



HEALTHCARE MORTGAGEE ADVISORY COUNCIL

Financing Seniors Housing for America

Floodplain Management: Lending Credence to the Revival

Welcome to Floodplain Management

- Existing Policies
- Proposed Policies
- Industry Response
- Q&A

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Background - Flooding Risk in the United States

- From 1996-2019, 99 percent of U.S. counties were impacted by a flooding event.
- While flooding and severe storms affect all communities, it is more difficult for socially vulnerable populations such as low-income and minority communities to recover from flooding impacts.
- Since 2017, the U.S has seen eight separate flooding events costing \$1 billion or more, which NOAA estimates to have cost in total over \$30 billion dollars.
- Flood risk is expected to increase in the future due to increasing frequency of severe weather events, natural disasters, and changes in development patterns.
- As climate change progresses, flooding disasters will continue to become more frequent and more severe, increasing the flooding risk to communities.

Timeline

- On October 8, 2015, the Waters Resource Council (WRC) issued updated guidelines for implementing E.O. 11988 and E.O.13690.
 - Various approaches for determining the higher vertical flood elevation and corresponding horizontal floodplain.
 - Meant as a resilience standard.
 - Provided for 3 approaches:
 - CISA
 - Freeboard Value Approach (FVA)
 - 0.2-Percent Annual Chance (500-year) Flood Approach
- HUD published a proposed rule on October 28, 2016; E.O. 13690 was revoked in August 2017 and HUD withdrew the proposed rule.



Timeline

- EO 14030 established the Federal Flood Risk Management Standard (FFRMS) and directed agencies to incorporate it.
- HUD's 2021 Climate Action Plan, HUD committed to completing the rulemaking to update 24 CFR Part 55 and implement (FFRMS) to increase climate resilience and climate justice.
- Current proposed rule published March 24, public comments were accepted through June 6.



Intent of the Proposed Rule

- HUD is proposing a new rule to modify our floodplain management regulations to better address flood risk.
- This rule is intended to implement requirements found in **EO 13690** - Establishing a Federal Flood Risk Management Standard (FFRMS) (2015) and **EO 14030** – Climate Related Financial Risk (2021) by updating:
 - **Part 55**, Floodplain Management and Protection of Wetlands: Applies to all HUD Programs that trigger NEPA/environmental review requirements
 - **Part 200**, Minimum Property Standards: Applies to single-family housing under HUD mortgage insurance and low-rent public housing programs
- HUD is one of several federal agencies currently pursuing rulemaking to implement FFRMS.

Major Changes Under the Proposed Rule



Redefining the floodplain of concern



Increasing the required elevation for new construction and substantially improved structures



Clarifying/strengthening public notice and flood insurance requirements to increase awareness of flood risk



Flexibilities in HUD assistance for specific properties in floodways when specific criteria are met

24 CFR Part 55 - FLOODPLAIN MANAGEMENT AND PROTECTION OF WETLANDS

Existing HUD Standards & The Current Proposed Rule

Existing HUD Standards

- **24 CFR Part 55** implements the requirements of Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands
- E.O. 11988 directs Federal agencies to avoid adverse impacts associated with the occupancy and modification of floodplains, and to avoid support of floodplain development wherever there is a practicable alternative
- In accordance with E.O. 11988, Part 55 requires the use of the “best available information” to determine a project’s flood zone designation.
- All Section 232 Projects are “critical actions” for floodplain management purposes.
- Consistent with E.O. 11988, when a critical action is in a 100-year or 500-year floodplain, an 8-step decision making process is completed.

EARLY PUBLIC NOTICEFloodplain Management
(Executive Order 11988)

The U.S. Department of Housing and Urban Development (HUD) is reviewing the project shown below to determine whether federal funds should be granted herein:

Name of Project: Proposed Brainerd Road Apartments aka Forest Cove Apartments

Address of Project: 7674 East Brainerd Road, Chattanooga, Hamilton County, Tennessee

Brief description of project: The proposal intends to develop five (5) three-story apartment structures containing 120 residential units, a single-story clubhouse and a single-story maintenance building on an approximate 5.62-acre parcel of land identified in Hamilton County assessment documents as Tax Map #159P A 001.05. The subject property is located at 7674 East Brainerd Road in Chattanooga, Hamilton County, Tennessee (subject property). The subject property currently consists of undeveloped scrubland.

