



## **Chuck Chase**



- Certified Floodplain
   Manager
- MS in Management
   Systems
- BS Education
- Per State
  Contege
- BS Mathematics



## The Elevation Certificate

The Elevation Certificate (EC) is an administrative tool used by the NFIP to provide elevation information necessary to

- ensure compliance with community floodplain management ordinances;
- inform mitigation actions that will lower flood risk;
- and/or support a request for a LOMA to remove a building from a high-risk area.

It shows the location of the building, lowest floor elevation as compared to base flood elevation (BFE), building characteristics, and flood zone.

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

OMB No. 1650-0008 Expiration Date: November 30, 2022

#### ELEVATION CERTIFICATE

A1.	SEC	FOR INSUR	ANCE COMPANY US			
	Building Owner's Name	Policy Numb	er.			
A2.	Building Street Address (in Box No.	AIC Number:				
	City		State		ZIP Code	
АЗ.	Property Description (Lot a	nd Blook Numbers, Ta	x Parcel Number, Lega	al Description, e	to.)	
A4.	Building Use (e.g., Resider	ntial, Non-Residential, /	Addition, Accessory, et	ta.)		
A5.	Latitude/Longitude: Lat.		Long.	Horizonta	al Datum: 🔲 NAD 1	927 NAD 1983
A6.	Attach at least 2 photograp	hs of the building if the	Certificate is being us	ed to obtain floo	od insurance.	_
A7.	Building Diagram Number	•				
AB.	For a building with a crawls	space or enclosure(s):				
	a) Square footage of crawl	space or enclosure(s)		sq ft		
	b) Number of permanent fit	ood openings in the ora	wispace or enclosure	(s) within 1.0 foo	it above adjacent gra	de
	c) Total net area of flood o	penings in A8.b	sq in			
	d) Engineered flood openir	ngs7 Yes N	lo			
A9.1	For a building with an attact	hed garage:				
	a) Square footage of attach	hed garage	ft pa			
	b) Number of permanent fit	ood openings in the att	ached garage within 1	.0 foot above ad	lacent grade	
	c) Total net area of flood or		sgi			
				"		
	d) Engineered flood openin					
-		ECTION B - FLOOD II	NSURANCE RATE N	MAP (FIRM) IN	FORMATION	
		ECTION B - FLOOD I	NSURANCE RATE N B2. County N	, ,	FORMATION	B3. State
	SI	ECTION B - FLOOD I		, ,	FORMATION	B3. State
B1. I	SI	ECTION B - FLOOD I		, ,	B9. Base Flood E	*
B1. I	NFIP Community Name & C	ECTION B - FLOOD II	B2. County N	lame B8. Flood	B9. Base Flood E	evation(s)
B1. M	Sill NFIP Community Name & Community Nam	ECTION B - FLOOD II Community Number  B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood El (Zone AO, use	evation(s)
B1. M	NFIP Community Name & C	BS. FIRM Index Date  Base Flood Elevation	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood El (Zone AO, use	evation(s)
B1. I	NFIP Community Name & 0 tap/Panel B5. Suffix sumber B5. Suffix	Base Flood Elevation  Community Number  B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date  (BFE) data or base flo	B8. Flood Zone(s) od depth entere	B9. Base Flood EI (Zone AO, use d in Rem B9:	evation(s)
B1. 1	SI NFIP Community Name & O App/Panel B5. Suffix Number B5. Suffix Indicate the source of the	B6. FIRM Index Davie  Base Flood Bievation Community Deterr	B7. FIRM Panel Effective/ Revised Date  (BFE) data or base for mined	B8. Flood Zone(s) od depth entere ce:	B9. Base Flood EI (Zone AO, use do in Rem B9:	evation(s) Base Flood Depth)
B1. 1 B4. M	SI NFIP Community Name & O Ass/Panel B5. Suffix Unificer B5. Suffix Indicate the source of the FIS Profile FIFM Indicate elevation datum to	Base Flood Elevation  Community Number  Base Flood Elevation  Community Determine the Base Flood Elevation  Community Determine the Base Flood Elevation  Community Determine The Base Flood Elevation  Community Determine Resolution Elevation Elevation  Community Determine Resolution Elevation Ele	B7. FIRM Panel Effective/ Revised Date  (BFE) data or base for mined	B8. Flood Zone(s) od depth entere ce:	B9. Base Flood EI (Zone AO, use do in Rem B9:	evation(s) Base Rood Depth)

## **Elevation Certificate**

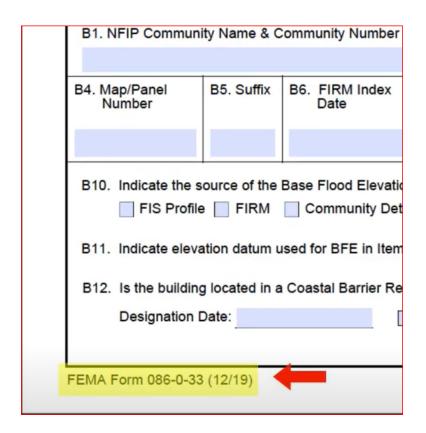
- Technically FEMA Form 086-0-33
- Ensure you are using the December 2019 version
- Became effective 2/21/20
- No grace period
- You can find it on the DNR Website: <a href="https://dnr.nebraska.gov/floodplain/digital-desk-reference">https://dnr.nebraska.gov/floodplain/digital-desk-reference</a>

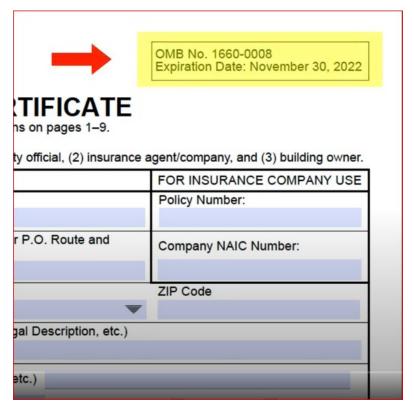


## **Elevation Certificate**

- Not required by FEMA for permitting
  - But may be required by your community
  - Is required by the CRS program
- Is required by FEMA for LOMAs and LOMR-Fs

## Verify the date in the lower left or upper right corner of the EC





## **Section A**

#### **ELEVATION CERTIFICATE**

Important: Follow the instructions on pages 1-9.

