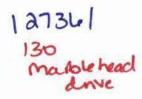
#### Horry County Government

Code Enforcement Department

www.horrycounty.org



Horry County Government & Justice Center 1301 Second Avenue / Suite 1D09 Conway, South Carolina 29526 Phone 843.915.5090 || Fax 843.915.6090



# MEMO OF REVIEW FOR CORRECTNESS AND COMPLETION

n accordance with this community's participation in the National Flood Insurance Program's Community Rating System, all FEMA Elevation Certificates must be correct and complete. The attached Certificate has some incorrect tems which are noted here.

| 22. Building Street Address (including Apt., Unit, Suite, and/or Bidg. No.) or P.O. Route and Box No.       Company NAIC Number         City       State       ZIP Code         33. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)       Horizontal Datum:       NAD 1927         M4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)  | SECTION A - PROPERTY INFORM  | IATION For Insurance Company Use:   |
|---|--|---|
| City       State       ZIP Code         33. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)  | A1. Building Owner's Name  | Policy Number   |
| 33. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)         44. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)   | A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box N  | lo. Company NAIC Number   |
| 44. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)  | City State ZIP Code  | V 22 N  |
| Statudoil.ongitude: Lat   | A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)   |   |
| b) No. of permanent flood openings in the carw space or<br>enclosure(s) walls within 1.0 foot above adjacent grade<br>0 Total net area of flood openings in A8.b       b) No. of permanent flood openings in the attached parage<br>walls within 1.0 foot above adjacent grade<br>0 Engineered flood openings?       b) No. of permanent flood openings in the attached parage<br>walls within 1.0 foot above adjacent grade<br>0 Engineered flood openings?         0 Engineered flood openings?       DYes       No.       No. of permanent flood openings in the attached parage<br>walls within 1.0 foot above adjacent grade<br>0 Engineered flood openings?       DYes       No.         0 Engineered flood openings?       DYes       No.       No. of permanent flood openings in the attached parage<br>walls within 1.0 foot above adjacent grade<br>0 Engineered flood openings?       DYes       No.         0 Engineered flood openings?       DYes       No.       DYes       No.       DYes       DYes         0 Engineered flood openings?       DYes       DYes<   |  | irance.   |
| a) Engineered flood openings?   Yes   No b) Engineered flood openings?   Yes   No SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION B1. NFIP Community Name & Community Number B2. County Name B3. State B4. Map/Panel Number B5. Suffix B6. FIRM Index B7. FIRM Panel B8. Flood Zone(s) B9. Base Flood Elevation(BFE) data or base flood depth entered in Item B9. [] FIS Profile [] FIS Profile [] FIRM [] Community Determined [] Other (Describe) [] Indicate devalion datum used for BFE in Item B9: [] NGVD 1929 [] NAVD 1988 [] Other/Source: [] Lindicate devalion datum used for BFE in Item B9: [] NGVD 1929 [] NAVD 1988 [] Other/Source: [] Designation Date [] Construction Drawings* [] Building levations are based on: [] Construction Drawings* [] Building levations are based on: [] Construction Drawings* [] Building levations are based on: [] Construction Drawings* [] Building is complete. 2. Elevation C-BUIL DING ELEVATION INFORMATION (SURVEY REQUIRED) SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) Subiding elevations are based on: [] Construction Drawings* [] Building user and the BFL, AR, AR/A, AR/AE, AR/AI-A30, AR/AH, AR/AO. Complete [] Immic 2:: An below according to the building diagram specified in Item A7. Benchmark Utilized [] Vertical Datum [] Indicate elevation datum used for the elevations in items a) through h) below. [] NGVD 1929 [] NAVD 1988 [] Other/Source: OMMENTS: Out A MARCHARA ARA [] Community Official: Out of the elevation sin items a) through h) below. [] NGVD 1929 [] NAVD 1988 [] Other/Source: Other/Source: O MONTENTS: Out A MARCHARA [] Community Official: [] Description data are an | b) No. of permanent flood openings in the crawl space or b) N<br>enclosure(s) walls within 1.0 foot above adjacent grade   | o. of permanent flood openings in the attached garage<br>ralls within 1.0 foot above adjacent grade |
| B1. NFIP Community Name & Community Number       B2. County Name       B3. State         B4. Map/Panel Number       B5. Suffix       B6. FIRM Index       B7. FIRM Panel       B8. Flood       B9. Base Flood Elevation(\$) (Zon AO, use base flood depth)         B4. Map/Panel Number       B5. Suffix       B6. FIRM Index       B7. FIRM Panel       B8. Flood       AO, use base flood depth)         B1. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.       AO, use base flood depth)       AO, use base flood depth)         B1. Indicate elevation datum used for BFE in Item B9:       ONFO Determined       Other (Describe)       Item S0.         B2. Indicate elevation datum used for BFE in Item B9:       INGVD 1929       NAVD 1988       Other/Source:       Item S0.         B2. State       Indicate elevation datum used for BFE in Item B9:       INGVD 1929       NAVD 1988       Other/Source:       Item S0.         B2. State       Indicate elevation datum used for BFE in Item B9:       ICENS       OPA       Item S0.       It   |  |   |
