NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

FOR SURVEYORS

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What will we discuss today?

- Floodplain mapping
- Floodplain management regulations
- Flood insurance
- FEMA’s Elevation Certificate
- Letters of Map Change (LOMC)
Did you know?

- Floods are the most common & costly natural disaster in the United States.
  - Many homeowners & other property owners are often unaware that their property is flood-prone
- Before most forms of Federal disaster assistance can be offered, the President must declare a major disaster.
- Homeowners’ insurance policies generally do not cover flood losses.
- Flood insurance claims are paid whether or not a disaster has been Presidential declared.
- The most common form of Federal disaster assistance is a loan, which must be paid back with interest.
- Over the life of a 30-year mortgage, there is a 26% (or 1 in 4) chance that a building in a floodplain will experience a flood that will equal or exceed the 1%-annual-chance flood (100-year flood).
- Approximately 25% of all claims paid by the NFIP are for policies outside of the mapped floodplain.
National Flood Insurance Program (NFIP)

- Federal program
- Enables residents in participating communities to purchase insurance as a protection against flood losses
- Makes residents eligible for additional forms of disaster assistance.
- The NFIP is administered:
  - Nationally by the Federal Emergency Management Agency (FEMA)
  - Statewide by the Ohio Department of Natural Resources’ Floodplain Management Program (FMP)
  - Locally by Counties (unincorporated areas) & Municipalities
- 753 communities within Ohio participate in the NFIP.
NFIP Participation

- NFIP Participation is VOLUNTARY
  - Community agrees to adopt & administer floodplain management regulations that are compliant with the minimum federal criteria (44CFR60.3)
    - Administer means to implement a permitting process that ensures development in Special Flood Hazard Areas is constructed in compliance with these regulations (44CFR60.3(b)(1))
  - Community must designate an official responsible (FLOODPLAIN MANAGER) for administering a floodplain development permitting process
    - The Floodplain Manager is often the CEO of the community, Building Official/Inspector, County/City Engineer, Planning Commission Director, Safety Service Director, City/Village Administrator, Mayor/County Commissioner, Clerk, etc…
Roles

**Floodplain Manager**

- Review Development & ISSUE/DENY Permits for actions in Flood Hazard Areas
  - Focus on new & existing development, structural & nonstructural
- Obtain & use “best available data”
- Assist applicants in use & interpretation of flood hazard information
- Provide technical assistance
- Interpret floodplain boundaries
- Provide flood elevation data
- Review H&H
- Issue or deny floodplain development permit
- Inspect floodplain development
- Require as-built or floodproofing certification
Roles

Floodplain Manager (cont…)

- Maintain records/evidence that development complies with local, state, & federal criteria
- Perform damage assessment, when necessary
- Develop enforcement & violation remedy procedures
- Coordinate with ODNR & FEMA for map & study accuracy & updates
- Identify mitigation opportunities
  - A FLOODPLAIN MANAGER must be able to:
    - Understand the community’s locally adopted floodplain management ordinance/resolution
    - Be able interpret data in the Flood Insurance Study (FIS) & on the Flood Insurance Rate Maps (FIRM)
Additional NFIP Roles...

- **Lenders**
  - Finance private & community development through loans, mortgages, etc.
  - Must require the purchase of flood insurance during the term of the loan for all structures in the Special Flood Hazard Area (SFHA)
    - Legally responsible for making determination if structure is located in the SFHA

- **Insurers**
  - Write flood insurance policies (underwritten by the federal government)
  - Assist in managing private & public flood loss through awareness, outreach & marketing of flood insurance
Additional NFIP Roles…

➤ **Surveyors**

- Acquire structural or site elevation data to verify compliance or support floodplain mapping procedures
- Verify elevation of structure’s lowest floor
  - Elevation Certificate (EC)
    - EC is used to verify compliance during permit review process
- Verify flood map accuracy
- Initiate changes to FEMA maps (i.e. Letters of Map Change)
NFIP Tools

The National Flood Insurance Program, or NFIP, balances three related areas that must support each other.

- Flood Hazard Mapping
- Floodplain Management
- Flood Insurance
NFIP MAPPING
Identification of flood hazards serves many important purposes:

- Creates an awareness of the hazard, especially for those who live & work in flood-prone areas
- Provide States & communities with the information needed for land use planning, to reduce flood risk to floodplain development & implement other health & safety requirements through codes/regulations
- Information can be used for emergency management
NFIP Mapping

Federal (FEMA)

• Required by law to identify risk & map the Nation’s flood-prone areas
• Provide funding for map production to States & contractors

Local

• Properly interpret FIRM & FIS
• Review current/new flood maps
• Maintain copies of Letters of Map Change (LOMC) for the community
• Submit any mapping needs to Ohio DNR
NFIP Tools

- Maps
  - Identify the hazard areas
  - Establish boundaries for floodway & fringe areas
    - SFHAs are the blue shaded areas on FIRMs
    - SFHAs represent the area of the 1%-annual-chance flood & are designated as Zone A or Zone AE on the FIRM

- Flood Insurance Study (FIS)
  - Hydrology (flow & frequency)
  - Hydraulics (conveyance, velocity & elevations)
  - Insurance risk zones
  - Flood elevation profiles
  - Floodway Data Tables
  - Hydrologic & Hydraulic Analysis
    - Data in FIS is ALWAYS more accurate than on the FIRM
What is the 100-year flood?

- The “true” 100-year flood is a dynamic concept that changes with changes in the watershed, climate, etc.
- The “regulatory” or base flood is a fixed value based on the effective FIS.
- The Base Flood Elevation (BFE) is the regulatory flood elevation from the FIS or FIRM.
Floodplain

Together the Fringe & Floodway comprise the SFHA.

The Fringe is:

- part of the floodplain outside of the floodway that will be inundated by the 1%-annual-chance flood.
- area of slow-moving or standing water (typically).

- Development in the fringe will not normally interfere with the flow of water.
- Floodplain regulations for the flood fringe allow development to occur but require protection from flood waters through the elevation of buildings above the 100-year flood level or dry floodproofing buildings so that water cannot enter the structure.
What is a Floodway?

- Floodway is the channel & adjacent land area reserved to convey the base flood discharge

- **Cumulative** impact of floodplain development limited to 1 foot at any point

- If entire floodplain outside the floodway were filled, no more than a 1-foot rise would occur as a result of the fill

- AKA: extremely hazardous area characterized by moderate to high velocity flood waters, high potential for debris & high erosion.
Progression of the FIRM...
Progression of the FIRM...

Next version
- Map Modernization
- DFIRM
- Most common
- GIS Product
- Digital orthophoto basemap
- Seamless countywide coverage
Progression of the FIRM...

Newest version

- RiskMAP
Flood Insurance Rate Map (FIRM) Zones

**Zone A**: Special flood hazard areas inundated by the 100-year flood; base flood elevations are not determined.

**Zones A1-30 & Zone AE**: Special flood hazard areas inundated by the 100-year flood; base flood elevations are determined.

**Zone AO**: Special flood hazard areas inundated by the 100-year flood; with flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths are determined.

**Zone AH**: Special flood hazard areas inundated by the 100-year flood; flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations are determined.

**Zone A99**: Special flood hazard areas inundated by the 100-year flood to be protected from the 100-year flood by a Federal flood protection system under construction; no base flood elevations are determined.