	SECTION A - PROPI	ERTY INFORMATION		FOR INSURANCE	COMPANY USE
A1. Building Owner's	Name			Policy Number:	
A2. Building Street A Box No.	ddress (including Apt., Unit	, Suite, and/or Bldg. No.) or P.C	). Route and	Company NAIC No	umber:
City		State		ZIP Code	
			~		
A3. Property Descrip	tion (Lot and Block Number	rs, Tax Parcel Number, Legal D	escription, etc.)		
A4. Building Use (e.g	g., Residential, Non-Reside	ntial, Addition, Accessory, etc.)			
A5. Latitude/Longitude	de: Lat.	Long.	Horizontal Datu	m: NAD 1927	NAD 1983
			_		
A6. Attach at least 2		if the Certificate is being used	- to obtain flood insur	rance.	_
A6. Attach at least 2 A7. Building Diagram	photographs of the building		- to obtain flood insul	rance.	_
A7. Building Diagram	photographs of the building	j if the Certificate is being used	- to obtain flood insui	rance.	_
A7. Building Diagram A8. For a building wi	photographs of the building	if the Certificate is being used e(s):	to obtain flood insur	rance.	
A7. Building Diagram A8. For a building wi a) Square footag	photographs of the building  Number  th a crawlspace or enclosur ge of crawlspace or enclosu	if the Certificate is being used e(s):	sq ft		
A7. Building Diagram A8. For a building wi a) Square footag b) Number of pe	photographs of the building  Number  th a crawlspace or enclosur ge of crawlspace or enclosu	e(s):	sq ft		
A7. Building Diagram A8. For a building wi a) Square footag b) Number of pe c) Total net area	photographs of the building n Number th a crawlspace or enclosur ge of crawlspace or enclosur rmanent flood openings in to of flood openings in A8.b	e(s):  re(s)  he crawlspace or enclosure(s) of sq in	sq ft		
A7. Building Diagram A8. For a building wi a) Square footag b) Number of pe	photographs of the building n Number th a crawlspace or enclosur ge of crawlspace or enclosur rmanent flood openings in the	e(s):  re(s) he crawlspace or enclosure(s)	sq ft		
A7. Building Diagram A8. For a building wi a) Square footag b) Number of pe c) Total net area d) Engineered file	photographs of the building n Number th a crawlspace or enclosur ge of crawlspace or enclosur rmanent flood openings in to of flood openings in A8.b	e(s):  re(s)  he crawlspace or enclosure(s) of sq in	sq ft		
A7. Building Diagram A8. For a building wi a) Square footag b) Number of pe c) Total net area d) Engineered fl	photographs of the building n Number th a crawlspace or enclosur ge of crawlspace or enclosur rmanent flood openings in to of flood openings in A8.b	e(s):  re(s)  he crawlspace or enclosure(s) of sq in	sq ft		
A7. Building Diagram A8. For a building wi a) Square footag b) Number of pe c) Total net area d) Engineered fl A9. For a building wit a) Square footag	photographs of the building n Number th a crawlspace or enclosur ge of crawlspace or enclosur rmanent flood openings in ta of flood openings in A8.b ood openings? Yes h an attached garage	e(s):  re(s)  he crawlspace or enclosure(s) of the properties of t	sq ft within 1.0 foot above	e adjacent grade	
A7. Building Diagram A8. For a building wi a) Square footag b) Number of pe c) Total net area d) Engineered fli A9. For a building wit a) Square footag b) Number of pe	photographs of the building n Number th a crawlspace or enclosur ge of crawlspace or enclosur rmanent flood openings in ta of flood openings in A8.b ood openings? Yes h an attached garage	e(s):  tre(s)  the crawlspace or enclosure(s) of the crawlspace or enclosure or enclosure or enclosure or enclosure or enclo	sq ft within 1.0 foot above	e adjacent grade	

## Sections A2 and A3

- Either Section A2 or A3 must be filled out
- Regardless, City, State, and Zip need to be filled in and is often missed
- This address must be copied to the top of each subsequent page, and they must match

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 - PROPER	RTY INFORMATION	F	OR INSURANCE COMPANY USE			
A1. Building Owner's Name						
A2. Building Street Address (including Apt., Unit, S Box No.	). Route and	Company NAIC Number:				
City	State		ZIP Code			
		▼				
A3. Property Description (Lot and Block Numbers,	Tax Parcel Number, Legal D	escription, etc.)				
A4. Building Use (e.g., Residential, Non-Resident	ial, Addition, Accessory, etc.)					
A5. Latitude/Longitude: Lat.	Long.	Horizontal Datum:	NAD 1927 NAD 1983			

