

Flood Provisions in the State Building Code

NH State Building Code (effective 9/15/19) includes:

- International Building Code (IBC) 2015
- International Residential Code (IRC) 2015
- American Society of Civil Engineers, *Flood Resistant Design and Construction* (ASCE 24-14)

The Codes includes flood provisions which in some cases are the same as **or in some cases exceed** the NFIP minimum standards

New Flood Provisions in the NH State Building Code for Special Flood Hazard Areas as of September 15, 2019 **OSI**

On September 15, 2019, an updated State Building Code took effect in New Hampshire which includes:

- the 2015 editions of the International Building Code (IBC) and the International Residential Code (IRC);
- the referenced standard **ASCE 24-14 Flood Resistant Design and Construction** which includes four Flood Design Classes based on use or occupancy of non-residential structures; and
- other parts of the 2015 International Code (I-Code) series, as amended by the State.

The new codes include requirements that exceed minimum requirements of the National Flood Insurance Program (NFIP).
This fact sheet summarizes some of the key changes to flood provisions in the 2015 I-Codes which are now part of the State Building Code. **Review of all flood provisions of the 2015 I-Codes is strongly encouraged** since not all changes are listed. (See resources on reverse side.)

New Requirements in "A" Zones (Includes Zones A, AE, A1-30, AO)

- For all New Construction and Substantial Improvements of residential structures, the lowest floor elevation must be at least the Base Flood Elevation (BFE) plus 1 foot or the Design Flood Elevation (DFE)**, whichever is higher. (IRC R322.2.1)
- For all New Construction and Substantial Improvements of non-residential structures, the structure must be elevated or protected at least to the BFE plus:
 - 1 foot for Flood Design Classes 1, 2, and 3
 - 2 feet or the 500-year flood elevation, whichever is higher for Flood Design Class 4 (Essential Facilities) or to the DFE, whichever is higher. (IBC 1612.4; ASCE 24-14)

* Your community may have adopted regulations that exceed both NFIP and State Building Code standards (e.g., lowest floor elevation requirements). If so, those more stringent requirements in your community regulations take precedence.
** The Design Flood Elevation (DFE) will either be the same elevation as the BFE or higher if the community has chosen to regulate development in an area that exceeds the 2% annual chance floodplain (e.g., the 100-year floodplain).

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Zones A, AE, A1-30, AO (not including Coastal A Zones)

- For all New Construction and Substantial Improvements of residential structures, the lowest floor elevation must be at least the Base Flood Elevation (BFE) plus 1 foot **or** the Design Flood Elevation (DFE), whichever is higher. (IRC R322.2.1)

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What is the “Design Flood Elevation” (DFE)?

- The DFE will either be the same elevation as the Base Flood Elevation or higher if the community has chosen to regulate development in an area that exceeds the 1% annual chance floodplain (e.g., the 500-year floodplain).

Zones A, AE, A1-30, AO (not including Coastal A Zones)

- For all New Construction and Substantial Improvements of non-residential structures, the structure must be elevated or protected at least to the BFE plus:
 - 1 foot for Flood Design Classes 1, 2, and 3
 - 2 feet or the 500-year flood elevation, whichever is higher for Flood Design Class 4 (Essential Facilities)or to the DFE, whichever is higher. (IBC 1612.4; ASCE 24-14)

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Coastal A Zones

- New Construction and Substantial Improvements of structures in Coastal A Zones must meet all Zone VE requirements including breakaway walls. (Stem wall foundations are acceptable if they meet specific requirements.) (IRC R322.3)

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VE Zones and Coastal A Zones

- Breakaway walls in Zone VE and Coastal A Zones must have compliant flood openings. (IRC R322.3.4)



Figure 2-20.
Flood opening in an
enclosure with breakaway
walls, Hurricane Ike
(Galveston Bay shoreline,
San Leon, TX)

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VE Zones and Coastal A Zones

- For all New Construction and Substantial Improvements of residential structures in Zone VE and Coastal A Zones, the bottom of the lowest horizontal structural member must be elevated at least to the BFE plus 1 foot or the DFE, whichever is higher. (IRC R322.3.2)

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VE Zones and Coastal A Zones

- For all New Construction and Substantial Improvements of non-residential structures, the bottom of the lowest horizontal structural member must be elevated at least to the BFE plus:
 - 1 foot for Flood Design Classes 1 and 2
 - 2 feet for Flood Design Class 3
 - 2 feet or the 500-year flood elevation, whichever is higher for Flood Design Class 4 (Essential Facilities)
- or to the DFE, whichever is higher. (IBC 1612.4; ASCE 24-14)

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Building Code Resources

- [NHOSI Building Code fact sheet](#)
- [State Building Code website](#)
- [FEMA Flood Building Codes Resources page](#)
- [International Code Council website \(access IBC and IRC\)](#)

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Summary

- Added risks in coastal areas mean additional building requirements for new development.
- NFIP requirements are included in your community's floodplain regulations.
- Additional State Building Code requirements that go beyond the minimum NFIP standards also apply.

Questions?



Reminder!

- When FEMA updates a community's FIRM and FIS report with new or revised flood hazard information, community must update its floodplain regulations to reference the date of the new maps and report before the new effective date (**1/29/2021**).
- Community's floodplain regulations must be NFIP compliant by the map effective date.
- Documentation due to OSI by 1/14!

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