**Zone B & Zone X (shaded)**: Areas of 500-year flood; areas subject to the 100-year flood with average depths of less than 1 foot or with contributing drainage area less than 1 square mile; & areas protected by levees from the base flood.

**Zone C & Zone X (unshaded)**: Areas determined to be outside the 500-year floodplain.

**Zone V**: Coastal special flood hazard area subject to a 100-year flood from velocity hazard (wave action); base flood elevations are not determined.

**Zone VE and V1-30**: Coastal special flood hazard area subject to a 100-year from velocity hazard (wave action); base flood elevations are determined.
Identifying Your Map

➢ Title Block
  • Effective/Revision Date
  • Community Identification Number
  • Panel Number
Identifying Your Map

- Title Block
  - Effective/Revision Date
  - Community Identification Number
  - Panel Number
Online Tools - NFHL

National Flood Hazard Layer (NFHL)

- [https://fema.maps.arcgis.com/home/webmap/viewer.html](https://fema.maps.arcgis.com/home/webmap/viewer.html)
- Represents the current effective flood data for the country - where maps have been modernized
- Digital database that contains flood hazard mapping data from the NFIP
- Compilation of effective FIRMs & LOMCs
- Updated as studies go effective
- Print out can be used as legal copy of FIRM
- Preliminary & Pending data can now be accessed via the GeoPlatform.
Online Tools – Map Change Viewer

- **Flood Map Changes Viewer**
  - [https://fema.maps.arcgis.com/apps/webappviewer/index.html?id=e7a7dc3ebd7f4ad39bb8e485bb64ce44](https://fema.maps.arcgis.com/apps/webappviewer/index.html?id=e7a7dc3ebd7f4ad39bb8e485bb64ce44)
  - Compares current effective flood data with preliminary flood hazard mapping
  - Print out can be used to help depict expansion or contraction of mapped flood hazard area
  - Comparison is not a legal copy of FIRM
Digital Data?

- Data can be used in combination with county data such as parcels to enable the Floodplain Manager to more easily make an in/out determination.

- Please note, GIS is not a legal flood map. The FIRM is still the legal flood map.
  - BFEs are shown on the FIRMs as whole numbers.
  - The FIS should still be consulted before making the determination.
Approximate A-Zones

What Are Approximate A-Zones?

- Due to the lack of published BFE data, approximate A-Zones could mean substantially more costly flood insurance policies.

- Approximate A-Zones mean a greater burden is placed on the permit official. Without a specified BFE, the permit official must use judgment to determine what constitutes “reasonably safe from flooding”.

- Without a published BFE, structures can’t be removed from the floodplain using the LOMA process as easily.
Approximate A-Zones

How Are Approximate A-Zones Determined?

- Hydrology
  - Regression Analysis (typically)
- Hydraulics
  - Predominantly automated (limited manual intervention)
  - Geometric model inputs derived from terrain data
  - No Structure Data
As floodplain mapping progresses, mapped Zone A areas are being replaced with model-backed A Zones

- More accurate than former methods of Zone A mapping
  - Former delineated using contours, soils mapping, etc…
- No regulatory BFE published on FIRM
- 100-year flood elevation data can be pulled from the model
- Can/should be used as Best Available Data, when no detailed study is available
FEMA Approximate A-Zones

How Can Effective Approximate A-Zone Models be Obtained?

- Effective Flood Insurance Study data can be requested from the FEMA Library using the FIS Data Request form.

- Full county datasets can be requested from the FEMA Library via External Data Request (EDR).

- ODNR, Floodplain Management Program may have the model.
How Can Effective DFIRM Databases be Obtained?

- Effective DFIRM databases can be downloaded using the newly updated FEMA Map Service Center

- DFIRM databases contain various spatial datasets
Local floodplain management regulations require that communities use “Best Available Data” to regulate local flood hazards.

When a community has Zone A areas without elevation &/or floodway data, the community shall obtain, review & reasonably utilize BFE & floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph 60.3 (b) (3), as criteria for requiring that new construction, substantial improvement, or other development in Zone A on the community's FIRM or Flood Boundary & Floodway Map (FBFM) meet floodplain management standards.

NFIP regulations require that BFE data be included within new subdivision proposals & other proposed developments greater than 5 acres or 50 lots, whichever is less.
Using Best Available Data

- Communities may use studies showing/data **HIGHER** BFEs, expanded SFHAs or expanded floodways as *Best Available Data* even if this information has not yet been formally approved by FEMA in revised effective floodplain mapping or a Letter of Map Change (LOMC).

- Communities may **NOT** use studies/data showing **LOWER** BFEs, reduced SFHAs or reduced floodways as *Best Available Data* until this information has been formally approved by FEMA in revised effective floodplain mapping or a LOMC.
New in Ohio: V Zones

- FEMA is introducing V Zones along Lake Erie & other Great Lakes.

- New development within newly designated V Zones must be constructed in compliance with V Zone standards.

- Existing development within newly designated V Zones:
  - with flood insurance policies will be rerated according to V Zone rates.
  - must be constructed in compliance with V Zone standards if substantially damaged or improved (i.e. damage or improved to 50% or more of their market value).
Map Change Lifecycle Overview

A flood map change typically takes 36 months or more. Understanding the process and communicating insurance options early and often is essential to helping your clients take action and secure coverage.

**30+ Months**
- FEMA works with community to update the Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM)
- Preliminary study and updated map issued (FIS & FIRM)
- Community Open House
- Public Review and Comment Period (90 Days)
- Community receives Letter of Final Determination

**6 Months**
- 6-month compliance period
- New Flood Map (FIRM) goes into effect

**Post-Effective Date**
- Lenders deliver letters to customers explaining their new or revised flood risk

Insurance agents contact local floodplain manager to learn about potential changes, and share info with impacted clients

Insurance agents conduct outreach to customers to review their insurance options

FEMA

= Client Touchpoint
Wave height coastal flood zones:
Runup Mapping

Wave runup depth ≥ 3 feet

100-year stillwater elevation

100-year wave runup elevation = BFE

100-year wave crest elevation

Inland extent of wave runup

Datum (e.g., NGVD, NAVD)
Designing & building a compliant building in a coastal high-hazard area

In VE Zones:

- Elevation must be based on data from the FIRM & FIS & certified by a qualified design professional

- DESIGN must be certified by a qualified design professional & performed using appropriate calculations & judgment

- Guidance: FEMA’s Coastal Construction Manual (FEMA 55), & companion publications
Differences in Development Requirements

**A Zones**
- Fill outside the floodway or which can be shown to not cause a rise to the BFE allowed.
- Fully-enclosed foundation wall (flood openings required) construction allowed.
- Lowest floor elevated to or above the base flood elevation (BFE).
- As-built lowest floor elevation required to be on file with permit records.