## **Section A4**

#### **ELEVATION CERTIFICATE**

SECTION A	- PROPERTY INFORMATION	N	FOR INSURANCE COMPANY USE	
Building Owner's Name			Policy Number:	
Building Street Address (including Box No.	Apt., Unit, Suite, and/or Bldg. I	No.) or P.O. Route and	Company NAIC Number:	
City	Sta	ate	ZIP Code	
4. Building Use (e.g., Residential, No	on-Residential, Addition, Acces	sory, etc.)	I, Addition, Accessory, etc.)	
E I -titude //itude / I -t				
b. Latitude/Longitude: Lat.	Long.	Horizon	al Datum: NAD 1927 NAD 1983	
A6. Attach at least 2 photographs of the				
A6. Attach at least 2 photographs of the A7. Building Diagram Number	ne building if the Certificate is b			
A5. Latitude/Longitude: LatA6. Attach at least 2 photographs of the A7. Building Diagram NumberA8. For a building with a crawlspace of a) Square footage of crawlspace	ne building if the Certificate is b			
A6. Attach at least 2 photographs of the A7. Building Diagram Number	r enclosure(s):	eing used to obtain flo	od insurance.	
A6. Attach at least 2 photographs of the A7. Building Diagram Number  88. For a building with a crawlspace of a) Square footage of crawlspace	r enclosure(s): or enclosure(s) enings in the crawlspace or enclosure	eing used to obtain flo sq ft	od insurance.	
A6. Attach at least 2 photographs of the A7. Building Diagram Number A8. For a building with a crawlspace of a) Square footage of crawlspace b) Number of permanent flood open	or enclosure(s): or enclosure(s) enings in the crawlspace or enclosure in A8.b	eing used to obtain flo sq ft	od insurance.	
A6. Attach at least 2 photographs of the A7. Building Diagram Number  A8. For a building with a crawlspace of a) Square footage of crawlspace of b) Number of permanent flood openings	r enclosure(s): or enclosure(s) enings in the crawlspace or enclosin A8.b	eing used to obtain flo sq ft	od insurance.	
A6. Attach at least 2 photographs of the A7. Building Diagram Number A8. For a building with a crawlspace of a) Square footage of crawlspace of b) Number of permanent flood openings of the A8. Total net area of flood openings of the A8.	ne building if the Certificate is building if the Certificate	eing used to obtain flo	od insurance.	
A6. Attach at least 2 photographs of the A7. Building Diagram Number A8. For a building with a crawlspace of a) Square footage of crawlspace of b) Number of permanent flood openings d) Engineered flood openings? A9. For a building with an attached gar	ne building if the Certificate is burner enclosure(s): or enclosure(s) enings in the crawlspace or enclos in A8.b  Yes No age:	eing used to obtain flo sq ft closure(s) within 1.0 fo sq in	od insurance.  ot above adjacent grade	

## A4 is Required

- Residential, Non-Residential, or Accessory are key since that is how the NFIP categorizes structures
- Terms like addition, commercial, industrial, housing complex are also helpful
- Something is required in this blank, and it must be enough for the reader to determine if the structure is Residential, Non-Residential, or Accessory.

## Additions!

If this is for an addition, ensure that the location of the elevation shot is provided in section D!!!

### Is this an EC for just the Addition?

 The lowest floor elevation for the addition may not be the lowest floor for the structure.

#### Is this an EC for the entire structure?

 The lowest floor for the structure may not indicate if the addition is built in compliance with your permit for the addition.



# Sections A1, A5, and A6 are not required

	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.							
	A1. Building Owner's Name  SECTION A – PR SECTION A – PROPERTY INF	ORMATION						
	A2. Building Street Address (including Apt., Box No.  A1. Building Owner's Name							
	City State ZIP Code							
A5.	i. Latitude/Longitude: Lat. Long. Horizontal Datum: NAD 19	027 NAD 1983						
A6	6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.							
	A5. Latitude/Longitude: Lat. Long. 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							
	A8. For a building with a crawlspace or enclosure(s):							
	a) Square footage of crawlspace or enclosure(s) sq ft							
	b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade							
	c) Total net area of flood openings in A8.b sq in							
	d) Engineered flood openings?							
	A9. For a building with an attached garage:							
	a) Square footage of attached garage sq ft							
	b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade							
	c) Total net area of flood openings in A9.b							
	d) Engineered flood openings?							

# A1 and A5 are NOT Required for Permitting

- The owners name will be on the permit, and if the EC was provided to a prior owner and is still valid a new EC is not required.
- Lat. and Long. are not required since you have the address.

## **A6**

- Pictures may not be required for permittingbut they are required for insurance.
- Pictures are also good evidence of what was permitted and what the status was when the EC was created.





## **Section A7**

#### **ELEVATION CERTIFICATE**

Important: Follow the instructions on pages 1–9.

	SECTION A - PROPERTY INFORMATION	FOR INSURANCE COMPANY USE
41.	. Building Owner's Name	Policy Number:
<b>\2</b> .	. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Roul Box No.	te and Company NAIC Number:
	City State	ZIP Code
43.	. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Descrip	
45. 46.	Building Use (e.g., Residential Non-Residential Addition Accessory etc.)  Latitude/Longitude: L A7. Building Diagram Number  Building Diagram Number	tal Datum: NAD 1927 NAD 1983
٧.	. Building Diagram Number	
84	For a huilding with a crawlenage or enclosure(s):	
<b>\8</b> .	For a building with a crawlspace or enclosure(s):  a) Square footage of crawlspace or enclosure(s)	ft
<b>\</b> 8.		
<b>A</b> 8.	a) Square footage of crawlspace or enclosure(s) sq	
<b>\8</b> .	a) Square footage of crawlspace or enclosure(s) sq      b) Number of permanent flood openings in the crawlspace or enclosure(s) within a	
	a) Square footage of crawlspace or enclosure(s) sq b) Number of permanent flood openings in the crawlspace or enclosure(s) within a c) Total net area of flood openings in A8.b sq in	
	a) Square footage of crawlspace or enclosure(s) sq. b) Number of permanent flood openings in the crawlspace or enclosure(s) within sq. c) Total net area of flood openings in A8.b sq in d) Engineered flood openings? Yes No	
	a) Square footage of crawlspace or enclosure(s) sq b) Number of permanent flood openings in the crawlspace or enclosure(s) within c c) Total net area of flood openings in A8.b sq in d) Engineered flood openings? Yes No For a building with an attached garage:	1.0 foot above adjacent grade
	a) Square footage of crawlspace or enclosure(s) sq.  b) Number of permanent flood openings in the crawlspace or enclosure(s) within sq. c) Total net area of flood openings in A8.b sq in d) Engineered flood openings? Yes No  For a building with an attached garage:  a) Square footage of attached garage sq ft	1.0 foot above adjacent grade

### A7 is Critical and Often Difficult

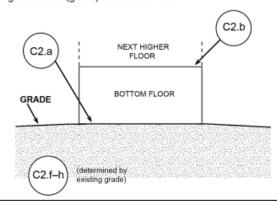
- We make a big deal of this, but the bottom line: The diagram should represent the building.
- Whatever is used, it must be specific: 1A or 2B - simply a 1 or 2 is an error.
- It is the Insurance Agent that needs to determine if you are correct and pick the right diagram for rating purposes

Regardless, we will cover them

#### DIAGRAM 1A

All slab-on-grade single- and multiple-floor buildings (other than split-level) and high-rise buildings, either detached or row type (e.g., townhouses); with or without attached garage.