According to FEMA Flood Insurance Rate Map (FIRM) #47065C-0368F, dated November 7, 2002, the eastern portion of the subject property is located in Zone X, designated as an area outside the 100 and 500-year flood zones. The central and southern portions of the subject property are located in Zone X Shaded, designated as an area within the 500-year flood zone. The northwestern and southern portions of the subject property are located in Zone AE, designated as an area within the 100-year flood zone associated with The Mackey Branch. However, according to the Letter of Map Revision Based on Fill (LOMR-F) dated October 2, 2012 (LOMA 12-04-6919A) and Survey Drawing to Support Requested LOMR-F prepared by Thompson Engineering, dated August 2, 2012, the majority of the property has been raised by fill as of January of 2004 and is no longer within the 100-year flood zone. The only portion of the property remaining in the 100-year flood zone is a small detention area located in the northern corner of the parcel.

FFRMS: Modernizing the Regulatory Floodplain

100-year & 500-year Floodplains (Current Part 55 Standard)

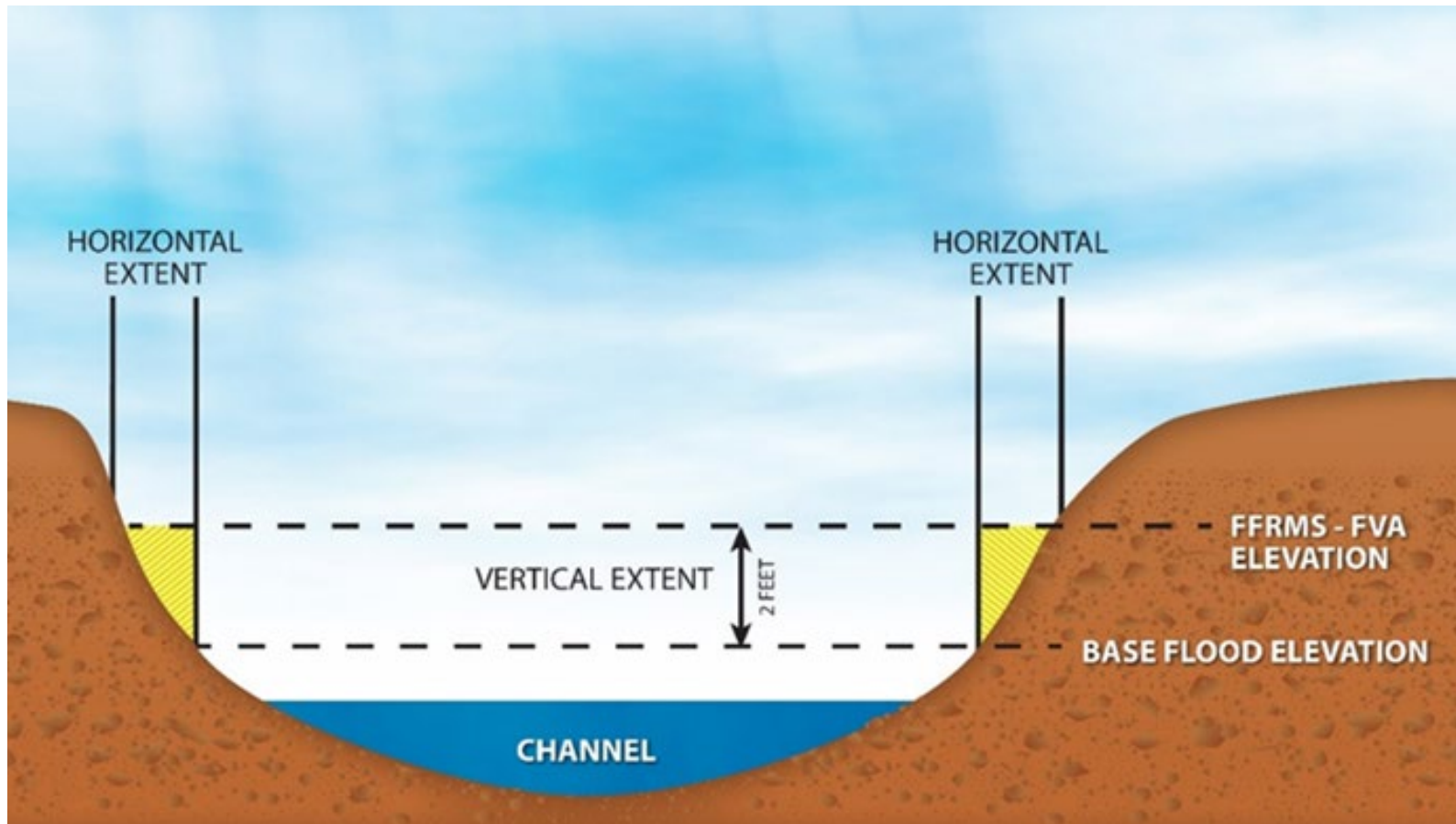
- Based on FEMA's Flood Insurance Rate Maps (FIRMs)
 - **100-year floodplain**
 - Zones beginning with A or V
 - The 1% annual chance floodplain
 - Base Flood Elevation (BFE)
 - **500-year floodplain:**
 - The 0.2% annual chance floodplain
 - Zone B or Zone X (shaded)
 - FEMA maps do not take climate change or new development into account and maps may be outdated.