**V Zones**
- Fill not allowed for structural support of buildings.
- Open foundation on columns or piles free of obstructions or designed with break away walls.
- Bottom of lowest horizontal structural member to or above BFE.
- Professional Engineer or Architect shall certify the design, including wind loading, of the structure & be on file with the permit records.
In V Zones, buildings must be elevated on an open foundation (e.g., pilings, posts, piers, or columns) so that the bottom of the lowest horizontal structural member is located at or above the BFE.
MINIMUM NFIP REQUIREMENTS: A Zones

The lowest floors of buildings in zones AE, A1–A30, & A must be positioned at or above the BFE. Foundation walls below the BFE must be equipped with openings that allow the automatic entry of floodwaters so that interior & exterior hydrostatic pressures can equalize.
NFIP REGULATIONS
NFIP Regulations

- Floodplain management regulations are designed to ensure that new buildings & substantially improved existing buildings in flood prone areas are protected from flood damages.

- Contained in 44CFR60.3

- Must be legally enforceable
  - Community floodplain management regulations are usually found in: zoning ordinances, building codes, subdivision ordinance, sanitary regulations, & “stand alone” floodplain management ordinances.
NFIP Regulations

- Adopted locally by cities, villages, & unincorporated county areas
- Provide authority to regulate development
- Identify duties of the Floodplain Manager
- Depend on the type of flood hazard data that is provided to the community by FEMA.
- Apply to **ALL** development in the 100-year floodplain/1%- annual-chance floodplain/SFHA.
- Outline permitting & development review process, variance guidelines, enforcement procedures, & minimum criteria for compliance
Development that Must Be Reviewed Through the Floodplain Development Permitting Process

All development proposed within the floodplain, including:
- Man-made changes to improved or unimproved real estate, including but not limited to:
  - Mining
  - Dredging
  - Filling
  - Grading
  - Paving
  - Excavating
  - Drilling operations
  - Temporary/permanent storage of equipment or materials
Development that Must Be Reviewed Through the Floodplain Development Permitting Process

- Placement of new buildings & other structures including:
  - Tanks
  - Accessory structures
  - Manufactured homes
  - Methods of construction

- Additions, repairs or renovations to existing structures, when such actions are classified as substantial improvements
Development that Must Be Reviewed Through the Floodplain Development Permitting Process

- Repair & restoration of existing buildings that have been substantially damaged by any cause (flood, fire, wind, tornado, & other damaging events).
- Installation of water & sewer utilities, & other site improvements.
- Construction or modification of flood control works, including levees, floodwalls, & channels.
- Construction, modification/replacement of roads, bridges, & culverts.
- Any related activities that may affect the floodplain, especially those activities that may increase the level of the 100-year flood.
Regulations

- **Nonstructural** – development that does not involve a “building”, i.e. mining, dredging, filling, grading, paving, excavating, drilling operations, temporary/permanent storage of equipment or materials, installation of water & sewer utilities, & other site improvements, construction or modification of flood control works, including levees, floodwalls, & channels, construction, modification/replacement of roads, bridges, & culverts, etc…

- **GENERAL STANDARDS** *(apply to ALL development)*
  - be designed (or modified) & adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic & hydrostatic loads, including the effects of buoyancy
  - be constructed with materials resistant to flood damage
  - be constructed by methods & practices that minimize flood damages
  - be constructed with electrical, heating, ventilation, plumbing, & air conditioning equipment & other service facilities that are designed &/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

**AGRICULTURAL DEVELOPMENT IS NOT EXEMPT FROM LOCALLY ADOPTED FLOODPLAIN MANAGEMENT REGULATIONS**
Regulations

- **Residential** (Specific Standards)
  - Lowest floor including basement must be elevated to or above the BFE
  - Elevation on fill, posts, pilings, or solid foundation perimeter walls (i.e., enclosure below lowest floor)
  - Require an as-built survey to verify
  - FEMA Elevation Certificate recommended

- **Nonresidential** (Specific Standards)
  - Lowest floor including basement must be elevated OR dry floodproofed to or above the BFE
  - elevation on fill, posts, piers, pilings, or solid foundation perimeter walls; or
  - dry floodproofing: impermeable foundations, floodwalls, levees, flood shields
  - Dry flood-protection:
    - Must include utilities
    - Requires use of “Floodproofing Certificate”
    - 1 foot above BFE required for insurance break
Elevation – Compare Zones

A Zone
• No requirements

AE Zone
• Elevate/floodprotect lowest floor to BFE

AO Zone (either/or)
• Elevate/floodprotect to depth number
• Elevate/floodprotect 2 feet above HAG

• VE Zone
• Elevate on pilings/columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the BFE
• Space below the lowest floor must be either free of obstruction or constructed with nonsupporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind & water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

*Development standards are tied to level of detail that is provided on the FIRM*
Substantial Damage (50% Rule)

Substantial Damage

- When a Pre-FIRM structure (in the SFHA) is damaged to 50% (determined by the Floodplain Manager) or more of its market value by any means, it must be brought into compliance with community floodplain management.
  - Flood insured structures within the mapped floodplain that are substantially damaged (by flood) may be eligible for Increased Cost of Compliance (ICC).
Increased Cost of Compliance

- If a building is substantially damaged, or a repetitive loss structure:
  - An owner can apply for an ICC funds
  - ICC pays an additional (up to) $30,000, to mitigate structure (ex: floodproofing, relocation, elevation, demolition)

- Eligible:
  - Buildings in the SFHA in regular program communities that are covered by a flood insurance policy

- Ineligible:
  - Buildings under group flood insurance policy
  - Units under a condo unit owner policy
  - Buildings in emergency program communities
ICC & Post-Flood Mitigation

- **Floodproofing** - applies only to nonresidential buildings. For a building to be certified as floodproofed, it must be watertight below the BFE (i.e. the walls must be substantially impermeable to water & designed to resist the stresses imposed by floods)

- **Relocation** - involves moving the entire building to another location on the same lot, or to another lot, usually outside the floodplain

- **Elevation** – raising the building to or above the BFE

- **Demolition** - may be necessary in cases where damage is too severe to warrant elevation, floodproofing, or relocation; or where the building is in such poor condition that it is not worth the investment to undertake any combination of the above activities
Substantial Improvement (50% Rule)

Substantial Improvement

- When a Pre-FIRM structure (in the SFHA) is improved to 50% or more of its market value, it must be brought into compliance with community floodplain management regulations
  - Includes any reconstruction, rehabilitation, addition, or other improvement of a structure
    - (FEMA has provided specific guidance for compliance regarding lateral & vertical additions.)

Substantial Improvement does not, however, include either:

- Any improvement to correct existing violations of state or local health, sanitary, or safety code specifications
- Any alterations of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."
Floodplain Development Permitting

- Step 1: Identify the proposed development
- Step 2: Determine whether a Floodplain Development Permit is needed
- Step 3: Application review
- Step 4: Approve or Deny the permit
- Step 5: Perform inspections during construction
- Step 6: Acquire a completed Elevation or Floodproofing Certificate
- Provide a Certificate of Occupancy
Every Floodplain Development Permit file should contain:

- Completed SFHA development permit application
- Copy of the FIRM & FBFM for the proposed development
- Site plans, drawn to scale
- H&H, if necessary
- Inspection records
- As-built certification
- Record of issuance or denial
- Copy of the certificate of occupancy
- Any Letters of Map Change (LOMC) that have been issued for that property
- Any other related documentation
Common Permitting Mistakes

- Obtaining certified proposed lowest floor elevations, not certified as-built lowest floor elevations
- Not obtaining as-built certification
- Not requiring enough data from the applicant to adequately review the development for compliance
- Not maintaining sufficient records
Manufactured Homes

• Requirements for anchoring, tie down or permanent foundations requirements must be clearly stated in the permit. Authority for review & permitting has been transferred from the Ohio Manufactured Home Commission to the Ohio Department of Commerce Division of Industrial Compliance (ODC/DIC).