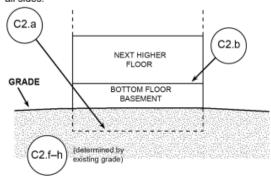
**Distinguishing Feature** – The bottom floor is at or above ground level (grade) on at least 1 side.\*



#### DIAGRAM 2A

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

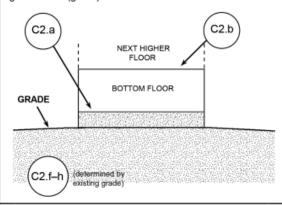
**Distinguishing Feature** – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.\*



#### **DIAGRAM 1B**

All raised-slab-on-grade or slab-on-stem-wall-with-fill single- and multiple-floor buildings (other than split-level), either detached or row type (e.g., townhouses); with or without attached garage.

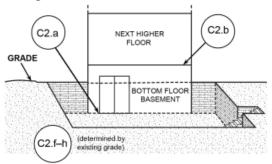
**Distinguishing Feature** – The bottom floor is at or above ground level (grade) on at least 1 side.\*



#### DIAGRAM 2B

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

**Distinguishing Feature** – The bottom floor (basement or underground garage) is below ground level (grade) on all sides; most of the height of the walls is below ground level on all sides; and the door and area of egress are also below ground level on all sides.\*

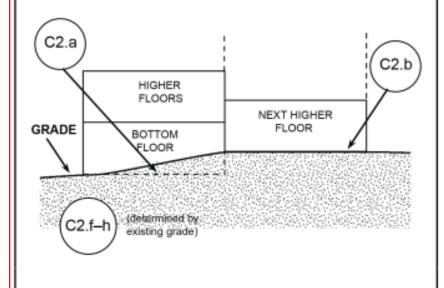


## **Split Levels**

#### DIAGRAM 3

All split-level buildings that are slab-on-grade, either detached or row type (e.g., townhouses); with or without attached garage.

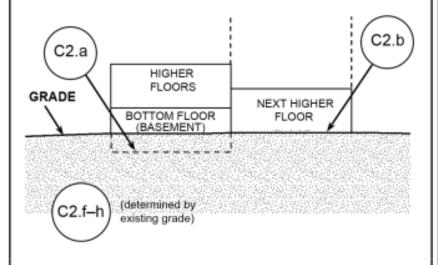
Distinguishing Feature – The bottom floor (excluding garage) is at or above ground level (grade) on at least 1 side.\*



#### DIAGRAM 4

All split-level buildings (other than slab-on-grade), either detached or row type (e.g., townhouses); with or without attached garage.

**Distinguishing Feature** – The bottom floor (basement or underground garage) is below ground level (grade) on all sides.\*

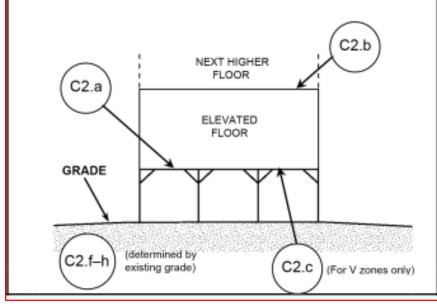


## **Elevated on Posts**

#### DIAGRAM 5

All buildings elevated on piers, posts, piles, columns, or parallel shear walls. No obstructions below the elevated floor.

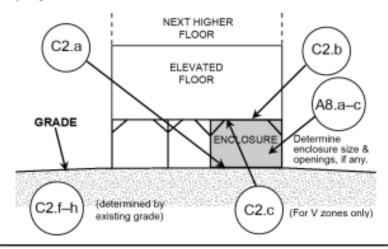
**Distinguishing Feature** – For all zones, the area below the elevated floor is open, with no obstruction to flow of floodwaters (open lattice work and/or insect screening is permissible).



#### DIAGRAM 6

All buildings elevated on piers, posts, piles, columns, or parallel shear walls with full or partial enclosure below the elevated floor.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings\*\* present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.

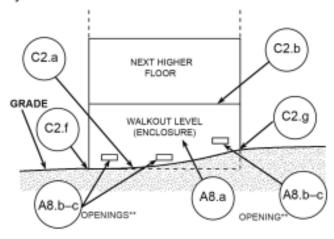


## All Walkouts are Diagram 7

#### DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least 1 side is at or above grade. The principal use of this building is located in the elevated floors of the building.

**Distinguishing Feature** – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings\*\* present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.

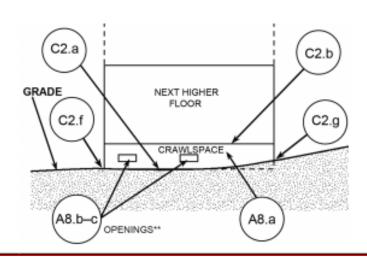


## **Crawl Spaces**

#### DIAGRAM 8

All buildings elevated on a crawlspace with the floor of the crawlspace at or above grade on at least 1 side, with or without an attached garage.

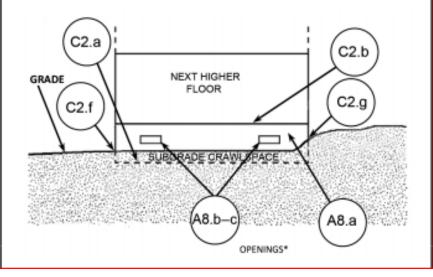
**Distinguishing Feature** – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawlspace is with or without openings\*\* present in the walls of the crawlspace. Indicate information about crawlspace size and openings in Section A – Property Information.