| B4. Map/Panel Number       B5. Suffix       B6. FIRM Index<br>Date       B7. FIRM Panel<br>Effective/Revised Date       B8. Flood<br>Zone(s)       B9. Base Flood Elevation(s) (Zon<br>A0, use base flood depth)         0. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.       B1. FIS Profile       FIRM       Community Determined       Other (Describe)         1. Indicate elevation datum used for BFE in Item B9:       INGVD 1929       INAVD 1988       Other/Source:       IVes         2. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)?       IVes       IVes         SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)         SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)         Section Certificate will be required when construction of the building is complete.         Vertical Datum         Indicate elevation datum used for the elevations in items a) through h) below.         NGVD 1929         NAVAD 1988         Other/Source:         Other/Source:         Other/Source:         Other/Source:         Section Certificate will be required when construction of the building is complete.         Elevation Certificate will be required when construction and the max.  | SECTION B - FLOOD INSURANCE RATE MAP (FIR  | RM) INFORMATION   |
| Date       Date       Effective/Revised Date       Zone(s)       AO, use base flood depth)         Date       Date       Effective/Revised Date       Zone(s)       AO, use base flood depth)         D. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.       AD, use base flood depth)         D. Indicate levation datum used for BFE in Item B9:       ON ONLY DETERMINED       Indicate elevation datum used for BFE in Item B9:       NGVD 1929       NAVD 1988       Other/Source:       Image: Community Determined       Other (Describe)       Image: Community Determined       Image: Community Determined       Other (Describe)       Image: Community Determined   |  |   |
| FIS Profile   FIRM   Community Determined   Other (Describe)   1. Indicate elevation datum used for BFE in Item 89:   NGVD 1929   NAVD 1988   Other/Source:   2. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)?   Yes   Designation Date   CBRS   OPA   SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)   Building elevations are based on:   Construction Drawings*   Building Under Construction*   Flinshed   *A new Elevation Certificate will be required when construction of the building is complete   2. 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+ below according to the building diagram specified in Item A7.   Benchmark Utilized   | by wept and thinks bot both the most   |   |
| Building elevations are based on:       Construction Drawings*       Building Under Construction*       Finished         *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.         Benchmark Utilized       Vertical Datum         Indicate elevation datum used for the elevations in items a) through h) below.       NGVD 1929       NAVD 1988       Other/Source:         OMMENTS:       Put       NIA       MA       AP         eate of Review:       1-224-222       Community Official:       Durundly Official:       Durundly Official:  | 1. Indicate elevation datum used for BFE in Item B9:   | Other/Source:   |
| Building develops are based on.       □ construction of the building is complete.         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.         Benchmark Utilized       Vertical Datum         Indicate elevation datum used for the elevations in items a) through h) below.       □ NGVD 1929       □ NAVD 1988       □ Other/Source:         OMMENTS:       PLF       NIA       NIA       API         ate of Review:       1-24-22       Community Official       Output: Official   | SECTION C - BUILDING ELEVATION INFORMATION   | (SURVEY REQUIRED)   |
| 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. Benchmark Utilized   | nstruction   | er Construction*  |
| Indicate elevation datum used for the elevations in items a) through h) below. NGVD 1929 NAVD 1988 Other/Source:  | <ol> <li>Elevations – Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/A<br/>Items C2.a-h below according to the building diagram specified in Item A7.</li> </ol> | E, AR/A1-A30, AR/AH, AR/AO. Complete  |
| OMMENTS: put NA in Ag-<br>Tate of Review: 1-24-22 Community Officiale David CFM   | Benchmark Utilized Verical Batom   |   |
| ate of Review: 1-24-22 Community Official author CFM  | Indicate elevation datum used for the elevations in items a) through h) below.  NGVD 1929  | NAVD 1988 Other/Source:   |
| ate of Review: 1-24-22 Community Officiale Jaulto CFM   |  |   |
|   | OMMENTS: OUT NIA in A9.  |   |
|   |  |   |
|   |  |   |
|   | Date of Review: 1-24-22 Community Official   | millo CFM   |
|   |  |   |

# 127361 1-20-2021 RMLEU: 22

### U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program

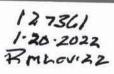
1.0

.

