

**ADMINISTRATIVE PROCEDURES FOR IMPLEMENTING THE FLOODPLAIN MANAGEMENT ORDINANCE NO. 736 OF THE CITY OF ST. MARY, MISSOURI.**

**BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF ST. MARY, MISSOURI, AS FOLLOWS:**

**SECTION I. DUTIES OF THE FLOODPLAIN ADMINISTRATOR**

The City Clerk shall be the Floodplain Administrator so designated by the Floodplain Management Ordinance No. 736, Article 3, Section B.

The Floodplain Administrator shall be well versed in the community’s floodplain regulations established in the Floodplain Management Ordinance No. 736. He/She shall review the flood development permit applications, conduct inspections, take enforcement actions when necessary, interact in variance and appeal processes, keep good records of all floodplain development, collect fees that may so be required, investigate complaints of violations, maintain and update administrative forms, coordinate map appeals and revisions, maintain floodplain maps and flood data and disseminate floodplain management information.

**SECTION II. FLOODPLAIN DEVELOPMENT PERMITTING SYSTEM**

The **FLOODPLAIN DEVELOPMENT PERMIT APPLICATION PACKAGE** must include all the required information, such as:

- |                                 |   |
|---------------------------------|---|
| -Floodplain Development Permits | -Floodproofing Certificates                                     |
| -Technical documentation        | -Plans and blueprints   |
| -Elevation Certificates         | -Any additional permits   |
| -Any additional reviews         | -Cost analysis for substantial improvements/substantial damages |

The **FLOODPLAIN ADMINISTRATOR** must be able to access the accuracy and completeness of the floodplain development permit application package and evaluate site plans, topographic data and building design plans. Special flood-related considerations during permit review are:

- |  |                                |
|--|--------------------------------|
| -Maintenance of unobstructed floodways | -Allowable floodway uses       |
| -Watercourse alterations               | -Nonresidential structures     |
| -Residential structures                | -Subdivisions                  |
| -Manufactured homes                    | -AO Zones (Shallow floodplain) |
| -Substantial Damage                    | -”No Rise” requirements        |
| -Substantial Improvement               |                                |

- **PLANS AND BLUEPRINTS**

- Review the site plans, grading and excavations plans and building design plans for:
  - -Completeness and clarity
  - -Existing and proposed topographic information, including spot elevations
  - -Boundaries of the floodway and the floodplain
  - -Building elevations for all structures showing the level of the base flood elevation (BFE)
  - -Proposed obstructions in the floodway
  - -Professional registered architect, engineer or land surveyor seal, if prepared by same
  - -Illustration of all proposed development
  - -Other considerations:
    - Anchoring requirements
    - Construction materials and methods
    - Utilities
    - Subdivisions
    - Encroachments
    - Elevations of the lowest floor
    - Floodways

- **TECHNICAL DOCUMENTATION**

- -Elevation/Floodproofing Certificates
  - **NFIP Elevation Certificate:** Provides a record of the as-built elevation of the lowest floor
  - **NFIP Floodproofing Certificate:** Provides a record of the height of floodproofing
- Ensure all necessary technical documents are included and properly certified
- Four conditions that necessitate the filing of certified documentation:

**1) Floodway Encroachment/"No Rise" Certificate**

If any or part of the proposed project is to be located in a designated floodway, the applicant must submit engineering documentation demonstrating that the proposed encroachment would not result in any increase in base flood heights. There is no form or special format for a "No-Rise" certificate. It may be a written statement, supported by hydraulic computations, signed by a registered engineer, who certifies that the development will result in a no increase in flood heights.

**2) Watertight Floodproofing**

In the event a nonresidential structure is to be floodproofed according to the NFIP standards, the applicant must submit a statement or floodproofing certificate from a registered professional engineer or architect certifying that he design and methods of construction meet these standards. Note: To receive a flood insurance rate based on 100 year flood protection the nonresidential structure must be dry floodproofed to an elevation at least one (1) foot above the base flood elevation to e rated at the base flood elevation rate (i.e. one foot of freeboard)

### 3) Enclosures Below the Base Flood Elevation (BFE)

When an applicant designs an enclosure below the BFE using an alternative to the minimum standard for openings prescribed in the NFIP requirements, a registered professional architect or engineer must certify the design accounts for the effects of hydrodynamic loads and buoyancy.

### 4) Wet Floodproofing

Wet floodproofing without a variance is limited to enclosed areas that are solely for parking, building access, or limited storage. These areas must: (1) be used **solely** for parking, building access, or limited storage; (2) be designed to allow for the automatic entry and exit of flood waters through the use of openings; and (3) be constructed of flood resistant materials.

- **ADDITIONAL PERMITS**

- The applicant should provide documentation to the FLOODPLAIN ADMINISTRATOR stating that the Federal and State permits have been applied for, and that the project will not proceed until those permits are issued.

The FLOODPLAIN ADMINISTRATOR may want to send copies of the application to other Federal and State agencies for their review.

- **ADDITIONAL REVIEW**

- Submit copies of complete application package to other community departments and possibly outside agencies for review
- If the project involves an alteration or relocation of a watercourse, the FLOODPLAIN ADMINISTRATOR must notify adjacent communities and the State NFIP coordinating agency and the FEMA Regional Office.