#### DIAGRAM 9

All buildings (other than split-level) elevated on a subgrade crawlspace, with or without attached garage.

Distinguishing Feature – The bottom (crawlspace) floor is below ground level (grade) on all sides.\* (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, or the crawlspace floor is more than 2 feet below the grade [LAG] on all sides, use Diagram 2A or 2B.)



## **Sections A8 and A9**

#### **ELEVATION CERTIFICATE**

Important: Follow the instructions on pages 1-9.

		important. I ollow the instructions on pages 1—3.		
A8	. 1	For a building with a crawlspace or enclosure(s):		
	ć	a) Square footage of crawlspace or enclosure(s) sq ft		
	b	b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot about	ove	adjacent grade
	C	c) Total net area of flood openings in A8.b sq in		
	(	d) Engineered flood openings?		
A9	. F	For a building with an attached garage:		
	a	a) Square footage of attached garage sq ft		
	b	b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacen	nt gi	rade
	C	c) Total net area of flood openings in A9.b		
	d	d) Engineered flood openings?		
		A9. For a building with an attached garage:		
		a) Square footage of attached garage sq ft		
		b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade		
		c) Total net area of flood openings in A9.b		
		d) Engineered flood openings?		
	L			

## A8 and A9

- Crawlspace is a diagram 8 and 9
- An enclosure is associated with an elevated building: Diagrams 6 or 7
- A garage is attached to a nonelevated building

# If you have both a garage and an enclosure both must be listed unless they are vented together as one unit

#### Example:

Crawlspace = 1200 sq. ft. Garage = 600 sq. ft.

Only A8 filled out: Enclosure = 1800 sq feet with 2000 sq. in. of venting. (properly vented)

A8 and A9 filled out: Enclosure(A8) = 1200 sq ft with 2000 sq. in. of venting. Garage(A9) = 600 sq. ft. with no vents. (garage not properly vented)

## Section A8.c

#### **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	Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	Company NAIC Number:

		A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Rout Box No.	e and	Company NAIC Number:			
A8. For a building with a crawlspace or enclosure(s):							
	a) Square footage of crawlspace or enclosure(s) sq ft						
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above ad						ent grade	
	c) Total net area of flood openings in A8.b sq in						
	d) Engine	ered flood openings? Yes No					
		A8. For a building with a crawlspace or enclosure(s):					
		a) Square footage of crawlspace or enclosure(s) sq	ft				
		b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1	.0 foot above	adjacent grade			
c) Total net area of flood openings in A8.b sq in							
	d) Engineered flood openings?						
		A9. For a building with an attached garage:					
		a) Course factors of attached severe					

a) Square footage of attached garage sq ft
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade
c) Total net area of flood openings in A9.b sq in

## **Engineered Vents and A8.c**

- Instructions say to list square inches
- FEMA TB-1 Says 8A.c must be filled in with the total coverage or rated area of engineered openings
- Fill it out either way, and note it in Section D
  - The Engineered Opening Certification must be attached
- The write "N/A" if no openings exist

Certification of Engineered Flood Openings					
In accordance with the Code of Federal Regulations for the National Flood Insur-	*\	N.4. I. I.	H×W	A <sub>o</sub>	$A_{\mathrm{e}}$
I hereby certify that the Crawl Space Door Systems flood vents 816CS, 122CS, 1232CS, 1616CS, 1624CS, 1632CS, 2032CS, designed in accordance with the requirements of the Code of Federal Regulations for the National Flood Insurance Program	11)	Model	[in]	[in <sup>2</sup> ]	[ft <sup>2</sup> ]
to provide automatic equalization of hydrostatic flood forces by allowing for the entry and exit of floodwaters, when pro as set forth below. Vent opening measurements were measured and certified by Mr. Christopher Mark Loney, Viginia P.I. calculations were prepared as outlined in "fleview of certification of Engineered Flood Openings," prepared by Dr. Ge		816CS	8 x 16	105	205
Professor of Building Construction, Virginia Tech (evailable upon request from Crawl Space Door Systems, Inc. billy@crawlsp Design Characteristics		1220CS	12 x 20	235	500
		122266	12 22	205	645
Section 2.6.2.2 of ASCE/SEI 24-05 provides an equation to determine the required net area of engineered ope		1232CS	12 x 32	305	645
enclosed area (A <sub>n</sub> ). This equation is based on the hydraulic formula for the flow rate across sharp edged criffic equation to calculate 1) the restricted flow rate through the main frame opening in case the louver is blow event: 2) the flow rate through the individual openings between louver blades; and 3) the flow rate through		1616CS	16 x 16	180	395
between louver blades following hydraulic short-tube theory. The maximum total enclosed area (A <sub>e</sub> ) that can be vent has then been determined by utilizing the lowest flow rate of the three assessed scenarios for each vent a		1624CS	16 x 24	310	670
These values are based on the following assumptions:  In absence of reliable data, the rates of rise and fall have been   Model   H x W   [in]   [in]		1632CS	16 x 32	405	835
assumed at a minimum rate of 3 feet/hour;  The (maximum) difference between the exterior and interior floodwater levels shall not exceed 1 foot durine base flood		2032CS	20 x 32	630	1240
conditions;   A factor of safety of 5 has been assumed, which is consistent   1232CS 12 x 32 3  1616CS 16 x 16 11		2424CS	24 x 24	570	1230

2436CS

1230

24 x 36

850

1765

#### . 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:

with design practices related to protection of life and property;

- 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,) that can be serviced by each individual model based on the given net area of engineered openings (A<sub>o</sub>)