OMB No. 1660-0008 Expiration Date: November 30, 2018

ELEVATION CERTIFICATE Important: Follow the instructions on pages 1–9.

| A1. Building Owner  | SECTION A - PROP  | PERTY INFORM   | NATION  |  | FOR INSUF                          | RANCE COMPANY US  |
|---|---|--|---|--|------------------------------------|---|
| CK CARR BROTHE  |   |  |   |  | Policy Num                         | A CONTRACTOR OF A CONTRACT OF |
| A2. Building Street /<br>Box No.<br>130 MARBLEHEAD  | Address (including Apt., Un<br>DRIVE  | iit, Suite, and/or   | Bldg. No.) o  | P.O. Route and                               | Company N                          | AIC Number:   |
| City  |   |  | State   |  | ZIP Code                           | and the second second   |
| LITTLE RIVER  |   |  | South Ca  |  | 29566                              |   |
| A3. Property Descri<br>UNIT 19 CAPE COD   | otion (Lot and Block Number<br>COTTAGE @ MARKER 3   | ers, Tax Parcel<br>850   | Number, Leg   | al Description, et                           | c.)                                |   |
| A4. Building Use (e.  | g., Residential, Non-Reside   | ential, Addition,  | Accessory, e  | tc.) RESIDEN                                 | TIAL                               |   |
| A5. Latitude/Longitu  | de: Lat. 33D51'11.456"  | Long. 78   | D39'24 314"   | Horizonta                                    | Datum: NAD 1                       | 927 🗙 NAD 1983  |
| A6. Attach at least 2   | photographs of the buildin  | if the Certifica   | ate is being u  | sed to obtain floor                          | d insurance.                       | 80.74   |
| A7. Building Diagram  |   |  | 5   |  |                                    |   |
| A8. For a building w  | th a crawlspace or enclosu  | ure(s):  |   |  |                                    |   |
|   | ge of crawlspace or enclos  |  | 1   | 144.00 S0 ft                                 |                                    |   |
|   | rmanent flood openings in   |  |   |  | about adiacost acc                 | ida 6   |
|   |   |  |   |  | above aujacent gra                 |   |
|   | a of flood openings in A8.b   |  | 230.00 sq in  |  |                                    |   |
| d) Engineered t   | ood openings? X Yes   | No No  |   |  |                                    |   |
| A9. For a building wi   | h an attached garage:   |  |   |  |                                    |   |
| a) Square foota   | ge of attached garage   |  | sq ft   |  |                                    |   |
|   | rmanent flood openings in   |  |   | 0 foot above adi                             | acent grade                        |   |
|   |   |  |   | 4 ID   |                                    |   |
|   | of flood openings in A9.b   | 76.22  | sq  | 10   |                                    |   |
| d) Engineered fi  | ood openings?  Ves  | No No  |   |  |                                    |   |
|   | SECTION B - FL  |  | CIPTURE I   |  | ORMATION                           |   |
| B1. NFIP Community  | V Name & Community Num<br>50104   | iber   | B2. County I<br>HORRY CO  |  |                                    | B3. State<br>South Carolina   |
|   | and the second se | ex B7. FIR   | M Panel   | B8. Flood                                    | B9. Base Flood E                   |   |
| HORRY COUNTY 4  | B5. Suffix B6. FIRM Inde<br>Date  | Effe   | ctive/  | Zone(s)                                      |                                    | levation(s)<br>e Base Flood Depth)  |
| HORRY COUNTY 4<br>4. Map/Panel<br>Number  |   | Effe   | ctive/<br>ised Date   | Zone(s)<br>AE                                |                                    |   |
| HORRY COUNTY 4<br>4. Map/Panel<br>Number<br>5051C0606K  | Date  | Effe<br>Rev<br>12-16-2   | ctive/<br>ised Date<br>021  | AE   | (Zone AO, usi                      |   |
| HORRY COUNTY 4<br>4. Map/Panel<br>Number<br>5051C0606K<br>B10. Indicate the so  | Date<br>K 12-16-2021  | Vation (BFE) da  | ctive/<br>ised Date<br>021<br>ita or base flo                               | AE<br>nod depth entered                      | (Zone AO, usi                      |   |
| HORRY COUNTY 4<br>4. Map/Panel<br>Number<br>5051C0606K<br>B10. Indicate the so<br>□ FIS Profile                         | K 12-16-2021<br>urce of the Base Flood Ele  | vation (BFE) da  | ctive/<br>ised Date<br>021<br>ita or base flo<br>] Other/Sour               | AE<br>bod depth entered                      | (Zone AO, usi                      |   |
| HORRY COUNTY 4<br>4. Map/Panel<br>Number<br>5051C0606K<br>B10. Indicate the so<br>FIS Profile<br>B11. Indicate elevat   | K 12-16-2021<br>urce of the Base Flood Ele  | vation (BFE) da<br>Determined [<br>Item B9: ] NO                   | ctive/<br>ised Date<br>021<br>ita or base fic<br>] Other/Soul<br>GVD 1929 [ | AE<br>bod depth entered<br>rce:<br>NAVD 1988 | (Zone AO, usi<br>10<br>in Item B9: | e Base Flood Depth)   |
| HORRY COUNTY 4<br>4. Map/Panel<br>Number<br>5051C0606K<br>B10. Indicate the so<br>□ FIS Profile<br>B11. Indicate elevat | Date 12-16-2021 Urce of the Base Flood Ele FIRM Community on datum used for BFE in located in a Coastal Barrier   | vation (BFE) da<br>Determined [<br>Item B9: ] N(<br>r Resources Sy | ctive/<br>ised Date<br>021<br>ita or base fic<br>] Other/Soul<br>GVD 1929 [ | AE<br>bod depth entered<br>rce:<br>NAVD 1988 | (Zone AO, usi<br>10<br>in Item B9: | e Base Flood Depth)   |



