATIONS SHOWN IN SECTION "C" WERE CONVERTED FROM N.G.V.D. 1929 DATUM TO N.A.V.D. 1988 DATUM USING VERTCON CONVERSION PROGRAM. STRUCTURE HAS 4 FLOOD VENTS, ENGINEERED FOR 820 SQUARE FEET (TOTAL); CERTIFICATE VALID ONLY WITH ORIGINAL SIGNATURE & RAISED SEAL.

ELEVATION CERTIFICATE

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FOR INSURANCE COMPANY USE
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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 8-9 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 the 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 **BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

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494-GRANE ROAD

Policy Number:

City
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State
Florida

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34293

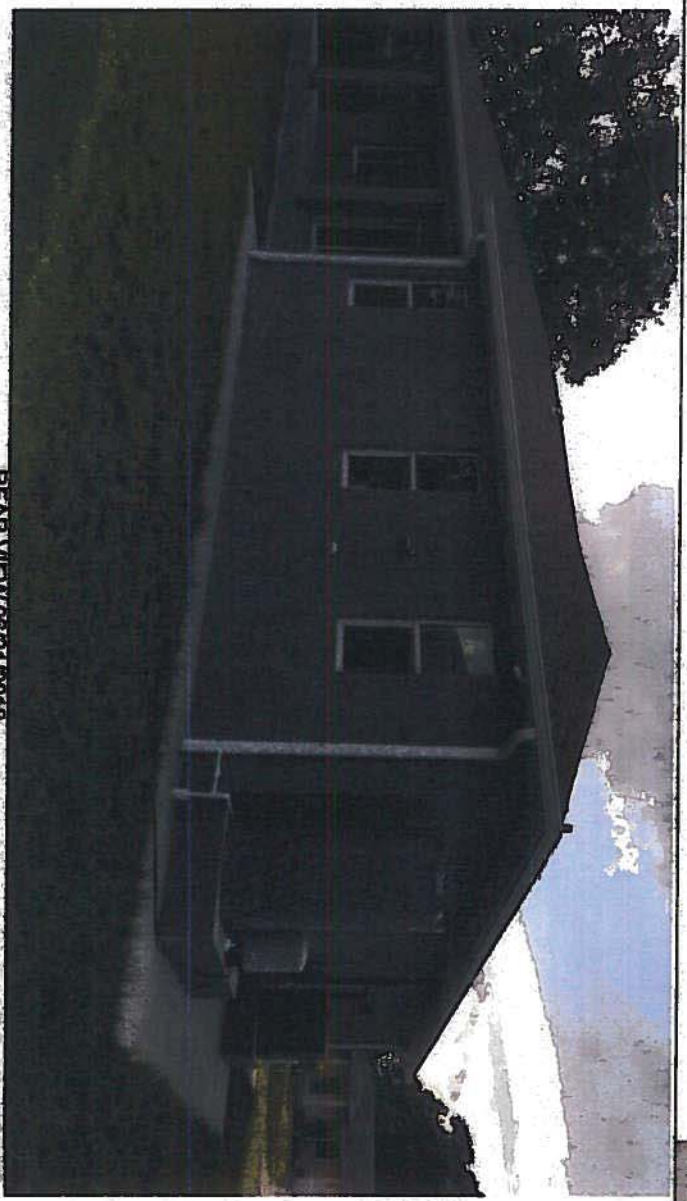
Company NAIC Number

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 06/21/2018

Photo One Caption Clear Photo One



REAR VIEW 06/21/2018

Photo Two Caption Clear Photo Two

ELEVATION CERTIFICATE BUILDING PHOTOGRAPHS

Continuation Page

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FDR INSURANCE COMPANY USE
Policy Number:

