



# V-Zone Construction Certification

(For New Construction & Substantially Improved/Damaged Structures)

## Section 1: Structure Location and Ownership Information

Structure Owner: \_\_\_\_\_ Local Building Permit #: \_\_\_\_\_

Structure Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

County: \_\_\_\_\_ Latitude (optional): \_\_\_\_\_ Longitude (optional): \_\_\_\_\_

Structure Description (ie Residence, Pool, Shed): \_\_\_\_\_

Structure Location on Property: \_\_\_\_\_

Legal Description: \_\_\_\_\_

Coastal Barriers Resource System (CBRS) Area/OPA: No  Yes  Designation date: \_\_\_\_\_

New Structure  Improvement/Repair (to existing Structure)  Date of Original Construction: \_\_\_\_\_

## Section 2: Flood Insurance Rate Map (FIRM) Data

Note: This information is NOT a substitute for an Elevation Certificate.

Community Name: Monroe County Community ID Number: 125129 FIRM Panel Number: \_\_\_\_\_

Panel Suffix: \_\_\_\_\_ Flood Zone: \_\_\_\_\_ FIRM Panel Effective Date: \_\_\_\_\_ Index Date: \_\_\_\_\_

## Section 3: Elevation Information

NOTE: This section must be certified by a Florida licensed engineer or architect.

Note: Numbers must be accurate to 1 decimal place

Answer with 'N/A' if the development proposed does not apply to a question(s) below

1. Datum used: NGVD 29  NAVD 88  Other \_\_\_\_\_
2. Elevation of the Bottom of the Lowest Horizontal Structural Member ..... \_\_\_\_\_ feet
3. Base Flood Elevation (BFE)..... \_\_\_\_\_ feet
4. Design Flood Elevation (DFE = BFE + Freeboard)..... \_\_\_\_\_ feet
5. Elevation of Lowest Adjacent Grade (LAG)..... \_\_\_\_\_ feet
6. Elevation of Highest Adjacent Grade (HAG)..... \_\_\_\_\_ feet
7. Foundation type: Piling  Column  Anchoring Only, no foundation
8. Foundation/Anchoring Description: \_\_\_\_\_
9. Approximate depth of scour/erosion used for foundation design below LAG... \_\_\_\_\_ feet
10. Embedment depth of pilings/columns or foundation below LAG..... \_\_\_\_\_ feet

## Section 4: Foundation Design & Anchoring Certification

(Must be certified by a registered professional engineer or architect, authorized by law to certify such information.)

I certify that I have developed or reviewed the structural design, plans, and specifications for construction and that the proposed design and methods of construction are in accordance with accepted standards of practice for meeting the following provisions:

- (i) The bottom of the lowest horizontal structural member of the lowest floor (excluding piles and columns) is elevated to or above the Base Flood Elevation or DFE, whichever is greater; and
- (ii) The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, lateral movement, and other structural damage from the effects of wind and water loads acting simultaneously on all building components. Water loading values used are those associated with the base flood. Wind loading values used are those required by the applicable state or local building code. The potential erosion and scour at the foundation have been incorporated in design for conditions associated with the base flood, including wave action.



Certifier seal, signature & date

V Zone Construction Certification Continued:

Structure Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Structure Type/Description: \_\_\_\_\_

Local Building Permit #: \_\_\_\_\_

**Section 5: Breakaway Wall Design Certification**

(Must be certified by a registered professional engineer or architect, authorized by law to certify such information.)

I certify that I have developed or reviewed the design, plans, and specifications for construction and that the proposed design and methods of construction to be used for the breakaway walls are in accordance with accepted standards of practice for meeting the following provisions:

- (i) Breakaway walls shall collapse under a water load less than that would occur during the base flood, pursuant to section 122-4(b)(5)i of the Monroe County Code; and
- (ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, and other structural damage due to the effects of wind and water loads acting simultaneously on all building components (wind and water loading values to be used are defined in Section 4: Foundation Design and Anchoring Certification).

**Section 6: Pool and Accessory Development Design Certification**

(Must be certified by a registered professional engineer or architect, authorized by law to certify such information.)

I certify that I have developed or reviewed the design, plans, and specifications for construction and that the proposed design and methods of construction to be used in accordance with accepted standards of practice for meeting the following provisions:

- (i) The foundation or anchoring and the construction attached thereto is anchored to resist flotation, collapse, permanent lateral movement, and other structural damage from the effects of wind and water loads acting simultaneously on all building components and will not damage the foundation or exacerbate scour of adjacent buildings. Water loading values used are those associated with the base flood. Wind loading values used are those required by the applicable state or local building code. The potential erosion and scour at the foundation have been incorporated in design for conditions associated with the base flood, including wave action.
- (ii) Decks and patios will remain intact and in place during the base flood or break apart into small pieces so that the resulting debris will not damage nearby structures.
- (iii) Fences are designed to fail under base flood conditions without the resulting debris damaging nearby structures.

**Section 7: Certification**

Check all applicable:    **Section 3**    **Section 4**    **Section 5**    **Section 6**    circle applicable    i    ii    iii

Certifier's Name (print): \_\_\_\_\_

Title: \_\_\_\_\_

License number & State: \_\_\_\_\_

Company Name: \_\_\_\_\_

Mailing Street Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

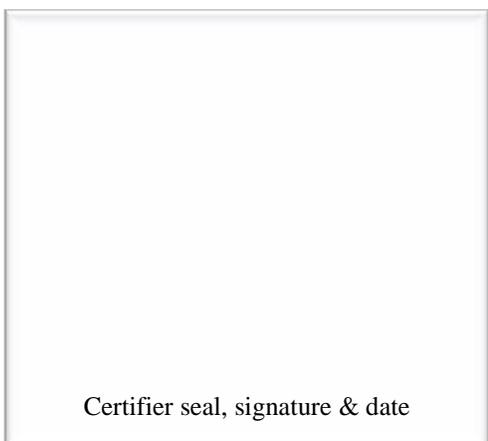
Zip Code: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

E-mail: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**Design Calculations:**

- Calculated velocity
- Hydrostatic load – buoyancy effects, lateral loads from standing water, slowly moving water, and nonbreaking waves
- Breaking wave load
- Hydrodynamic load – from rapidly moving water, including breaking waves
- Debris impact load – from waterborne objects
- Estimation of scour
- Breakaway wall design and calculations
- Free of obstruction design for ground slabs
- Free of obstruction design for accessory structures and pools