|  | the corresponding information from  | Section A   | 1   | e: November 30, 2  |  |
|--|---|---|---|--|--|
| uilding Street Address (including Apt  | ., Unit, Suite, and/or Bldg. No.) or P.O  | Route and Box No.   | FOR INSURANCE COMPANY U<br>Policy Number: |  |  |
| 30 MARBLEHEAD DRIVE  |   | Noule and box No.   | Folicy Number                             | 6  |  |
| ity  | State   | ZIP Code  | Company NAI                               | C Number   |  |
| TTLE RIVER   | South Carolina  | 29566   |   |  |  |
| SECTION  | C - BUILDING ELEVATION INFOR  | MATION (SURVEY F  | REQUIRED)                                 |  |  |
| C1. Building elevations are based or   | n: Construction Drawings*   | Building Under Const  |   | nished Constructio   |  |
|  | be required when construction of the  |   |   | isned Constructio  |  |
| C2. Elevations – Zones A1–A30, AE<br>Complete Items C2.a–h below a   | , AH, A (with BFE), VE, V1–V30, V (w<br>ccording to the building diagram spec   | ith BEE) AR AR/A AR   | R/AE, AR/A1-A30                           | ), AR/AH, AR/AO.<br>er meters                                  |  |
| Benchmark Utilized: SC VRS   |   | tum: NAVD 1988  |   |  |  |
| Indicate elevation datum used fo   | r the elevations in items a) through h)   | below.  |   | -  |  |
|  | D 1988 Other/Source:  |   |   |  |  |
|  | ns must be the same as that used for  | the BFE.  |   |  |  |
| 2) Top of bottom floor (includio   |   |   | The same second to a local second         | measurement use  |  |
|  | basement, crawlspace, or enclosure  | floor)  | 9.5 × fee                                 | t i meters   |  |
| <ul> <li>b) Top of the next higher floor</li> </ul>  |   |   | 19.9 🗙 fee                                | t meters   |  |
| <ul> <li>c) Bottom of the lowest horizont</li> </ul>   | al structural member (V Zones only)   |   | N/A fee                                   | t 🗌 meters   |  |
| <ul> <li>d) Attached garage (top of slab)</li> </ul>   | 1   |   | N/A X fee                                 | t meters   |  |
| <ul> <li>e) Lowest elevation of machiner<br/>(Describe type of equipment)</li> </ul>   | y or equipment servicing the building and location in Comments)   |   | 11.3 X fee                                | t 🗌 meters   |  |
| f) Lowest adjacent (finished) gra  | ade next to building (LAG)  |   | 8.7 🗙 fee                                 | t meters   |  |
| g) Highest adjacent (finished) gr  | rade next to building (HAG)   |   | 9.1 🔀 fee                                 | t 🗆 meters   |  |
|  | est elevation of deck or stairs, including  | ng  | N/A 🔀 fee                                 | t 🗆 meters   |  |
| 1.2  | D - SURVEYOR, ENGINEER, OR  | APCHITECT CEPTI   |   |  |  |
|  |   |   |   |  |  |
| his certification is to be signed and s<br>certify that the information on this Co<br>tatement may be punishable by fine   | sealed by a land surveyor, engineer, o<br>ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surve  | Section 1001  | lable. I understan                        | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Co<br>tatement may be punishable by fine<br>lere latitude and longitude in Section   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surve  | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | lable. I understan                        | levation informatio<br>d that any false<br>here if attachments |  |
| his certification is to be signed and s<br>certify that the information on this Co<br>tatement may be punishable by fine   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surver<br>License Number   | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | lable. I understan                        | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Ce<br>tatement may be punishable by fine<br>lere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surve  | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | lable. I understan                        | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Ce<br>tatement may be punishable by fine<br>lere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>itle   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surver<br>License Number   | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | lable. I understan                        | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this C<br>atement may be punishable by fine<br>lere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>tle<br>LS  | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surver<br>License Number   | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | lable. I understan                        | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Co<br>atement may be punishable by fine<br>/ere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>tte<br>LS<br>ompany Name  | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surver<br>License Number   | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | lable. I understan                        | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Ce<br>atement may be punishable by fine<br>/ere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>ttle<br>LS<br>ompany Name<br>ITE SURVEYING, LLC<br>ddress   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surver<br>License Number   | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | Check h                                   | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Ce<br>atement may be punishable by fine<br>/ere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>ttle<br>LS<br>ompany Name<br>ITE SURVEYING, LLC<br>ddress   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surver<br>License Number   | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | Check h                                   | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Co<br>atement may be punishable by fine<br>/ere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>ttle<br>LS<br>ompany Name<br>ITE SURVEYING, LLC<br>ddress<br>11 WHITE OAK FOREST PLACE<br>ity   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>in A provided by a licensed land survey<br>License Number<br>21431<br>State  | interpret the data avail<br>Section 1001.<br>Jor? Xes No  | lable. I understan                        | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Co<br>atement may be punishable by fine<br>/ere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>ttle<br>LS<br>ompany Name<br>ITE SURVEYING, LLC<br>ddress<br>11 WHITE OAK FOREST PLACE<br>ity   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>n A provided by a licensed land surver<br>License Number<br>21431  | interpret the data avail<br>Section 1001.<br>/or? ⊠Yes □No  | Check h                                   | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this C<br>latement may be punishable by fine<br>/ere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>itle<br>LS<br>ompany Name<br>ITE SURVEYING, LLC<br>ddress<br>11 WHITE OAK FOREST PLACE<br>ity<br>ONWAY  | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>in A provided by a licensed land survey<br>License Number<br>21431<br>State  | interpret the data avail<br>Section 1001.<br>/or? ⊠Yes □No<br>ZIP Code  | Check h                                   | d that any false   |  |
| his certification is to be signed and s<br>certify that the information on this Ce<br>tatement may be punishable by fine<br>lere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>itle<br>LS<br>ompany Name<br>ITE SURVEYING, LLC<br>ddress<br>11 WHITE OAK FOREST PLACE<br>ity<br>ONWAY   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>in A provided by a licensed land survey<br>License Number<br>21431<br>State<br>South Carolina<br>Date<br>01-05-2022  | Interpret the data avail<br>Section 1001.<br>Jor? ⊠Yes □No<br>ZIP Code<br>29527<br>Telephone<br>(843) 397-8000  | Ext.                                      | d that any false<br>here if attachments                        |  |
| his certification is to be signed and s<br>certify that the information on this Cr<br>tatement may be punishable by fine<br>Vere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>itle<br>LS<br>ompany Name<br>ITE SURVEYING, LLC<br>ddress<br>11 WHITE OAK FOREST PLACE<br>ity<br>ONWAY<br>ignature   | ertificate represents my best efforts to<br>or imprisonment under 18 U.S. Code,<br>in A provided by a licensed land survey<br>License Number<br>21431<br>State<br>South Carolina<br>Date<br>01-05-2022<br>ate and all attachments for (1) commun                | Interpret the data avail<br>Section 1001.<br>(or? ⊠Yes □No<br>ZIP Code<br>29527<br>Telephone<br>(843) 397-8000<br>ity official, (2) insurance   | Ext.                                      | d that any false<br>here if attachments                        |  |
| his certification is to be signed and s<br>certify that the information on this Cratement may be punishable by fine<br>/ere latitude and longitude in Section<br>ertifier's Name<br>ACQUES J. BONNETT<br>tte<br>LS<br>ompany Name<br>ITE SURVEYING, LLC<br>ddress<br>11 WHITE OAK FOREST PLACE<br>ity<br>ONWAY<br>ignature<br>opy all pages of this Elevation Certific<br>comments (including type of equipme<br>DWEST MACHINERY IS THE ELEV<br>ENT SEE ATTACHED SHEET. THE<br>ICHES OF OPENING TO MATCH E | State<br>South Carolina<br>Date<br>01-05-2022<br>ate and all attachments for (1) commun<br>And all attachments for (1) commun<br>ATOR MECHANICAL PLATFORM. If<br>NET ARE OF OPENINGS IS 630 SC<br>NGINEERED RELIEF AREA OF OPE<br>ON FOUNDATION AND FRAMING (2) | Interpret the data avail<br>Section 1001.<br>(or? ⊠ Yes □ No<br>ZIP Code<br>29527<br>Telephone<br>(843) 397-8000<br>ity official, (2) insurance<br>e)<br>ELOOD VENTS ARE E<br>NUARE INCHES. THE<br>ENINGS. THIS UNIT IS | Ext.                                      | and (3) building ow<br>R 205 SQ FT PEFS<br>ME PUT SQUA         |  |