FFRMS floodplain

- Areas subject to flooding as determined using 1 of 3 methods:
1. Climate Informed Science Approach (CISA)
 2. 0.2-percent-annual-chance Flood Approach (0.2PFA)
 3. Freeboard Value Approach (FVA)
- Designed to account for changes in risk over the projected life of a structure or facility, or to account for future risk
 - Properties within the 100-year floodplain have a 26% chance of flooding over the life of a 30-year mortgage. Climate change is expected to exacerbate that risk.
 - Shift in focus from 'flood control and protection' to 'flood risk management'

The FFRMS Floodplain

Under this proposed rule, HUD would regulate based on the “FFRMS floodplain,” which defines an expanded floodplain that takes future flood risk into account.



Three Proposed Approaches to Defining the FFRMS Floodplain and Utilization in Project Design

E.O. 13690 provides flexibility and requires agencies to select one of these three approaches for defining the FFRMS floodplain.

CISA

Climate-Informed Science Approach

- The elevation and flood hazard area that result from using the best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science
- This approach better accounts for future conditions caused by climate change
- CISA data will be able to be found in publicly available maps; however, most of the U.S. will not be covered by these at the time this rule goes into effect; a WH interagency working group is developing a web-based screening tool for CISA, which will increase the availability of CISA data significantly

0.2PFA

0.2 Percent Flood Approach (500-year Floodplain)

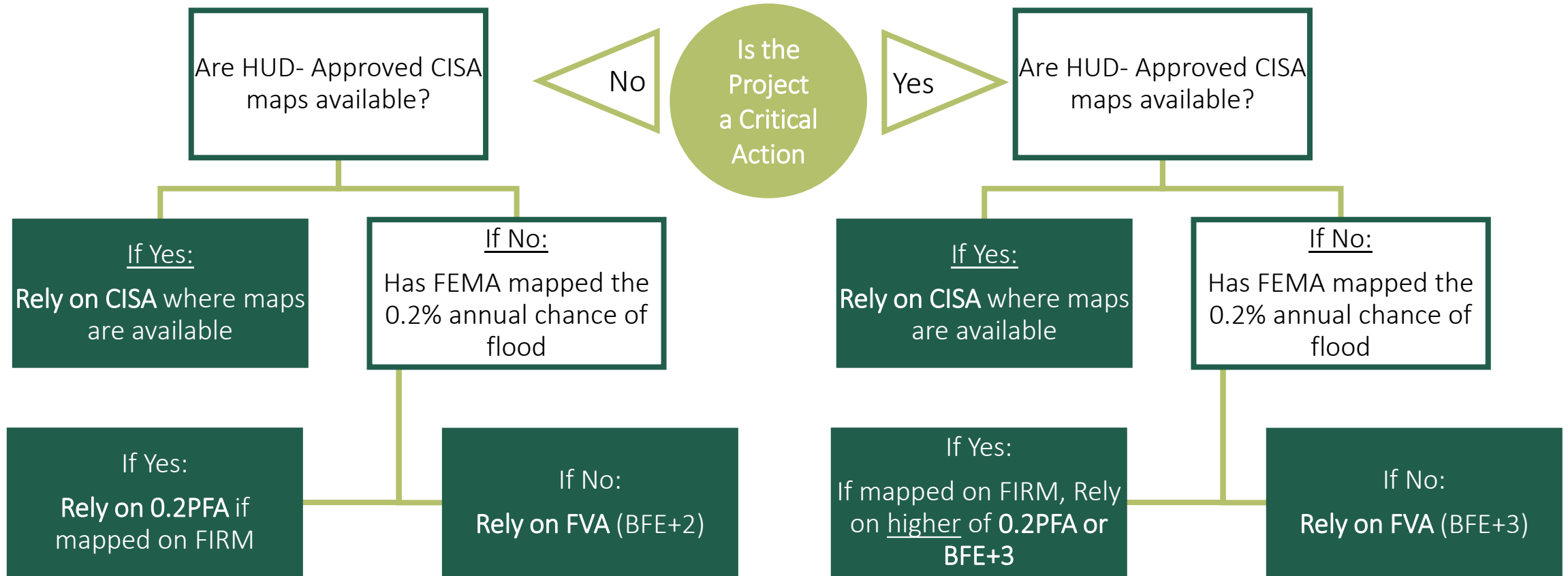
- The building elevation must, at least, meet the 500-year, or 0.2 percent-annual-chance, flood elevation
- Based on FEMA maps