494 GRANE ROAD

City: VENICE State: Florida ZIP Code: 34293

Company NAIC Number

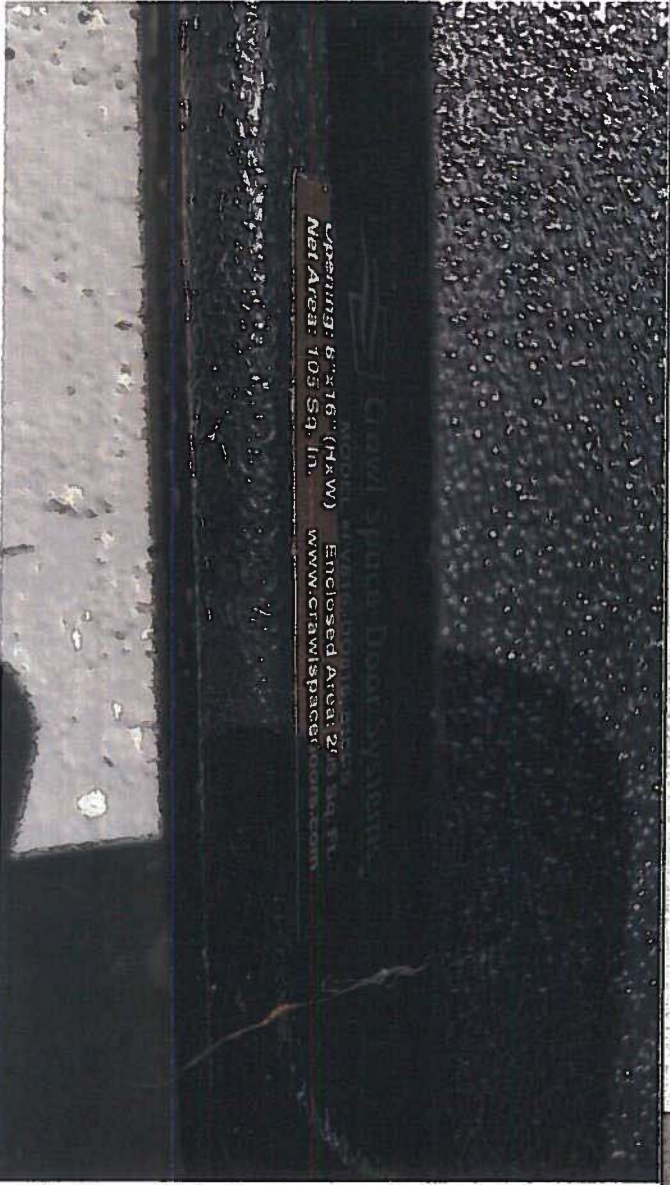
If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.



VENTS 06/21/2018

Photo Three Caption

Clear Photo Three



Opening: 6"x16" (HxW) Enclosed Area: 21"
Net Area: 105 Sq. In. www.crawispacer.com

VENTS 06/21/2018

Photo Four Caption

Clear Photo Four

Certification of Engineered Flood Openings

In accordance with NFIP, FEMA TB 1-08, and ASCE/SEI 24-05

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 NFIP "Flood Insurance Manual" (2011) 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. This certification follows the design requirements and specifications established in FEMA Technical Bulletin 1-08, "Openings in Foundation Walls and Walls of Enclosures Below Elevated Buildings in Special Flood Hazard Areas", and the ASCE Standard for "Flood Resistant Design and Construction" (ASCE/SEI 24-05). The actual vent opening measurements were determined and certified by Mr. Christopher Mark Loney, Virginia PE No. 029000. Calculations are based on the spreadsheet formulas, and "Review of certification of Engineered Flood Openings, dated January 16, 2012" prepared by Dr. Georg Reichard, Associate Professor of Building Construction, Virginia Tech.

Design Characteristics

Section 2.6.2.2 of ASCE 24 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 respected flow rate through the individual openings between louvers; 2) the flow rate through the main frame opening in case the louver is blown out during a flood event; and 3) the flow rate of water flowing through louver blades following hydraulic short tube theory. The ultimate 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.

- In absence of reliable data, the rates of rise and fall have been assumed with 5 feet/hour;
- The (maximum) difference between the exterior and interior floodwater levels has been assumed with 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.

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;
 - The bottom of each required opening shall be no more than 1ft above the adjacent ground level;
 - 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 analysis indicates rates of rise and fall greater than 5 ft/hr, the total enclosed area as given in Table 1 shall be reduced accordingly to account for the higher rates of rise and fall.

*)	Model	H x W [in]	A_o [in ²]	A_e [ft ²]
<input type="checkbox"/>	816CS	8 x 16	106	205
<input type="checkbox"/>	1220CS	12 x 20	237	500
<input type="checkbox"/>	1232CS	12 x 32	306	645
<input type="checkbox"/>	1616CS	16 x 16	184	395
<input type="checkbox"/>	1624CS	16 x 24	312	670
<input type="checkbox"/>	1632CS	16 x 32	408	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	852	1765


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

Certifying Design Professional

Name, Title **Steve A. Gecl, President, Gecl & Associates Engineers, Inc.**

Address **2950 N 12th Avenue, Pensacola, FL 32503**

License **Florida Professional Engineer, License No. 33658**

Signature  **10/30/12**

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