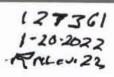
ż

127361 1-20-2022 BMI 00:22 10.22

| ELEVATION CERTIFICATE   | and the second sec |  |   | Expiration Date:  |                                  |
|---|--|--|---|---|----------------------------------|
| MPORTANT: In these spaces, copy the correspondence  |  |  |   | FOR INSURAN   | ICE COMPANY US                   |
| Building Street Address (including Apt., Unit, Suite,<br>30 MARBLEHEAD DRIVE  | and/or Bidg. No.) o  | or P.O. Route and B  | ox No.  | Policy Number   |                                  |
| City<br>LITTLE RIVER  | State<br>South Carolina  | ZIP Code<br>29566  |   | Company NAIC  | Number                           |
| SECTION E – BUILDING<br>FOR ZO  | ELEVATION INF  | ORMATION (SUR  | VEY NOT   | REQUIRED)   |                                  |
| For Zones AO and A (without BFE), complete Items<br>complete Sections A, B,and C. For Items E1–E4, us<br>enter meters.  | E1-E5. If the Cert   | ificate is intended to   | support a   | LOMA or LOMF<br>ment used. In Pu  | R-F request,<br>lerto Rico only, |
| <ol> <li>Provide elevation information for the following a<br/>the highest adjacent grade (HAG) and the lowe<br/>a) Top of bottom floor (including basement,</li> </ol>                       | and check the appr<br>est adjacent grade (   | (LAG).   |   | _   |                                  |
| crawlspace, or enclosure) is<br>b) Top of bottom floor (including basement,   |  | [] feet  | meters  | above or  | below the HAG                    |
| crawlspace, or enclosure) is  |  | [] feet  | meters  | above or  | below the LAG                    |
| <ol> <li>For Building Diagrams 6–9 with permanent floo<br/>the next higher floor (elevation C2.b in</li> </ol>  | od openings provide  | ed in Section A Item   | s 8 and/or 9  | e (see pages 1-   | 2 of Instructions),              |
| 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                    |
| <ol> <li>Top of platform of machinery and/or equipment<br/>servicing the building is</li> </ol>   | t  | feet   | meters  | above or  | below the HAG                    |
| 5. Zone AO only: If no flood depth number is avai   | lable is the top of t  | the hettern fleer elev   | unterd in acc   | 2 121 722   |                                  |
| floodplain management ordinance? Yes SECTION F – PROPERTY C   |  | nown. The local off  | icial must c  | ertify this inform  |                                  |
| SECTION F – PROPERTY O<br>The property owner or owner's authorized represen<br>community-issued BFE) or Zone AO must sign here<br>Property Owner or Owner's Authorized Representation         | NO Unkr  | nown. The local off<br>ER'S REPRESENT<br>les Sections A, B, and<br>n Sections A, B, and    | icial must c<br>ATIVE) CE<br>and E for Zor<br>d E are corr        | ertify this inform<br><b>RTIFICATION</b><br>the A (without a lect to the best of the be   | FEMA-issued or of my knowledge.  |
| SECTION F – PROPERTY O<br>The property owner or owner's authorized represent<br>community-issued BFE) or Zone AO must sign here<br>Property Owner or Owner's Authorized Representation        | NO Unkr  | nown. The local off<br>ER'S REPRESENT.<br>tes Sections A. B. ar                            | icial must c<br>ATIVE) CE   | ertify this inform<br><b>RTIFICATION</b><br>the A (without a lect to the best of the be   | FEMA-issued or                   |
|   | NO Unkr  | nown. The local off<br>ER'S REPRESENT<br>les Sections A, B, and<br>n Sections A, B, and    | icial must c<br>ATIVE) CE<br>Ind E for Zor<br>d E are corr<br>Sta | ertify this inform<br><b>RTIFICATION</b><br>the A (without a lect to the best of the be   | FEMA-issued or of my knowledge.  |
| SECTION F – PROPERTY O<br>The property owner or owner's authorized represen<br>community-issued BFE) or Zone AO must sign here<br>Property Owner or Owner's Authorized Representat<br>Address | No Unkr  | er's represent.<br>The local off<br>Res Sections A, B, and<br>n Sections A, B, and<br>City | icial must c<br>ATIVE) CE<br>Ind E for Zor<br>d E are corr<br>Sta | ertify this inform<br><b>RTIFICATION</b><br>the A (without a lect to the best of<br>the best of the b | FEMA-issued or of my knowledge.  |