FVA

Freeboard Value Approach

- The building, at least, must be two or three feet of elevation, depending on the criticality of the use, above the 100-year, or 1 percent-annual-chance, flood elevation
- Based on best available information

Flexibility: Alternative Means to FFRMS Compliance

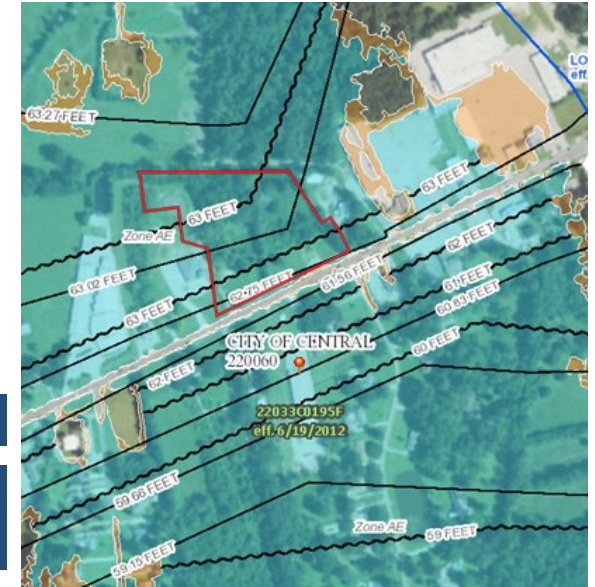
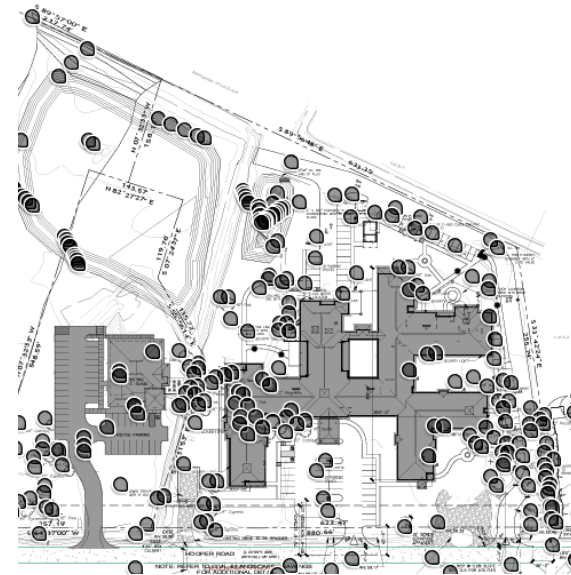


Critical Action is defined as that by which even the slightest risk of flood is too great and therefore requires higher protective standards (fire stations, assisted living centers, hospitals, etc.)

Case Study

Case Study: New Construction

- The BFE ranges between 62.5 feet along the southern property boundary to 63.27 feet along the northern property boundary.
- The 0.2% annual chance flood (500-year floodplain) elevations are between 63.2 southern property boundary to 63.7 northern property boundary.
- BFE based on the Flood Insurance Study.