4

650

570

850

16 x 24

16 x 32

20 x 32

24 x 24

24 x 36

1624CS

163205

2032CS

2424CS

2436CS

#### Certifying Design Professional

Name	J. Stacey Hart	Title President	MAR MAR
Company	J. Stacey Hart & Associates, Inc.		
Address	P.O. Box 6, Snow Hill, MD 21863		
License	Professional Engineer	License No. 22798	
Signature	J. Bry Hart	Date: 11/27/2017	Wand water

#### 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

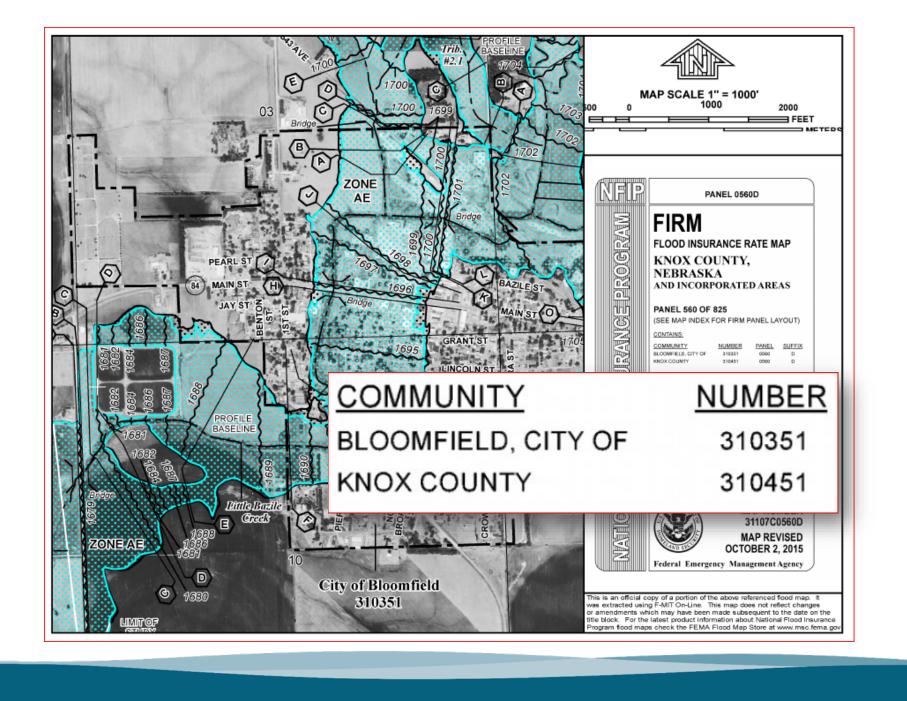
Ver. 2.0

## **Section B**

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION								
B1. NFIP Commun	ity Name & C	Community Number		B2. County Name			B3. State	
						▼		
Number Date		Effe			B9. Base Flood E (Zone AO, use	levation(s) e Base Flood Depth)		
FIS Profile	e FIRM ation datum u	Base Flood Elevation Community Determined for BFE in Item Base Coastal Barrier Reso	mined [	Other/Sou	rce:	Other/Source:	DPA)? Yes No	

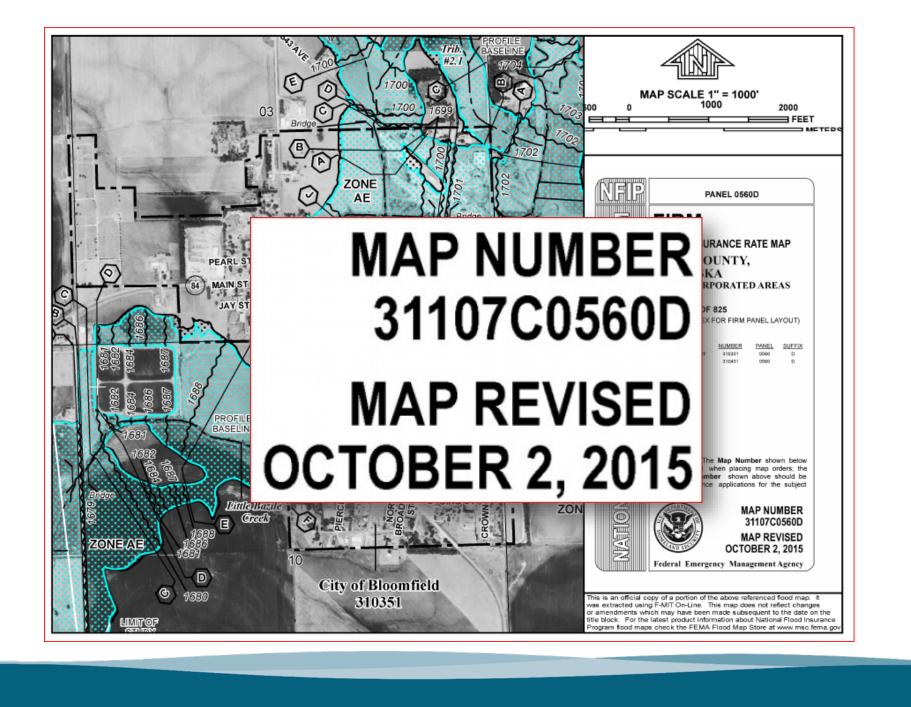
## B1, B2, and B3

B1. NFIP Community Name & Community Number					RMATION	RMATION		
B1. N						B3. State		
						<b>V</b>		
B4. Map/Panel Number			B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)				
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								



## B4, B5, B6, and B7

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION								
B1. NFIP Community Name & Community N	Number	B2. County Name	B3. State					
			<b>T</b>					
B4. Map/Panel Number B4. Map/Panel Number  B10. Indicate	B5. Suffix	B6. FIRM Index Date	B7. FIRM Pane Effective/ Revised Da	el ood Depth)				
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:								



## B8 and B9

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	Date Effe		// Panel ctive/ sed Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)	
B8. Flood Zone(s)  B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)							pth)
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							

## B10, B11 and B10

		SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION	
		P1 NEID Community Name & Community Number P2 County Name P2 State	
B10.	Ind	dicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:	
		FIS Profile FIRM Community Determined Other/Source:	
	. Is	dicate elevation datum used for BFE in Item B9: NGVD 1929 NAVD 1988 Other/Source:  the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Yes esignation Date: CBRS OPA	☐ No
		B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)?   Yes  No	
		Designation Date: CBRS OPA	

# B10 The Most Common EC Error in Nebraska

- BFEs from Zone AE come from the Flood Insurance Study (FIS)
- BFEs from Zone A come from the NeDNR (Other Source)
- If you have <u>NO MAPS</u> then you will determine the BFE (Community Determined)
- The ONLY time "FIRM" is the source of the BFE is in Zones AO and AH.