• Beginning January 21, 2018, the DIC regulates the installation & removal of manufactured homes inside and outside of licensed manufactured home parks

• Includes manufactured homes to be installed or removed from the SFHA

• Performance standards for compliance with floodplain management regulations has not changed
FLOOD INSURANCE
Flood Insurance

• Incentive for communities to adopt & enforce floodplain management regulations to reduce future flood risk for new construction in SFHAs.
• Helps protect property owners against flood losses.
• Serves as an alternative to disaster assistance & disaster loans.
Flood Insurance Basics

Where can flood insurance be purchased?
- Direct from FEMA
- Write-Your-Own (WYO) – most common
  - WYOs are participating property & casualty insurance companies that write & service the Standard Flood Insurance Policy in their own names.
  - The companies receive an expense allowance for policies written & claims processed.
  - The Federal Government retains responsibility for underwriting losses.
  - The WYO Program operates as part of the NFIP & is subject to its rules & regulations.

Who can purchase flood insurance?
- If the community participates in the NFIP, the following can purchase a federal flood insurance policy:
  - Owners
  - Renters
  - Owners of buildings in the course of construction
  - Condominium associations
  - Owners of residential condominium units

Waiting Periods:
- At closing – Immediately
- Required by lender due to map change – 1 day
- All others – 30 days

Regardless of Zone (i.e. flood insurance is available in Zone A’s or Zone X)
Mandatory Purchase

- Property owners within participating communities who have a mortgage through a federally regulated lender on a structure within the mapped flood hazard area are required to carry flood insurance throughout the duration of the loan.

- Property owner must carry flood insurance equal to one of the following:
  - Amount required for loan, i.e. outstanding principal balance
  - Maximum amount of coverage available under the NFIP
    - ($250,000 residential, $500,000 non-residential)
    - 100% Replacement Cost Value (not including the market value of the land)
    - Determining factor is lender
Flood Insurance

➢ Insurable?
  • Walled & roofed structures
  • Manufactured homes – IF anchored to foundation
  • Contents of structures – (owners & renters)
  • Building in the course of construction
  • Basements (*only the following*)
    • Damage to foundation
    • Specific machinery/appliances
      o Furnace
      o Water Heater
      o Food Freezer
      o Heat Pumps
      o Washer/dryer
      o Oil Tank
      o Circuit breaker
      o Central air conditioning

➢ NOT insurable?
  • Buildings completely over water
  • Unanchored manufactured homes
  • Motorized vehicles
  • Gas & liquid storage tanks outside buildings
  • Buildings principally below ground
  • Machinery & equipment in the open
  • Swimming pools, hot tubs, etc.
  • Crops
  • Gardens/Landscaping, etc.
Flood Insurance

Factors used for rating

- Flood zone
- Amount of insurance & deductible
- Lowest Floor Elevation vs. Base Flood Elevation
- Building Type
- Foundation
- Age (pre-/post-FIRM)
- Primary/Non-primary
Elevation & Insurance Costs

The illustration above is based on a minimum National Flood Insurance Program (NFIP) deductible & includes $250,000 building coverage only (does not include contents coverage) for a single-family, one-story structure in Zone AE (high risk). The graphics represent buildings with the lowest floor built at three different elevations: From left to right: at four feet below the BFE, at the BFE, & at three feet above the BFE.
Flood Insurance

Approximate A Zones

- If no BFE has been established, use best available data*
- With a BFE, an Elevation Certificate can be completed, & thus (potentially) lower the cost of insurance
- Without BFE, elevate at least 2 feet above the Highest Adjacent Grade (HAG) to obtain substantial cost reduction.

* Approximate methods for establishing a BFE may NOT be used for an EC. Only detailed studies (H&H) can be used to determine a BFE for an EC.
Flood Insurance

As-Built Certification

- Recommend use of FEMA Elevation Certificate (EC)
- Certifies the as-built lowest floor elevation of the structure
- Used by Insurance Agents to rate a flood insurance policy
  - Homeowners will use to purchase flood insurance, at a cheaper rate IF the EC proves the Lowest Floor is above BFE
- Floodplain Manager should keep all ECs on file, & use to show compliance with regulations
Grandfathering

For a pre-FIRM property newly mapped in the SFHA to be eligible for grandfathering, a flood insurance policy must be purchased/renewed before the new FIRM becomes effective

- If a policy was obtained before the effective date of a map change, the policyholder is eligible to maintain the prior zone as long as continuous coverage is maintained.
- The policy can be assigned to a new owner

Built in compliance

- Must provide the proper documentation to show structure was built in compliance as of the date of construction (as long as there has been no substantial improvement or damage since its construction)
Newly Mapped in SFHA

In recent years, FEMA sought to ease the financial impact of a map change by extending eligibility for a lower-cost Preferred Risk Policy (PRP) if a building outside of the SFHA was newly mapped into the SFHA.

Beginning April 1, 2015: Following a map revision, the owner of a building newly mapped into an SFHA will be rated according to a new procedure for newly mapped properties.

- Rate will be equal to the PRP rate, but with a higher Reserve Fund Assessment & Federal Policy Fee, for the first 12 months following the map revision.
- After the introductory year, the rate will begin its transition to a full-risk rate with annual rate increases of no more than 18 percent each year.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Property Owner Eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property newly mapped into an SFHA on or after April 1, 2015</td>
<td>Eligible for the Newly Mapped procedure if the policy becomes effective within 12 months of the map revision date</td>
</tr>
<tr>
<td>Property newly mapped into an SFHA on or after April 1, 2015, but not covered within 12 months of the map revision date</td>
<td>Property no longer eligible for Newly Mapped procedure. Post-FIRM buildings are eligible for grandfather rating. Pre-FIRM buildings must be rated using the new maps, and may be eligible for pre-FIRM subsidized rates.</td>
</tr>
<tr>
<td>Property newly mapped into an SFHA between October 1, 2008, and March 31, 2015, but not currently covered</td>
<td>Eligible for the Newly Mapped procedure if covered before April 1, 2016</td>
</tr>
<tr>
<td>Property with policy validly issued under the PRP Eligibility Extension prior to April 1, 2015</td>
<td>Renewed using the Newly Mapped procedure on the first effective date on or after April 1, 2015; policies for these buildings will receive the same premium as those newly issued using the Newly Mapped procedure</td>
</tr>
</tbody>
</table>

*Note that a new, Congressionally mandated, annual NFHA Surcharge ($25 for primary homes; $250 for all other buildings) will need to be applied to the final premium. This surcharge could increase the total out of pocket expense for the 2015 policy year by more than 18 percent over the previous year’s premium for some policyholders who had coverage prior to April 1, 2015.*
ELEVATION CERTIFICATE
Elevation Certificate