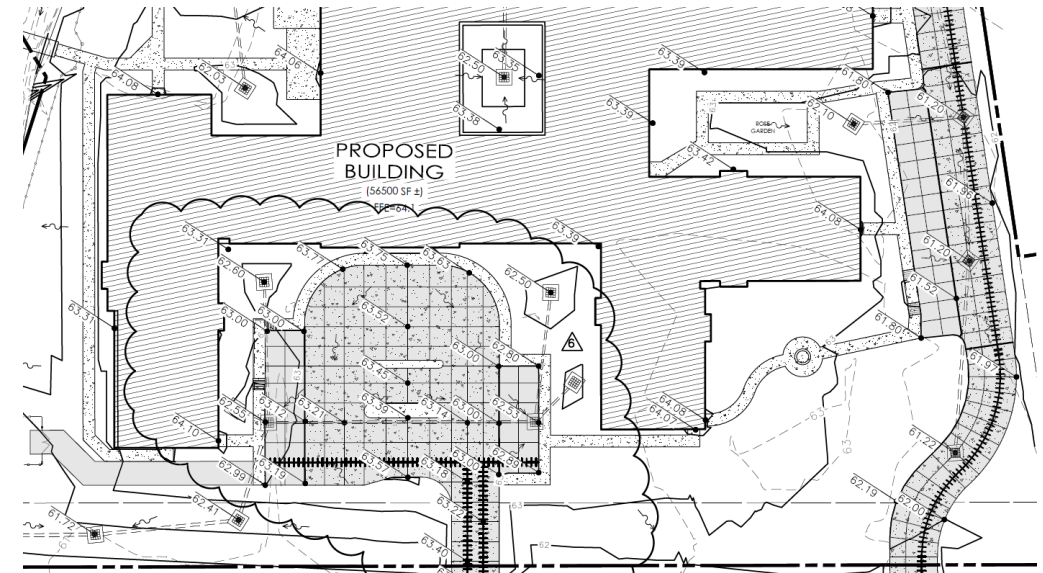
Case Study: New Construction

FFRMS

- CISA Maps: Not able to evaluate.
- 0.2% Flood Approach: Ranges from 63.2 to 63.7 feet.
- Freeboard Value Approach:
 - 62.5 feet + 3 feet = 65.5 feet
 - 63.27 feet + 3 feet = 66.27 feet

Actual

- Elevation Certificate indicated the lowest adjacent grade is 63.2 and the lowest floor elevation is 64 feet. The lowest elevation of machinery servicing the building is proposed to be 64 feet.
- According to the Drainage Plan, the entrance drive/emergency access to the facility has been designed to be elevated above at least 62.5 feet, which is at the BFE in this area of the subject property.
- The remaining grade surrounding the proposed building is designed to allow for positive site surface drainage away from the building.



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Industry Concerns: CISA & FVA

Industry CISA Concerns



- Who at HUD will approve these maps?
 - Who is preparing the CISA maps?
 - What qualifications will they have?
 - What is the source data for preparing the maps?
 - How do stakeholders fairly evaluate a Proposed Rule when they cannot review CISA mapping tools?
 - Are any FEMA Floodplain Determinations still applicable?
- Cannot use CISA maps if they are lower than the current FIRM or Flood Insurance Study.
 - Why?
 - CISA methodology would be required to define the FFRMS floodplain.
 - Are CISA maps open and available to the public for review and comment like FEMA maps?

Elevating and Floodproofing

Elevation Requirements for Part 55

- Under the proposed rule, new construction and substantial improvement projects within the FFRMS floodplain would be required to elevate to or above the elevation of the FFRMS floodplain.
 - This applies to all HUD programs except the Housing Trust Fund and FHA Mortgage Insurance for single family housing.
- Substantial improvement defined in 24 CFR 55.2(b)(10):
 - The cost of repairs is equal to or greater than 50% of the market value of the structure before repairs; or
 - An increase of more than 20% in the number of units
- Any repairs, rehabilitation, or improvements not meeting the definition of substantial improvement are considered minor.

Standards Elevating and Floodproofing

Property type	Activity	Elevation	Floodproofing alternative permitted**
Residential	New construction & Substantial improvement*	Required to the elevation of the FFRMS floodplain	Only for mixed-use buildings where all residential is elevated
	Minor improvements & other	Not required	N/A
Non-residential	New construction & Substantial improvement*	Required to the elevation of the FFRMS floodplain	Yes
	Minor improvements & other	Not required	N/A
FHA Single Family	New construction & Substantial improvement*	Required to BFE+2	No
	Minor improvements & other	Not required	N/A

*As defined in 24 CFR 55.2(b)(10). Any other repairs, rehabilitation, etc. not meeting this definition are considered minor.