Even if the permit was given when a prior FIRM was regulatory, the EC must be written using the current FIRM

(again, a note in Section D can explain this potential discrepancy)

# New FIRM After the Permit B1, B4, B5, B7, B8, & B9

	SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION								
	B1. NFIP Communi					Name	PORMATION	B3. State	1   1
	120816	City of O	rlando					*	
	B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	Effe	M Panel ective/ rised Date	B8. Flood Zone(s)	B9. Base Flood E (Zone AO, use	levation(s) e Base Flood Depth)	
	12095C0455	G		06/2	0/2018	AE	88	B.O'	
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:    X 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									
FEMA Form 086-0-33 (12/19) Replaces all previous editions. Form Page 1 of 6						1			
Comments (inclus	ding type of equi	nmont ar	ad location, per	C2(a)	if applica	hle)		ram rain rain	
Comments (include FIRM information (1-15-2018) B1: 120186 Cit B4: 12095C055 B5: F B7: 9-25-2009 B8: AE B9: 88.0'	on at the time of a			C2(e),	парриса	DIE)			

# Make sure the heading is filled out on each page and matches Section A

<b>ELEVATION CERTIFICATE</b>	OMB No. 1660-0008 Expiration Date: November 30, 2022				
IMPORTANT: In these spaces, copy	FOR INSURANCE COMPANY USE				
Building Street Address (including Ap	Policy Number:				
City	State	ZIP Code	Company NAIC Number		
SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)					
C1 Building elevations are based of	n· Construction Drawings	* Building Under Const	ruction* Finished Construction		

This is the second most common error

C1.	Building elevations are based on: Construction Dr	_	ling Under Construction*	Finish	ned Construction
00	*A new Elevation Certificate will be required when constr			/44 400 /	DIALL ADIAC
C2.	Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, 'Complete Items C2.a–h below according to the building of				
	Benchmark Utilized:	Vertical Datum:			
	Indicate elevation datum used for the elevations in items	a) through h) below	٧.		
	NGVD 1929 NAVD 1988 Other/Source	ce:			
	Datum used for building elevations must be the same as	that used for the BI		eck the me	asurement used.
	a) Top of bottom floor (including basement, crawlspace,	or enclosure floor)		eet	meters
	b) Top of the next higher floor			feet	meters
	c) Bottom of the lowest horizontal structural member (V	Zones only)		feet	meters
	d) Attached garage (top of slab)			feet	meters
	e) Lowest elevation of machinery or equipment servicing (Describe type of equipment and location in Commen			feet	meters
	f) Lowest adjacent (finished) grade next to building (LA	G)		feet	meters
	g) Highest adjacent (finished) grade next to building (HA	AG)		feet	meters
	h) Lowest adjacent grade at lowest elevation of deck or structural support	stairs, including		feet	meters

Section C is not required if for development in an AO zone.

It is not required in other states for an un-numbered A zone, but since we provide elevations for Zone A, Section C should be filled out for ECs in Nebraska.

1. 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.
<ol> <li>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.     </li> </ol>
Benchmark Utilized: Vertical Datum:
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) feet meters
b) Top of the next higher floor feet meters
c) Bottom of the lowest horizontal structural member (V Zones only)
d) Attached garage (top of slab)
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)
f) Lowest adjacent (finished) grade next to building (LAG)
g) Highest adjacent (finished) grade next to building (HAG)
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support

_
nstruction

#### C2 must match B11

	C1. Building elevations are based on: Construction Drawings* Building Under Cor	nstruction* Finished Co	onstruction
	*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, Complete Items C2.a–h below according to the building diagram specified in Item A7. In P		
	Benchmark Utilized: Vertical Datum:		
	vations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AF, and the second replete Items C2.a–h below according to the building diagram specified in Item A7.		
Ben	nchmark Utilized: Vertical Datum:		
India	cate elevation datum used for the elevations in items a) through h) below.  NGVD 1929 NAVD 1988 Other/Source:		-
	c) Bottom of the lowest horizontal structural member (V Zones only)	leet ln	neters
	d) Attached garage (top of slab)	feet r	meters
	e) Lowest elevation of machinery or equipment servicing the building     (Describe type of equipment and location in Comments)	feet r	meters
	f) Lowest adjacent (finished) grade next to building (LAG)	feet r	meters
	g) Highest adjacent (finished) grade next to building (HAG)	feet r	meters
	h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	feet r	meters
,			

#### **Section C2a**

	C1. Building elevations are based on: Construction Drawings* Builting A new Elevation Certificate will be required when construction of the building C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with B	FE), AR, AR/A, AR/AE, AR	Finished Const	
a)	<ul> <li>Top of bottom floor (including basement, craw</li> </ul>	Ispace, or enclo	sure floor)	
b	Top of the next higher floor			
c)	Bottom of the lowest horizontal structural mem	ber (V Zones o	nly)	
		`	,	
d	) Attached garage (top of slab)		_	
	c) Bottom of the lowest horizontal structural member (V Zones only)		feet mete	rs
	d) Attached garage (top of slab)		feet mete	ers
	<ul> <li>e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)</li> </ul>		feet mete	ers
	f) Lowest adjacent (finished) grade next to building (LAG)		feet mete	ers
	g) Highest adjacent (finished) grade next to building (HAG)		feet mete	ers
	<ul> <li>h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support</li> </ul>		feet mete	ers

## Section C2e - Most common error

	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: Vertical Datum:
	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) feet meters
	b) Top of the next higher floor
۱ ۱	owest elevation of machinery or equipment servicing the building
	Describe type of equipment and location in Comments)
	e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) feet meters
	f) Lowest adjacent (finished) grade next to building (LAG)
	g) Highest adjacent (finished) grade next to building (HAG)
	h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support

#### **Section C2e**

#### Equipment that must be included:

- Furnace
- A/C
- Hot Water Heater
- Duct Work

- Elevators
- Sump Pumps
- Generators
- Heat Pumps

#### Equipment not to be included:

- Meters
- Water pipes
- Electric lines

 Other municipal utilities not owned or insured by the owner

If equipment/utilities are all on the roof, the elevation still needs to be entered here.

