

DETERMINING FIRST FLOOR HEIGHT

FIRST FLOOR HEIGHT

The height of the building's first lowest floor above the adjacent grade, is another rating variable critical to understanding flood risk. Generally, the higher the elevation of a building's first floor, the less flood damage it is likely to incur.

The First Floor Height is determined by FEMA, or the policyholder has the option to provide an EC. If the policyholder provides an EC, FEMA's system will compare both values and use the First Floor Height that is more favorable to the policyholder (highest FFH value).

Method 1: FEMA Determined First Floor Height

FEMA will determine a First Floor Height value using application information and various datasets.

Method 2: Elevation Certificate

The policyholder can optionally provide an EC to provide data for a first-floor height value. All ECs must be certified and accompanied by photographs. FEMA's system will recognize the highest value between the FEMA determined FFH and the EC FFH and use that value for rating purposes.

MEASUREMENT BY FOUNDATION TYPE

Slab on Grade (1A, 1B & 3): Use first floor of the building

Basement (2A, 2B & 4): Use first floor above the basement

Elevated without Enclosure on Posts, Piles or Piers (5): Use first elevated floor

Elevated with Enclosure on Posts, Piles or Piers (6):

Use the enclosure floor if:

- Pre-FIRM building (any zone);
- In a non-special flood hazard area; OR
- In zone unnumbered A, A99, AO, AR/AO or unnumbered V

Use the elevated floor:

- Post-FIRM building; and
- In zones A1-A30, AE, AH, AR, AR/A, AR/AE, AR/AH, AR/A1-A30, V1-V30, or VE

Elevated with Enclosure Not on Posts, Piles or Piers (Solid Foundation Walls) (7):

Use the enclosure floor if:

- Pre-FIRM building (any zone); In a non-special flood hazard area; OR
- In zones unnumbered A, A99, AO, AR/AO or unnumbered V

Use the elevated floor:

- Post-FIRM building; and
- In zones A1-A30, AE, AH, AR, AR/A, AR/AE, AR/AH, AR/A1-A30, V1-V30, or VE

Crawlspace (Elevated or Non-Elevated Subgrade Crawlspace) (8, 9):

Use the crawlspace floor if:

- Pre-FIRM building (any zone); In a non-special flood hazard area; OR
- In zones unnumbered A, A99, AO, AR/AO or unnumbered V

Use the floor above the crawlspace if:

- Post-FIRM building; and
- In zones A1-A30, AE, AH, AR, AR/A, AR/AE, AR/AH, AR/A1-A30, V1-V30, or VE

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USING SECTION C OF THE EC

The building's First Floor Height is the difference between the reported Lowest Floor Elevation (LFE) and the Lowest Adjacent Grade (LAG).

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)		
C1. Building elevations are based on: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input type="checkbox"/> 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.		
<input type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> 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)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters

Lowest adjacent grade (LAG) is located in section C2f of the elevation certificate. The first floor height (FFH) is the difference between the lowest adjacent grade (LAG) & lowest floor elevation (LFE).

EC Diagram Number 1A, 1B, 3 or 5: Non-elevated building on slab or elevated without an enclosure

- C2a – LFE (if C2a is not provided, C2c can be used)
- Add 1 foot to C2c
- $C2c + 1 = LFE$

EC Diagram Number 2, 2B or 4: Non-elevated building with basement

- $C2b = LFE$ (if C2b is not provided add 8 feet to C2a)
- $C2a + 8 = LFE$

EC Diagram Number 6, 7, 8 or 9: Elevated building with an enclosure or building with a crawlspace (elevated or non-elevated subgrade crawlspace) & is Pre-FIRM (in any zone); or in a non-special flood hazard area; or in zone unnumbered A, A99, AO, AR/AO or unnumbered V

- $C2a = LFE$ (if C2a is not provided, C2c can be used; add 1 foot to C2c)
- $C2c + 1 = LFE$

EC Diagram Number 6, 7, 8 or 9: Elevated building with an enclosure or building with a crawlspace (elevated or non-elevated subgrade crawlspace) & is Post-FIRM & in zone A1-A30, AE, AH, AR, AR/A, AR/AE, AR/AH, AR/A1-A30, V1-V30 or VE

- $C2b = LFE$ (if C2b is not provided C2c can be used; add 1 foot to C2c)
- $C2c + 1 = LFE$

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USING SECTION E OF THE EC

Section E of the NFIP EC form can also be used to determine a First Floor Height value. E1b in Section E is the difference between the top of the bottom floor and the lowest adjacent grade (LAG) and can be used as the First Floor Height if the floor is above the grade. E2 can also be used in certain situations.

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)			
For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.			
E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).			
a) Top of bottom floor (including basement, crawlspace, or enclosure) is	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the HAG.
b) Top of bottom floor (including basement, crawlspace, or enclosure) is	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the LAG.
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			
	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the HAG.
E3. Attached garage (top of slab) is			
	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> below the HAG.
E4. Top of platform of machinery and/or equipment servicing the building is			
	_____	<input type="checkbox"/> feet <input type="checkbox"/> meters	<input type="checkbox"/> above or <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown. The local official must certify this information in Section G.			

EC Diagram Number 1A, 1B, 3 or 5:

Non-elevated building on slab or elevated without an enclosure

- E1b = FFH

EC Diagram Number 2, 2b or 4:

Non-elevated building with basement

- E2 = FFH

EC Diagram Number 6, 7, 8 or 9:

Elevated building with an enclosure or building with a crawlspace (elevated or non-elevated subgrade crawlspace) & is Pre-FIRM (in any zone); in a non-special flood hazard area OR in zone unnumbered A, A99, AO, AR/AO or unnumbered V

- E1b = FFH

EC Diagram Number 6, 7, 8 or 9:

Elevated building with an enclosure or building with a crawlspace (elevated or non-elevated subgrade crawlspace) & is Post-FIRM; & in zone A1-A30, AE, AH, AR, AR/A, AR/AE, AR/AH, AR/A1-A30, V1-V30 or VE

- E2 = FFH