

# TOWN OF KIAWAH ISLAND V-ZONE AND LIMWA DESIGN CERTIFICATE

Owner Name \_\_\_\_\_ Policy Number (Insurance Use) \_\_\_\_\_  
Building Address \_\_\_\_\_ TMS \_\_\_\_\_  
Permit No \_\_\_\_\_

## SECTION I: Flood Insurance Rate Map (FIRM) Information

Community No. \_\_\_\_\_ Panel No. \_\_\_\_\_ Suffix \_\_\_\_\_ FIRM Date \_\_\_\_\_ FIRM Zone(s) \_\_\_\_\_

## SECTION II: Elevation Information Used for Design

**Note: This section documents the elevations/depths used or specified in the design – it does not document surveyed elevations and is not equivalent to the as-built elevations required to be submitted during and after construction.**

1. FIRM Base Flood Elevation (BFE)..... \_\_\_\_\_ feet\*
2. Community's Design Flood Elevation (DFE)..... \_\_\_\_\_ feet\*
3. Elevation of the Bottom of Lowest Horizontal Structural Member..... \_\_\_\_\_ feet\*
4. Elevation of Lowest Adjacent Grade..... \_\_\_\_\_ feet\*
5. Depth of Anticipated Scour/Erosion used for Foundation Design..... \_\_\_\_\_ feet\*
6. Embedment Depth of Pilings or Foundation Below Lowest Adjacent Grade..... \_\_\_\_\_ feet\*

\*Indicate elevation datum used in 1-4:  NGVD29  NAVD88  Other \_\_\_\_\_

## SECTION III: LIMWA & V-Zone Design Certification Statement

I certify that: (1) I have developed or reviewed the structural design, plans, and specifications for construction of the above-referenced building and (2) that the design and methods of construction specified to be used are in accordance with accepted engineering standards of practice\*\* for meeting the following provisions:

- The bottom of the lowest horizontal structural member of the lowest floor (excluding piles and columns) is elevated to or above the BFE to include the Town's current freeboard requirements.
- The pile and column foundation and structure attached thereto are anchored to resist flotation, collapse, and lateral movement because of the wind and water loads acting simultaneously on all building components. Water loading values used are those associated with the base flood. \* Wind loading values are in accordance with applicable sections of IBC, ASCE 7.
- The potential for scouring and erosion at the foundation has been anticipated for conditions associated with the base flood, including wave action.

## SECTION IV: Breakaway Wall Design Certification Statement

**Note: This section must be certified by a registered engineer or architect. Breakaway walls are designed to fail at \_\_\_\_\_ psf. CMU foundation walls shall be constructed in accordance with applicable sections of ASCE 24-14.**

I certify that: (1) I have developed or reviewed the structural design, plans, and specifications for construction of breakaway walls to be constructed under the above-referenced building and (2) that the design and methods of construction specified to be used are in accordance with accepted engineering standards of practice\*\* for meeting the following provisions:

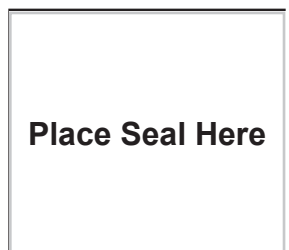
- Breakaway wall collapse shall result from a water load less than that which would occur during the base flood\*\*\*.
- The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage because of wind and water loads acting simultaneously on all building components (see section III).
- Hydrostatic venting is incorporated into the design of the breakaway foundation wall system utilizing engineered flood openings and quantity is sufficient to provide 1 square inch of net opening per square feet of floor area to be wet proofed.

## SECTION V: Certification and Seal

This certification is to be signed and sealed by a registered professional engineer or architect authorized by law to certify structural designs. I certify the V Zone Design Certification Statement (Section III) and \_\_\_\_\_ the Breakaway Wall Design Certification Statement (Section IV, check if applicable).

Certifier's Name \_\_\_\_\_ License Number \_\_\_\_\_  
Title \_\_\_\_\_ Company \_\_\_\_\_  
Address \_\_\_\_\_

\_\_\_\_\_  
Signature Date



# TOWN OF KIAWAH ISLAND BREAKAWAY WALL AS-BUILT CERTIFICATE

Owner Name \_\_\_\_\_ Policy Number (Insurance Use) \_\_\_\_\_  
Building Address \_\_\_\_\_ TMP \_\_\_\_\_  
Permit No \_\_\_\_\_

## SECTION I: Flood Insurance Rate Map (FIRM) Information

Community No. \_\_\_\_\_ Panel No. \_\_\_\_\_ Suffix \_\_\_\_\_ FIRM Date \_\_\_\_\_ FIRM Zone(s) \_\_\_\_\_

## SECTION II: Elevation Information Retrieved from Finished Construction Elevation Certificate

1. FIRM Base Flood Elevation (BFE)..... \_\_\_\_\_ feet\*
2. Community's Design Flood Elevation (DFE)..... \_\_\_\_\_ feet\*
3. Elevation of the Bottom of Lowest Horizontal Structural Member..... \_\_\_\_\_ feet\*
4. Elevation of Lowest Adjacent Grade..... \_\_\_\_\_ feet\*

\*Indicate elevation datum used in 1-4:  NGVD29  NAVD88  Other \_\_\_\_\_

## SECTION III: Breakaway Wall Design Certification Statement

**Note: This section must be certified by a registered engineer or architect. Breakaway walls are designed to fail at \_\_\_\_\_ psf. CMU foundation walls shall be constructed in accordance with applicable sections of ASCE 24-14.**

I certify that: (1) I have developed or reviewed the structural design, plans, and specifications for construction of breakaway walls to be constructed under the above-referenced building and (2) that the design and methods of construction specified to be used are in accordance with accepted engineering standards of practice\*\* for meeting the following provisions:

- Breakaway wall collapse shall result from a water load less than that which would occur during the base flood\*\*\*.
- The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components.
- Engineered hydrostatic venting has been installed in the breakaway wall system. The hydrostatic venting conforms to the required 1 square inch of net opening per square foot of floor area to be wet proofed.

Square feet of floor area \_\_\_\_\_ Net square inch of opening for each Hydrostatic vent \_\_\_\_\_

Total number of hydrostatic vents installed \_\_\_\_\_

## SECTION IV: Certification and Seal

This certification is to be signed and sealed by a registered professional engineer or architect authorized by law to certify structural designs. I certify the Breakaway Wall Design Certification Statement (Section III, check if applicable).

Certifier's Name \_\_\_\_\_ License Number \_\_\_\_\_  
Title \_\_\_\_\_ Company \_\_\_\_\_  
Address \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