**SECTION A – PROPERTY INFORMATION**

<table>
<thead>
<tr>
<th>A1. Building Owner's Name</th>
<th>A2. Building Address (Including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A5. Latitude/Longitude: Lat.</th>
<th>Long.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A7. Building Diagram Number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A8. For a building with a crawlspace or enclosure(s):</th>
<th>A9. For a building with an attached garage:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Square footage of crawlspace or enclosure(s)</td>
<td>a) Square footage of attached garage</td>
</tr>
<tr>
<td>sq ft</td>
<td>sq ft</td>
</tr>
<tr>
<td>b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade</td>
<td>b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade</td>
</tr>
<tr>
<td>sq in</td>
<td>sq in</td>
</tr>
<tr>
<td>c) Total net area of flood openings in A8.b</td>
<td>c) Total net area of flood openings in A9.b</td>
</tr>
<tr>
<td>sq in</td>
<td>sq in</td>
</tr>
<tr>
<td>d) Engineered flood openings?</td>
<td>d) Engineered flood openings?</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:</th>
<th>A11. Indicate elevation datum used for BFE in Item B9:</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIS Profile</td>
<td>FIRM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)?</th>
<th>B7. FIRM Panel Effective/Revised Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION**

<table>
<thead>
<tr>
<th>B1. NFIP Community Name &amp; Community Number</th>
<th>B2. County Name</th>
<th>B3. State</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B4. Map Panel Number</th>
<th>B5. Suffix</th>
<th>B6. FIRM Index Date</th>
<th>B7. FIRM Panel Effective/Revised Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B8. Flood Zone(s)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B9. Base Flood Elevation(s) (Zone A, use Base Flood Depth)</th>
</tr>
</thead>
</table>

**FEMA Form 080-0-33 (7/15)**

Replaces all previous editions.
Elevation Certificate
Elevation Certificate

ELEVATION CERTIFICATE
BUILDING PHOTOGRAPHS

If using the Elevation Certificate to obtain NRP flood insurance, affix at least 2 building photographs below according to the instructions for Item #6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section #8. If submitting more photographs than will fit on this page, use the Continuation Page.

Photo One

Photo One Caption

Photo Two

Photo Two Caption

FEMA Form 366-3-32 (7/15) Replaces all previous editions. Form Page 5 of 6
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 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.*

- **C2.a**
- **C2.b**
- **C2.f-h** (determined by existing grade)

*NEXT HIGHER FLOOR

**BOTTOM FLOOR**

GRADE
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.*

GRADE

NEXT HIGHER FLOOR

BOTTOM FLOOR BASEMENT

(determined by existing grade)
**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.*

---

*(determined by existing grade)*
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.*

[C2.a, C2.b, GRADE, HIGHER FLOORS, BOTTOM FLOOR, NEXT HIGHER FLOOR, C2.f–h]
**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.*

---

*Note: Diagram includes labeled sections C2.a, C2.b, and C2.f-h, with annotations for grade, higher floors, and bottom floor (basement).
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).
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.

![Diagram](image-url)
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.
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.
All buildings (other than split-level) elevated on a sub-grade 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.)
Elevation Certificate

- Building on slab: C2.a, A zones, V zones, base flood elevation.
- Building with basement: C2.a, A zones, adjacent grade.
- Building on piles, piers, or columns: C2.a, A zones, V zones, base flood elevation.
Considerations…

Openings:

- An “opening” is a permanent opening that automatically allows the free passage of water in both directions without human intervention.

- Nonengineered Openings: The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening.


- A window, a door, or a garage door is not considered an opening; openings may be installed in doors.

- Openings shall be on at least two sides of the enclosed area. If a building has more than one enclosed area, each area must have openings to allow floodwater to directly enter.

- The bottom of the openings must be no higher than 1 foot above the higher of the exterior or interior grade or floor immediately below the opening.

Basement

- A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.
Who Needs an Elevation Certificate?

An EC documents the elevation of a building in the SFHA for:

- Floodplain Managers for administering locally adopted floodplain regulations
- Insurance Agents rating flood insurance policies
  - *The higher the lowest floor is above the BFE, the lower the risk of flood damage. Lower risk typically means lower flood insurance premiums.*

**EC Required**
- Post-FIRM buildings

**When is a NEW EC Required?**
- Substantially damaged structures brought into compliance
- Substantially improved structures
- EC is necessary to document new building characteristics & Lowest Floor Elevation

**EC NOT Required**
- For Zone A (where no BFE is available)
- Pre-FIRM buildings
  - Subsidized rates for pre-FIRM buildings are being phased out through annual premium increases.
  - An EC will be needed to calculate the property-specific full-risk rate.
  - Depending on the elevation, the full-risk rate could already be lower than the subsidized rate.

**When is a NEW EC NOT Required?**
- As long as the structure information on the EC is accurate (i.e., building has not changed)
Vertical Datums

- Typically, new mapping studies are converted to updated vertical datum

- Why is FEMA using NAVD88?
  - More compatible w/ modern surveying & mapping technologies like Global Positioning System (GPS)
  - More accurate than NGVD29, which is no longer supported by federal government
Vertical Datums

- Many existing documents (FIRM, FIS, Elevation Certificates, etc..) provide elevation values based on NGVD29 (*most commonly used by FEMA*).

- Determine what datums are used on the documents:
  - If the datums are the same, continue to use the maps & other information together.
  - If the datums are different, stop & convert all the elevation numbers to the same datum before using the information.
LETTERS OF MAP CHANGE (LOMC)
Letters of Map Change (LOMC)

General term used to refer to different types of revisions & amendments to FEMA maps that can be accomplished by letter. They include:

- Letter of Map Amendment (LOMA)
- Letter of Map Revision (LOMR)
- Letter of Map Revision based on Fill (LOMR-F)
- Physical Map Revision (PMR)

- Two Most Common Types
  - Letter of Map Amendment (LOMA)
  - Letter of Map Revision based on fill (LOMR-F)

These don’t just remove mandatory purchase requirements – they amend or revise community FIRMs.
Types of Map Changes

**Revisions** – maps changed to reflect physical changes to flood conditions (natural or man made)

**Amendments** – maps changed to reflect errors primarily due to limitations in map scale
How Does FEMA Process Map Changes?

- **Physical Map Revision (PMR)** – map is revised & entire panel(s) reprinted *(more than one map panel affected)*

- **Letter of Map Change (LOMC)** – area being changed is too small to show on map.
  - Letter explaining change becomes an official attachment to the map
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Stands For</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOMA</td>
<td>Letter of Map Amendment</td>
<td>Provides an administrative procedure for FEMA to review information submitted by a property owner who believes the property has been inadvertently included in a designated SFHA. A LOMA does not physically revise the FIRM.</td>
</tr>
<tr>
<td>LOMR</td>
<td>Letter of Map Revision</td>
<td>Officially revises the current FIRM to show changes in the limits of floodplains, floodways, corporate limits, or flood hazard risk zones. A LOMR physically revises the FIRM.</td>
</tr>
<tr>
<td>LOMR-F</td>
<td>Letter of Map Revision (based on fill)</td>
<td>Officially revises the current FIRM to show that a particular structure/property has been elevated by fill, and removed from being located in a designated SFHA. A LOMR-F physically revises the FIRM.</td>
</tr>
<tr>
<td>CLOMR</td>
<td>Conditional Letter of Map Revision</td>
<td>A conditional change of the current FIRM to show changes in the limits of floodplains, floodways, corporate limits, or flood hazard risk zones.</td>
</tr>
<tr>
<td>CLOMR-F</td>
<td>Conditional Letter of Map Revision (based on fill)</td>
<td>A conditional change and conditional exclusion from the SFHA of structures and legally described parcels of undeveloped land proposed to be elevated by fill, if built as proposed. A CLOMR-F will physically revise the FIRM after completion of the development. CLOMA-Fs are very rare.</td>
</tr>
<tr>
<td>PMR</td>
<td>Physical Map Revision</td>
<td>FEMA provides a reprinted FIRM incorporating changes to the limits of floodplains and/or floodways, corporate limits, or flood hazard risk zones.</td>
</tr>
</tbody>
</table>
Building Diagram for LOMA