** Floodproofing can be done per FEMA's regulations at 44 CFR 60.3(c)(3)(ii) and 60.3(c)(4)(i).i

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Industry Concerns: Challenges with Elevation

Industry Elevation Concerns



- Cities may reject proposals to elevate above adjoining sites
 - Does your city know about the proposed rules?
 - Are they allowed to use CISA instead of FEMA maps?
- May reduce density on the site and increase retention requirements
- Are sub-rehabs possible with these changes?

- Negative impact on adjoining sites
- Significant cost impact for soil import and additional earthwork
- Creates an unusual site condition and reduction in land valuation
- Additional costs will be passed on to residents with higher rents

Additional Changes

Additional Changes

Online Noticing

- The proposed rule allows Responsible Entities to post floodplain notices on an appropriate government website as an alternative to publication in local news media if the website is accessible to individuals with disabilities and provides meaningful access to individuals with Limited English Proficiency.

Notification of flood hazards

- Proposed rule would strengthen notice standards for buyers and renters.

Flood insurance

- Rule would maintain existing flood insurance requirements for properties in the 100-year floodplain and encourages flood insurance for all properties in the newly-defined FFRMS floodplain.

Flood Insurance

CURRENT

- Required for any structure located in a Special Flood Hazard Area (SFHA); i.e., the 100-year floodplain.
- ORCF HANDBOOK - Section II, Ch. 14.7.H: Requires flood insurance in an amount equal to the greater of:
 - The maximum available under the National Flood Insurance Program (NFIP): \$500,000 for structures and \$500,000 for contents; or
 - 100% of replacement cost of Improvements; and Business Income coverage
- Every Section 232 application must include a Standard Flood Hazard Determination Form with “life-of-loan” monitoring and coverage.

PROPOSED

- Required for any structure that is located within the SFHA (*no change*)
- HUD strongly encourages that flood insurance be obtained and maintained for all HUD-assisted structures in the FFRMS floodplain, sites that have previously flooded, or sites in close proximity to a floodplain.
- Clarifies that HUD (or responsible entity) may impose flood insurance requirements that exceed the minimums established by the Flood Disaster Protection Act of 1973

Additional Changes

- **LiMWA**
 - LiMWA: the inland limit of the area expected to receive 1.5-foot or greater breaking waves during a 100-year flood
 - This rule would extend same protections that apply in the coastal high hazard area (Zone V) to projects in the LiMWA (aka “coastal AE zone”).
- **Floodways**
 - Currently, Part 55 prevents any improvements – including flood control measures – within existing HUD-assisted and HUD-insured housing with onsite floodways.
 - The proposed rule provides new exceptions and considerations to permit a broader range of compatible land uses in floodways, such as removal of existing structures or improvements.
 - These revisions are intended to grant HUD grantees the flexibility to conduct non-residential improvements and actions within floodways in limited situations.





Industry Concerns: Notification and Insurance

Industry Concerns – Insurance



- HUD may require flood insurance beyond the minimums established in the FDPA or by a state, locality, or Tribe?
- Nothing in the new rule requires flood insurance outside of the SFHA, but HUD strongly encourages that flood insurance be obtained and maintained for all structures within the FFRMS floodplain.
- The LEAN Guide, Chapter 14, already contains some elements of this.

- Define “larger structures in more expensive areas?”
- How would HUD determine if flood coverage equivalent to the full replacement cost of the structure would be required?
- Proposed rule does not create new requirements, but a “roadmap to complying with this part” to assist practitioners.

Incidental Floodplain Exceptions

Incidental Floodplain Exceptions

REMOVED

- The exception for sites where FEMA has issued a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR) would be removed.
 - This is a FEMA determination based on the location being outside of the SFHA or above the BFE but does NOT indicate whether the location is or is not within the FFRMS floodplain.
- Remove exception of conditional LOMAs and conditional LOMRs because they incentivize adding fill in a floodplain in a manner that reduces floodplain function in adjoining areas.
 - HUD proposed to disincentivize the use of sitewide fill and require the completion of the 8-Step decision making process prior to adding fill to modify a floodplain.

Incidental Floodplain Exceptions

ADDED FLOODWAY EXCEPTION

- Where all structures and most improvements are removed from the floodway and a permanent covenant would prevent future development or most new improvements in the floodway and/or wetland.
 - Would combine aspects of the existing exceptions for floodplain restoration activities and incidental floodplains.
 - Would allow limited improvements in the floodway, including:
 - Functionally dependent uses
 - Utility lines
 - De minimis improvements including landscaping, sports courts, or trails
 - Minimal ground disturbance or placement of impervious surfaces to ensure accessibility where compliant with local code and does not increase flood risk.
 - Removal of existing structures or improvements
 - Would require the 8-step decision making process for projects with onsite floodways.