÷

X.



| ELEVATION CERTIFICATE  | OMB No. 1660-0008<br>Expiration Date: November 30, 201<br>FOR INSURANCE COMPANY US |                            |   |
|--|--|----------------------------|---|
| MPORTANT: In these spaces, copy  |  |                            |   |
| Building Street Address (including Apr<br>130 MARBLEHEAD DRIVE   | t., Unit, Suite, and/or Bldg. No.) or P  | P.O. Route and Box No.     | Policy Number:  |
|  | State<br>South Carolina  | ZIP Code<br>29566          | Company NAIC Number   |
|  | SECTION G - COMMUNITY INFO   | ORMATION (OPTIONAL         | )   |
| The local official who is authorized by<br>Sections A, B, C (or E), and G of this<br>used in Items G8–G10. In Puerto Ric | Elevation Certificate. Complete the  |                            | anagement ordinance can complete<br>gn below. Check the measurement |
| engineer, or architect who i<br>data in the Comments area  | below.)  | ion information. (Indicate | the source and date of the elevation                                |
| or Zone AO.  | eted Section E for a building located<br>Items G4–G10) is provided for comm        |                            | MA-issued or community-issued BFE)                                  |
| G3. The following information (I   | items G4–G10) is provided for comin  | nunity lioodplain manage   | ment purposes.  |
| G4. Permit Number  | G5. Date Permit Issued   | G6.                        | Date Certificate of<br>Compliance/Occupancy Issued                  |
| G7. This permit has been issued for  | New Construction   | ubstantial Improvement     |   |
| <ol> <li>Elevation of as-built lowest floor<br/>of the building:</li> </ol>  | r (including basement)   | fe                         | et 🗌 meters Datum   |
| 39. BFE or (in Zone AO) depth of fl  | ooding at the building site:   |                            | et 🗌 meters Datum   |
| G10. Community's design flood eleva  |  | Title                      | eet 🗌 meters Datum  |
| Local Official's Name  |  | The                        |   |
| Community Name   |  | Telephone                  |   |
| Signature  |  | Date                       |   |
| Comments (including type of equipm   | ent and location, per C2(e), if applic   | cable)                     |   |
|  |  |                            |   |
|  |  |                            |   |
|  |  |                            |   |
|  |  |                            |   |
|  |  |                            |   |
|  |  |                            |   |
|  |  |                            | Check here if attachmer   |
|  |  |                            |   |

.