SFHA from FIRM

(Edge of Floodplain) 100-Year Flood Elevation

Next Higher Floor

Bottom Floor (Basement)

BFE

LAG

Lowest Adjacent Grade (LAG)

Stream

Natural Grade
Letter of Map Amendment (LOMA)

- Used to correct NFIP maps that show small areas within the SFHA due to limitations of scale (or topographic definition)
  - Property is on natural ground & is at/or above the elevation of the 1%-annual-chance flood
  - Such cases are referred to as "inadvertent inclusions"
  - The MT-EZ Form is to be used for LOMA requests involving a single residential lot or structure.
  - The MT-1 Forms package is to be used for LOMA requests involving multiple residential lots or structures (& for LOMR-F requests).
**LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)**

**COMMUNITY AND MAP PANEL INFORMATION**

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>CITY OF ATHENS, ATHENS COUNTY, OHIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMUNITY NO.</td>
<td>39616</td>
</tr>
</tbody>
</table>

**LEGAL PROPERTY DESCRIPTION**

A portion of Firm Lot 40, Section 11, Town 8, Range 14, as described in the Deed On Order Of Sale, recorded as Document No. 001482, in Volume 140, Pages 14 through 16; A parcel of land, as described in the Warranty Deed, recorded as Document No. 003566, in Volume 147, Pages 3 through 5, all in the Office of the Recorder, Athens County, Ohio.

**AFFECTED MAP PANEL**

- NUMBER: 39616C
- DATE: 12/12/2013

**FLOODING SOURCE**: Hocking River
**APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY**: 39.355. -82.160
**SOURCE OF LAT & LONG**: ARCgis 10.1
**DATUM**: NAD 83

**DETERMINATION**

<table>
<thead>
<tr>
<th>LOT</th>
<th>BLOCK/SECTION</th>
<th>SUBDIVISION</th>
<th>STREET</th>
<th>OUTCOME WHAT IS REMOVED FROM THE SFHA</th>
<th>FLOOD ZONE</th>
<th>1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)</th>
<th>LOWEST ADJACENT GRADE ELEVATION (NAVD 88)</th>
<th>LOWEST LOT ELEVATION (NAVD 88)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>185 North Columbus Road Structure (Building A)</td>
<td>X (shaded)</td>
<td>657.2 feet</td>
<td>669.1 feet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Special Flood Hazard Area (SFHA)**: The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

**ADDITIONAL CONSIDERATIONS** (Please refer to the appropriate section in Attachment 1 for the additional considerations listed below)

**DETERMINATION TABLE (CONTINUED)**

**PORTIONS REMAIN IN THE SFHA STUDY UNDERWAY**

This document presents the Federal Emergency Management Agency’s determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) is not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map, therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 335-0377 (877-FEMAP, MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 1575 South N Streets, Alexandria, VA 22304-4695.

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration
For a LOMA to be issued by FEMA:

- the lowest adjacent grade/LAG (the lowest ground touching the structure) must be at or above the BFE.
- There is no review & processing fee for the FEMA review of a LOMA request.
- The requester is responsible for providing all of the information needed for FEMA's review of the request.
- Required Information includes elevation information certified by a Licensed Professional Surveyor.
Information Required

- Copy of recorded deed
- Tax Assessor’s Map
- Certified Site Plan/ Boundary Survey
- Copy of effective FIRM
- FIRM with property accurately plotted
- FIS Flood Profile
- Signed/ Dated Property Information Form
- Elevation Certificate
LOMA in Zone A (Approximate)

How does the applicant determine if they are eligible for the LOMA?

- Engineer or surveyor can check if any BFE data is available from another Federal, State, or local source (as required by 44CFR 60.3(b)(4)).
  - If none is available:
    - Request that FEMA estimate a BFE
      - Some Zone A areas are model-backed. If so, a 100-year flood elevation can be pulled from the model
    - Or, a site specific engineering analysis may be needed…
LOMA in Zone A (Approximate)

- **Detailed Methods ~ Analysis involves:**
  1) floodplain geometry (topography),
  2) flood discharge &/or volume (hydrology),
  3) flood height (hydraulics) is typically generated by computer modeling.

- Although there are different means to produce each component of the detailed analysis, the process yields a more accurate BFE.

- A BFE specified on an Elevation Certificate that will be used for insurance rating must be based on detailed analysis. In these cases, a BFE will be specified on the LOMA.
LOMA in Zone A (Approximate)

Also consider:

• **Simplified Methods** ~ In some situations, methods such as contour interpolation or data extrapolation can yield an acceptable level of accuracy for estimating a BFE. LOMA applications may be completed using a BFE that was approximated by simplified methods. For these situations, however, **no BFE will be specified on the LOMA**, only a determination that the structure is outside the SFHA. Preparing a LOMA application using a simplified method is likely to be less expensive for the property owner.
**LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)**

<table>
<thead>
<tr>
<th>COMMUNITY AND MAP PANEL INFORMATION</th>
<th>LEGAL PROPERTY DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMUNITY: MONTGOMERY COUNTY, OHIO</td>
<td>Lot 23, Beechwood Forest, Section One, as shown on the Plat recorded in Book 125, Page 14A, in the Office of the Recorder, Montgomery County, Ohio</td>
</tr>
<tr>
<td>COMMUNITY NO.: 3990775</td>
<td></td>
</tr>
<tr>
<td>AFFECTED MAP PANEL:</td>
<td></td>
</tr>
<tr>
<td>NUMBER: 39913C0307E</td>
<td></td>
</tr>
<tr>
<td>DATE: 1M2006</td>
<td></td>
</tr>
<tr>
<td>FLOODING SOURCE: UNNAMED FLOODING SOURCE</td>
<td>APPROXIMATE LATITUDE &amp; LONGITUDE OF PROPERTY: 39.6554, -84.1592</td>
</tr>
</tbody>
</table>

**DETERMINATION**

<table>
<thead>
<tr>
<th>LOT</th>
<th>BLOCK/SECTION</th>
<th>SUBDIVISION</th>
<th>STREET</th>
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<th>WHAT IS REMOVED FROM THE SFHA</th>
<th>FLOOD ZONE</th>
<th>1% ANNUAL CHANCE FLOOD ELEVATION (NADV29)</th>
<th>LOWEST ADJACENT GRADE ELEVATION (NADV29)</th>
<th>LOWEST LOT ELEVATION (NADV29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>1</td>
<td>Beechwood Forest</td>
<td>1536 Old Beach Court</td>
<td>Structure</td>
<td>X (ungraded)</td>
<td>-</td>
<td>652.4 feet</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Special Flood Hazard Area (SFHA): This SFHA is an area that would be inundated by the flood having a 1 percent chance of being equaled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS: (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

PORTIONS REMAIN IN THE SFHA:

ZONE A:

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described below. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(s) listed below is located in the SFHA, an area inundated by the flood having a 1 percent chance of being equaled or exceeded in any given year (base flood). This document confirms the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map. Therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAPS) or by letter addressed to the Federal Emergency Management Agency, 500 E Street, S.W., Room 4F-2, Washington, DC 20404.