### Section C2f and C2g

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Constru	ıction
*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/A Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.	AO.
Benchmark Utilized: Vertical Datum:	
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)	S
b) Top of the next higher floor	s
c) Bottom of the lowest horizontal structural member (V Zones only)	\$
d) Attached f) Lowest adjacent (finished) grade next to building (LAG)	
e) Lowest e	
(Describe g) Highest adjacent (finished) grade next to building (HAG)	
f) Lowest aujacent (infished) grade next to building (End)	
g) Highest adjacent (finished) grade next to building (HAG)	s
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	s

Required Fields	Possibly Required	•
C1, C2	C1. Building elevations are based on: Construction Drawings' Building Under Cor'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, Complete items C2.a-h below according to the building diagram specified in Item A7. In P Benchmark Utilized:  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.	nstruction* Finished Construction  AR/AE, AR/A1–A30, AR/AH, AR/AO.
C2b, C2c, C2d, C2e	a) Top of bottom floor (including basement, crawlspace, or enclosure floor) b) Top of the next higher floor c) Bottom of the lowest horizontal structural member (V Zones only) d) Attached garage (top of slab) e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	feet meters feet meters feet meters feet meters feet meters
C2f, C2g	f) Lowest adjacent (finished) grade next to building (LAG) g) Highest adjacent (finished) grade next to building (HAG) h) Lowest adjacent grade at towest exystem of deck or stars, including structural support	feet meters  feet meters
	The state of	Total I metern

#### **Section D**

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 lic	ensed land surveyor?	Yes No	Check here if	attachments.		
Certifier's Name	License Number					
Title			1			
			Pla	ce		
Company Name			Co			
			Se	aı		
Address			He	re		
City	State	ZIP Code	1			
	~					
Signature	Date	Telephone	Ext.			
Copy all pages of this Elevation Certificate and all attachmen	nts for (1) community of	ficial, (2) insurance ag	ent/company, and (	<ol><li>building owner.</li></ol>		
Comments (including type of equipment and location, per	C2(e), if applicable)					

#### **Section E**

	SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)							
com	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.	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).							
	<ul> <li>Top of bottom floor (including basement, crawlspace, or enclosure) is</li> </ul>		feet	meters	above or below the HAG	3.		
	<ul> <li>Top of bottom floor (including basement, crawlspace, or enclosure) is</li> </ul>		feet	meters	above or below the LAG	ì.		
E2.	For Building Diagrams 6–9 with permanent flood oper the next higher floor (elevation C2.b in	enings provided in Section	on A Item	s 8 and/or 9 (	see pages 1–2 of Instructions),			
	the diagrams) of the building is		feet	meters	above or below the HAG	à.		
E3.	Attached garage (top of slab) is		feet	meters	above or below the HAG	<b>3</b> .		
E4.	Top of platform of machinery and/or equipment servicing the building is		feet	meters	above or below the HAG	<b>3</b> .		
E5.	Zone AO only: If no flood depth number is available, floodplain management ordinance? Yes I	•			rdance with the community's tify this information in Section G.			

#### **Section E and F**

- For AO zones (Not for A zones in Nebraska)
- Fill out the same as C and D
- C is not required if E and F are used
- Both E1a and E1b are required
- E5 Only required if the *community* requires it

## You must check "Feet" and either "Above" or "Below"

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 a) Top of bottom floor (inc crawlspace, or enclosu b) Top of bottom floor (inc crawlspace, or enclosu crawlspace, or enclosu  b) Top of bottom floor (inc crawlspace, or enclosu		
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.		

#### Four ways to correct an EC

- 1. Send it back to the surveyor to make the corrections needed.
- 2. If you have an in-house surveyor on the payroll, have them fill out a new EC with corrections. Have them stamp, sign, and complete section D.
- 3. Memo of Correction Form.
- 4. Notes of correction in Section G.

#### **Section G**

- Optional
- Filled out by the community if used
- Section G can be used to make corrections or updates by the FPA
- This is <u>NOT</u> a
   Floodplain
   Development Permit

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	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued	
G7. This permit has been issued for: New Construction Substantial Improvement			
G8. Elevation of as-built lowest floor (including of the building:	g basement)	feet meters Datum	
G9. BFE or (in Zone AO) depth of flooding at t	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.	

#### **Pictures**

Pictures are only required for insurance, and as of October 1, 2021 EC are not required for insurance.

### But why not have them anyway?

- Pictures paint 1000 words
- They show the venting
- They establish the permitted development.
- They are relatively free



#### **Closing Thoughts**

- Some FPAs fill out section A and B to ensure the information is correct and let the surveyor focus on C and D.
- There are some great videos on YouTube called: <u>CRS Elevation Certificate Training</u> <u>Series.</u>
- Keep Final Construction ECs with the Permit.



#### **Disclaimers**

- Just because I told you something is not required by FEMA, does not mean it is not a good idea to require it for your community.
- If I told you anything that disagrees with the instructions, the YouTube CRS videos, FEMA training/guidance, or any other authoritative product follow it and send me a note.

#### Responsibility

The Surveyor will fill out the EC.

## Yet,

It is the Floodplain Administrator's responsibility to ensure that it is filled out correctly.

## **Chuck Chase**

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