127361 1-20-2022 RmLeui22

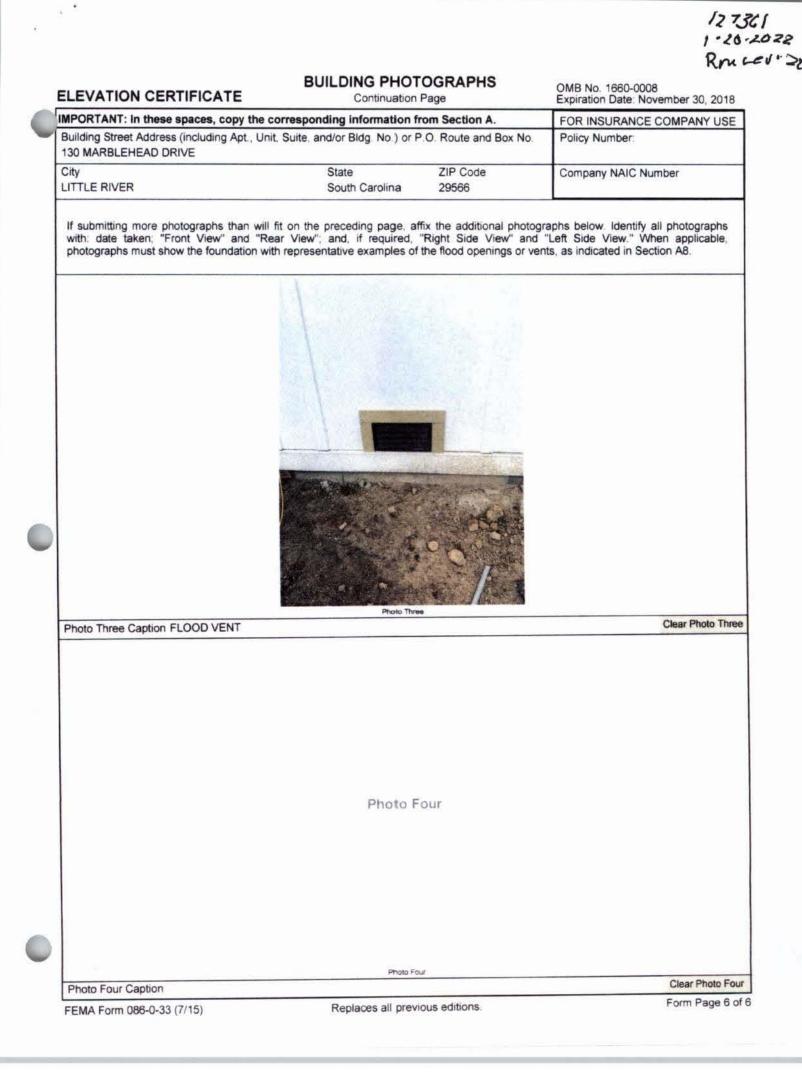


۰. **\*** 

ï

## BUILDING PHOTOGRAPHS

| ELEVATION CERTIFICATE  |  |  | OMB No. 1660-0008<br>Expiration Date: November 30, 2018 |
|--|--|--|---|
| IMPORTANT: In these spaces, copy the co  |  |  | FOR INSURANCE COMPANY USE                               |
| Building Street Address (including Apt., Unit<br>130 MARBLEHEAD DRIVE  |  |  | Policy Number:  |
| City<br>LITTLE RIVER   | State<br>South Carolina                                    | ZIP Code<br>29566                                      | Company NAIC Number                                     |
| If using the Elevation Certificate to obta<br>instructions for Item A6. Identify all photogr<br>"Left Side View." When applicable, photo-<br>vents, as indicated in Section A8. If submitt | aphs with date taken; "Front<br>graphs must show the found | View" and "Rear View"; a<br>dation with representative | and, if required, "Right Side View" and                 |
|  | <image/>   |  |   |
| Photo One Caption FRONT  |  |  | Clear Photo One   |
|  |  |  |   |
|  | <b>Bil</b>   |  |   |
| Photo Two Caption BACK   | Photo Two  |  | Clear Photo Two   |



127361 1-20-2022 RMLEU22

# 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 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 <u>net area</u> of engineered openings (A<sub>o</sub>) for a given <u>enclosed area</u> (A<sub>e</sub>). 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<sub>e</sub>) 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<sub>o</sub>) 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 subject to flooding;

| •) | Model  | H x W<br>[in] | A <sub>o</sub><br>[in <sup>2</sup> ] | Ae<br>[ft <sup>2</sup> ] |
|----|--------|---------------|--------------------------------------|--------------------------|
| 2  | 816CS  | 8 x 16        | 105                                  | 205                      |
|    | 1220CS | 12 x 20       | 235                                  | 500                      |
|    | 1232CS | 12 x 32       | 305                                  | 645                      |
|    | 1616CS | 16 x 16       | 180                                  | 395                      |
|    | 1624CS | 16 x 24       | 310                                  | 670                      |
|    | 1632C5 | 16 x 32       | 405                                  | 835                      |
|    | 2032CS | 20 x 32       | 630                                  | 1240                     |
|    | 2424CS | 24 x 24       | 570                                  | 1230                     |
|    | 2436CS | 24 x 36       | 850                                  | 1765                     |

- Table 1 Maximum total <u>enclosed</u> <u>area</u> (A<sub>e</sub>) that can be serviced by each individual model based on the given <u>net area</u> of engineered openings (A<sub>o</sub>)
- 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.

| Certifyi  | ng Design Professional           | TH CAROLINE           |
|-----------|----------------------------------|-----------------------|
| Name      | Frederick Allen House            | Title President HOUSE |
| Company   | House Engineering P.C.           | P.C.                  |
| Address   | PO Box 466, Kitty Hawk, NC 27949 | No. 3900              |
| License   | South Carolina                   | License No. 26841     |
| Signature | Rult allow P.E.                  | Date: 11/17/2017      |

### 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

Spring 2012

Ver. 2.0