[Signature]  
Doug Bollerman, P.E., Chief  
Hazard Identification Section, Mitigation Division

---

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAPS) or by letter addressed to the Federal Emergency Management Agency, 500 E Street, S.W., Room 4F-2, Washington, DC 20404.

[Signature]  
Doug Bollerman, P.E., Chief  
Hazard Identification Section, Mitigation Division
LOMA in Zone A (Approximate)

Also consider:

• **Out as Shown**~ When FEMA receives a LOMA request & agrees the structure is outside the SFHA after plotting the location on the FIRM, the determination “Out As Shown” (not “Removed”) will be issued. For these LOMA requests, the distance necessary to remove a structure or property from the SFHA will be handled by individual case request & no elevations are required. The LOMA-OAS Determination will state that the property or building is correctly shown outside
Letter of Map Amendment – Out As Shown (LOMA-OAS)

- **LOMA-OAS** is a determination made by FEMA for the property &/or buildings as to whether it is located within the SFHA.
  - Contact the lender & ask what documentation was used to make the determination.
  - Most lenders hire a flood zone determination company to do this work. Companies which belong to the National Flood Determination Association (NFDA) adhere to a code of ethics that requires them to determine if the insurable structure is in the SFHA.
  - Some firms only determine whether any portion of the lot is in the SFHA. – this means the structure may actually be well outside the SFHA, but the lender will require flood insurance as a condition of making the loan unless you provide clear visual evidence to prove otherwise.

- In some cases, even if the property owner provides clear evidence, the lender will still require a letter from FEMA verifying the information you provided.
  - In such cases, the property owner should apply for a LOMA & provide the visual evidence demonstrating that the property is “out as shown.”
Letter of Map Amendment – Out As Shown (LOMA-OAS)

- No technical data is required
- Property owner can apply for this free service directly to FEMA
- Steps to ensure efficient review & processing:
  1) Download the MT-EZ form from the FEMA website (easiest to just google “MT-EZ”)
  2) Fill out the first page & provide the property address & an abbreviated property description (eg., section/town/range, lat/long)
  3) Provide a copy of the effective FIRM/FIRMette for the property
  4) Provide a copy of a plat, parcel or tax map for your property
  5) Provide a copy of the property deed; make sure it is dated, signed & stamped
  6) If not included in one of the above documents, provide an aerial photo showing the SFHA & location of the structure
- Send this data to the LOMA processing center at the address provided.
- Typically takes less than 10 days for the determination but can be a month or more during peak periods
- If all of the documentation is in a digital format, the data can be submitted electronically by using the FEMA On-Line LOMA process.
- Even if FEMA approves the LOMA, a lender can still require flood insurance if they choose
### LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (OUT AS SHOWN)

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>WARREN COUNTY, OHIO (Unincorporated Areas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFFECTED MAP PANEL NO.:</td>
<td>390/S14E</td>
</tr>
<tr>
<td>DATE:</td>
<td>12/17/2010</td>
</tr>
<tr>
<td>FLOODING SOURCE:</td>
<td>TRIBUTARY TO TURTLE CREEK</td>
</tr>
<tr>
<td>APPROXIMATE LATITUDE &amp; LONGITUDE OF PROPERTY:</td>
<td>39.421, -84.678 SOURCE OF LAT &amp; LONG ARCGS 93 DATUM MAD 92</td>
</tr>
</tbody>
</table>

### DETERMINATION

<table>
<thead>
<tr>
<th>LOT</th>
<th>BLOCK SECTION</th>
<th>SUBDIVISION</th>
<th>STREET</th>
<th>OUTCOME WHAT IS OUTSIDE OF THE SFHA</th>
<th>FLOOD ZONE</th>
<th>1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)</th>
<th>LOWEST ADJACENT GRADE ELEVATION (NAVD 88)</th>
<th>LOWEST LOT ELEVATION (NAVD 88)</th>
</tr>
</thead>
<tbody>
<tr>
<td>57</td>
<td>3</td>
<td>Cedar Trace</td>
<td>637 Red Deer Drive</td>
<td>Structure (Residence)</td>
<td>X (unshaded)</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

### ZONE A

**PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)**

Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

### ADDITIONAL CONSIDERATIONS

(1) This document provides the Federal Emergency Management Agency’s determination regarding a request for a Letter of Map Amendment to the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) were not located in the SFHA, an area inundated by the flood having a 1% chance of being equaled or exceeded in any given year (base flood).

(2) Portions remain in the SFHA.

ZONE A

The National Flood Insurance Program map affecting this property depicts a Special Flood Hazard Area that was determined using the best flood hazard data available to FEMA, but without performing a detailed engineering analysis. The flood elevation used to make this determination is based on approximate methods and has not been formalized through the standard process for establishing base flood elevations published in the Flood Insurance Study. This flood elevation is subject to change.

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Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration
Letter of Map Revision- LOMR

- Letter from FEMA officially revising the FIRM
- Requirements for LOMRs in Title 44, CFR Part 65.6 & 65.7
- All requests to REVISE FIRMs must go through CEO (or designee) of local community …
- Revises one or more of the following on the community’s FIRM:
  - SFHA limits
  - BFE
  - Floodway limits
- Typically for small projects that do not increase flood heights or increase floodway limits
Letter of Map Revision- LOMR

- Larger scale projects may result in Annotated LOMR.
  - Typically 8 ½” x 11” showing revisions to FIRM
- All LOMR requests require engineering studies as specified in Part 65 of CFR
- Requests to revise floodways require public notification
- See FEMA Form MT-2
- See FEMA guide for local officials
  - Modified flood discharges (hydrology)
  - Modified hydraulics (elevations)
  - Better topography
  - Modified floodway
  - New bridges/culverts
  - Channel improvements/flood control projects
For small areas, earthen fill may have been placed during construction, thereby elevating a small area within the SFHA to an elevation that is at or above the BFE.

This construction may have taken place during the time the engineering study was being performed or subsequent to that study.

Because of the limited extent of the elevated area & the limitations of the map scale, it may not have been possible for FEMA to show this area as being outside the SFHA & so these areas have been incorrectly included in the SFHA on the FIRM. OR development was elevated on fill to or above BFE.
LOMR-F Requirements

LOMR-F Requests Involving One or More Structures:

• For a LOMR-F to be issued lowest adjacent grade of the structure be at or above the BFE.

• The participating community must also determine that the land & any existing or proposed structures to be removed from the SFHA are "reasonably safe from flooding."
  o Community Acknowledgement Form
LOMR-F Requirements

LOMR-F Requests Involving One or More Lots:

• For a LOMR-F to be issued by FEMA to remove the entire lot & structure, both the lowest point on the lot & the lowest floor of the structure must be at or above the 1-percent-annual-chance flood elevation

Review & Processing Fee*:

• FEMA charges a fee for the review & processing of LOMR-F requests.