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Industry Concerns: Removing LOMA or LOMR Option

Industry Concerns – LOMR Exception for 8-Step Process



- Creates an Unnecessary Administrative Burden on Borrowers and Lenders
- FEMA, Civil Engineers and the Cities already provide the necessary oversight of Floodplain changes
- Adding HUD and the Army Corps of Engineers creates an unnecessary bureaucratic process.
 - This appears to be the only actual impact from this particular proposed rule.

- Propose rule cites one reason for removing exception- that it incentivizes the addition of fill in a floodplain
 - Isn't the addition of fill in floodplains cited throughout the proposed rule as necessary – elevate 3 feet?
 - Why does proposal disincentivize the use of fill in this section – while requiring it everywhere else?
- How will it work from a timing standpoint?

8-Step Decision Making Process

8-Step Changes

- STEP 2: Allows for online publications of public notices on an appropriate government website.
 - Coordinate the 8-Step with any public engagement process associated with environmental justice.
- STEP 3: More in-depth review of the practicability of alternatives:
 - Alternative methods to serve the identical project objective to avoid floodplain and wetland impacts
 - Economic values should be considered.
 - Not required to consider alternatives locations but must include consideration of:
 - A determination to approve the request without modification;
 - A determination to approve the request with modification; and
 - A determination not to approve the request.
- STEP 4: Additional evaluation required to include impacts related to future climate-related flood levels, sea level rise, and the related increased value of beneficial floodplain and wetland functions.

8-Step Changes

- STEP 5:
 - Elevation requirements must be documented on an Elevation Certificate or a Floodproofing Certificate.
 - Residential structures cannot have units below the FFRMS. Floodproofing can only be used on residential structures if there are no units below the FFRMS. Unlikely to apply to critical actions since typically single-story.
 - Minimization techniques – stormwater management and green infrastructure; adjusting the project footprint; resilient building standards
 - Restoration and preservation
 - Restore means to reestablish a setting or environment in which the natural and beneficial values of the floodplains and wetlands could again function.
 - Preserve means to prevent modification to the natural floodplain or wetland environment, or to maintain it as closely as possible to its natural state.
 - Conservation easements
 - Appropriate and compensatory mitigation
 - Planning for resident's and occupants' safety

Existing Nonconforming Sites

Existing Nonconforming Sites

The Assistant Secretary for Community Planning and Development may approve HUD assistance or insurance to improve an existing property with ongoing HUD assistance or mortgage insurance if the following conditions are satisfied:

- HUD completes an Environmental Review pursuant to Part 50, including the 8-Step decision making process that:
 - Documents that it is not practicable to transfer the HUD assistance to a site with lower flood risk under existing program rules, financial limitation and site availability; and
 - Mandates measures to ensure that the elevated flood risk is the only environmental hazard or impact that does not comply, or that requires mitigation to comply with HUD's environmental requirements.
- The proposed project incorporates all practicable measures to meaningfully reduce flood risk and increase the overall resilience of the site, including but not limited to:
 - Elevation or floodproofing all structures in the FFRMS floodplain
 - Removing all residential units from the floodway
 - Identification of evacuation routes out of the FFRMS floodplain
 - Other measures to minimize flood risk and preserve the function of floodplain and any impacted wetlands.



Industry Concerns: 8-Step & Other

Industry Concerns – 8-Step Process & Other



- Will an 8-step now be required on all sites being elevated out of the FFRMS floodplain?
 - Isn't this basically going to be the 500-year floodplain?
 - Imagine how many projects will be affected by this new requirement...
- Damage to surrounding properties from increased runoff due to modification of a subject site must be analyzed.
- A FEMA Elevation Certificate is going to be required when CISA mapping is used?
- Define Ingress/Egress...
- Define "Proximity to Dams and Levees"

Locations for Additional Information

- Notice of Proposed Rulemaking, including full proposed rule:
<https://www.federalregister.gov/documents/2023/03/24/2023-05699/floodplain-management-and-protection-of-wetlands-minimum-property-standards-for-flood-hazard>
- General Rule Information:
https://www.hud.gov/program_offices/comm_planning/environment_energy/ffrms
- Additional FAQs:
https://www.hud.gov/program_offices/comm_planning/environment_energy/ffrms/faqs