➢ Required Information:

• The requester is responsible for providing all supporting information, including elevation information certified by a Licensed Land Surveyor.

*See fee schedule at https://www.fema.gov/flood-map-related-fees
Required Information

- Copy of effective FIRM
- Property Deed/ Subdivision Plat Map
- Form 2 OR Elevation Certificate
- Form 3 Community Acknowledgement Form
- Processing Fee*

*See fee schedule at https://www.fema.gov/flood-map-related-fees
Community Acknowledgement Form

- A signed community acknowledgement of fill placement form provides written assurance that the participating community has complied with the appropriate minimum floodplain management requirements.
  - Any existing or proposed structures within the area to be removed from the SFHA are (or will be) reasonably safe from flooding
  - as required under 44CFR60.3(a)(3)

- **Section A**, which pertains to requests involving the placement of fill, must be signed by a community official responsible for floodplain management to certify that the request meets all applicable NFIP regulations.

- **Section B** is required for all requests involving inadvertent inclusions in the regulatory floodway. It must be signed by a community official responsible for floodplain management to acknowledge the community's acceptance of a revision to a regulatory floodway within the community.
Online Letter of Map Change

- **Internet-based tool that allows applicants to easily request a Letter of Map Change (LOMC)**
  - Allows applicants to upload all information/supporting documentation
  - Ability to check application status online
  - Submit LOMC requests & pay any associated fees instead of filing the MT-EZ, MT-1 or MT-2 paper forms through the mail

- **Who can use the Online LOMC?**
  - Anyone, including:
    - Home or Property Owner
    - Owner’s Representative
    - Professional Surveyors
    - Professional Engineers
  - Certification by PE/PS is required for some supporting documentation, which may be scanned & uploaded by the applicant.

- **Benefits?**
  - Ability to save information & complete amendment or revision applications at the applicant’s convenience
  - Immediate receipt of a case number once the completed online application is submitted
  - Real-time updates on application status, inventory of all in-progress & previous applications submitted online
  - Convenient online payment of fees (if required)
  - Frequent applicants can manage multiple LOMC requests online
  - Clear & intuitive interface
  - More efficient communications with LOMC processing staff
Online LOMC

https://hazards.fema.gov/femaportal/onlinelomc/signin
eLOMA

Internet-based tool for licensed PS or PEs & other FEMA approved Certified Professional (CPs) to submit LOMA requests

Applications can be selected for audit

Benefits

Receive email/print a FEMA determination within minutes of submission (if all required information is provided & meets eLOMA criteria)

Submit requests for single or multiple residential lots or structures that are not considered to be within a coastal zone or modified by fill to raise the elevation of the structure

Check the status of an application, communicate required actions with FEMA point of contacts, & register & renew eLOMA license information within the tool.

Track all submitted applications & view saved eLOMA data for a period of 3 years

No fee to use the eLOMA tool or receive an eLOMA determination.
eLOMA vs Online LOMC?

**eLOMA**
- Web-based application
- Can be used by licensed PS, PE, & other FEMA approved Certified Professionals (CPs)
- For LOMA requests only (not within Zone V, an alluvial fan, or modified by fill to raise the elevation of the structure)
- Designed to generate a determination from FEMA within minutes of submitting required information & data for the request.

**Online LOMC**
- Web-based application
- Can be used by any applicant who would like to submit a LOMC request directly to FEMA - does not require a PS/PE
- For all types of LOMC requests
- Applicants may check the status of their application at any time
- Determination is not received until after FEMA reviews the supporting documentation & receives payment (if required). May take up to 60 days for amendment applications/90 days for revision applications.
Conditional Letters of Map Change

- Conditional Letter of Map Revision (CLOMR) & Conditional Letter of Map Revision based on Fill (CLOMR-F)
  - FEMA will review proposed developments & determine whether a map change would be approved if built as proposed
  - Use same forms as LOMR & LOMR-F
  - DO NOT officially change the FIRM
  - DO NOT supersede local permitting authority
  - Within 6 months after completion of project, a request for a LOMR/LOMR-F must be submitted for projects that change BFEs
  - Still have processing Fees*

*See fee schedule at https://www.fema.gov/flood-map-related-fees
Conditional Letters of Map Revision (CLOMR)

- Conditional Letter of Map Revision (CLOMR)
  - FEMA's comment on a proposed project that would affect the hydrologic &/or hydraulic characteristics of a flooding source & thus result in the modification of the existing regulatory floodway or effective BFEs.
  - There is no appeal period.
  - The letter becomes effective on the date sent.
  - This letter does NOT revise an effective FIRM, it indicates whether the project, if built as proposed, would or would not be removed from the SFHA by FEMA if later submitted as a request for a LOMR.
Conditional Letter of Map Revision based on Fill (CLOMR-F)

- FEMA's comment on whether a proposed project involving the placement of fill would exclude an area from the SFHA shown on the FIRM.
- There is no appeal period.
- The letter becomes effective on the date sent.
- This letter does NOT revise an effective FIRM, it indicates whether the project, if built as proposed, would or would not be removed from the SFHA by FEMA if later submitted as a request for a LOMR-F.
CLOMRs- What does FEMA look for?

- Key items required
  - Evaluation of alternatives
  - Individual legal notice to all impacted property owners
  - Concurrence of CEO of adjacent communities impacted by proposed actions
  - No structures impacted by proposed increases in flood heights
  - Hydrologic & hydraulic analyses
NFIP Reauthorization

- Congress must periodically renew the NFIP’s statutory authority to operate.
- On December 20, 2019, the President signed legislation passed by Congress that extends the NFIP’s authorization to September 30, 2020.
  - Congress must now reauthorize the NFIP by no later than 11:59 pm on September 30, 2020.
    - This is the 15th short-term NFIP-reauthorization since the end of FY17.
  - FEMA & Congress have never failed to honor the flood insurance contracts in place with NFIP policyholders.
  - Should the NFIP’s authorization lapse, FEMA would still have authority to ensure the payment of valid claims with available funds.
  - However, FEMA would stop selling & renewing policies for millions of properties in communities across the nation.
    - Nationwide, the National Association of Realtors estimates that a lapse might impact approximately 40,000 home sale closings per month.
Risk Rating 2.0

- Redesign of the risk rating system to improve the policyholder experience
- Goal is to make flood insurance significantly easier for agents to price/sell policies & help customers better understand their flood risk
  - Creates an individualized picture of a property’s risk
  - Provides rates that are easier to understand for agents and policyholders
  - Reflects more types of flood risk in rates
  - Uses the latest actuarial practices to set risk-based rates
  - Reduces complexity for agents to generate a quote
Additional Information

Ohio Specific Information:

- ODNR’s Floodplain Management Program
- Ohio Emergency Management Agency Mitigation Branch
  [https://sharpp.dps.ohio.gov/ohiosharpp/](https://sharpp.dps.ohio.gov/ohiosharpp/)

General Information

- Map Service Center [https://msc.fema.gov/](https://msc.fema.gov/)
- National Flood Hazard Layer [https://fema.maps.arcgis.com](https://fema.maps.arcgis.com)
- Association of State Floodplain Managers [www.floods.org](http://www.floods.org)
QUESTIONS?