A proposal to change a floodway delineation or a floodplain boundary must be reviewed and approved by FEMA as well as by the community.

### STEP 2) Review the Floodplain Development Application Package for Compliance with the Technical Requirements of the Ordinance

The FLOODPLAIN ADMINISTRATOR may not have the expertise to independently review the technical information so therefore, the Board of Aldermen shall allow for consulting fees for engineering services as needed for this review. The hiring of a consultant shall go before the Board of Aldermen for their approval.

- Examine **SITE INFORMATION** in detail
  - The **site plan** should show
    - Location of property lines and proposed development
    - Streets
    - Watercourses
    - Existing and proposed structures
    - Topographic Information
    - Floodway and Floodplain boundaries
    - References to any special regulations due to location of property

- Assess the **ELEVATION DATA** provided in the application  
Scrutinize the elevations using the elevation data contained in the Flood Insurance Study (FIS) and other available local data
  - The flood-related delineation's must be consistent with the FIS data
  - No elevation data provided in unnumbered A zones: The developer, as a cost of doing business must provide elevations for development in unnumbered A zones. (See Appendices for additional guidance)
  - All elevation information should be accurate as the application package will serve as the record substantiating the issuance of the permit
 NFIP requirements also stipulate the lowest floor elevations be recorded
  
- Review **BUILDING DESIGN PLANS**
  - **Building plans** provide the basis for determining which regulations apply to the placement and construction of the proposed building.  
Building plans should reveal:
    - Type of structure and proposed use
    - The placement and elevation of the lowest floor
    - The type of foundation system
    - The existence of an enclosure below the BFE, if any
    - The elevation of the lowest floor in relation to the base flood elevation
    - The kind and potential use of the structure
    - The height to which a nonresidential structure is to be floodproofed
    - Anchoring systems to stabilize the structure during flooding
  
- Have **ENGINEERING DOCUMENTS** reviewed by the City Engineer
  - Four separate engineering document linked to the NFIP requirements are:
    - 1) Hydrologic and hydraulic calculations concerning proposed floodway encroachments
    - 2) Loading calculations and methods of construction relative to floodproofing
    - 3) Alternative designs for meeting the minimum opening requirements for enclosures below the BFE
    - 4) Design and methods of construction for breakaway walls that exceed OP loading resistance of twenty pounds per square foot

### **STEP 3) Coordinate Floodplain Development Permit Reviews with Other Community Officials**

The responsibility for actual permit review and issuance may reside in other administrative office within the city, such as public works, planning & zoning and/or departments. The **FLOODPLAIN ADMINISTRATOR** should work with these other departments and provide timely and accurate data.

### **STEP 4) Determine Compliance/Noncompliance**

**Acting on the Floodplain Development Permit Application: Approve/Deny the Application**

When review of the floodplain development permit application is complete, there are three options for action:

- 1) Approve the permit application
- 2) Conditionally approve the permit application
- 3) Deny the permit

### **APPROVAL OF THE PROPOSAL/PERMIT**

- If the proposal is found to be compliant, then the FLOODPLAIN ADMINISTRATOR must issue the permit.

The **floodplain development permit** becomes the official authorization from the community allowing the applicant to proceed based on the information submitted in the application package.

### **CONDITIONALLY APPROVE THE PERMIT**

The FLOODPLAIN ADMINISTRATOR may elect to approve a floodplain development permit only when certain development conditions are met. These conditions should be clearly indicated on all records of the floodplain development permit approval.

### **DENIAL OF THE PROPOSAL**

If the proposal fails to comply with the regulations, then a floodplain development permit must be denied.

It is helpful to the applicant to have the major area(s) of noncompliance pointed out so the appropriate correction(s) can be made.

Clarification of deficiencies can help reduce the number of unnecessary appeals to administrative and regulatory decisions

### **SECTION III ESTABLISH ON ON-SITE INSPECTION PROCESS**

Either the FLOODPLAIN ADMINISTRATOR or the designated city agent should perform periodic and timely on-site inspections to confirm that the line between design and actual construction/development is made in compliance with the approved plans. Site inspections serve to minimize and prevent violations. The community must take an active role in enforcement through site inspections.

- **Inspection of the Site/Work**

- **Inspection One:**

With plans in hand:

- Determine that the site identified on the proposed plans is consistent with actual ground conditions
- Verify the location of floodplain and floodway boundaries, if applicable

- **Inspection Two:**
  - Where an elevated/floodproofed structure is involved, this inspection should be scheduled just prior to the placement of the lowest floor of the building to:
    - Determine whether the lowest floor will be situated to the height stipulated in the permit application
    - Ensure that the type of foundation used is the type specified in the plans
    - Check floodway encroachments, if applicable
  
- **Inspection Three:**
  - At or near the completion of the development, inspect to:
    - Determine whether the placement of fill, if used, meets the necessary slope and protection standards contained in local regulations
    - Inspect enclosures below the BFE to ensure adequately sized openings exist
    - Check breadaway walls
    - Check for floodway encroachments, if applicable
    - Check anchoring system used in securing manufactured homes
  
- **Future/Additional Inspections**
  - The property must remain in compliance with floodplain management regulations and the FLOODPLAIN ADMINISTRATOR should periodically check to ensure that the property remains so.
  - Subsequent inspections are particularly important when a structure contains enclosures below the BFE as these areas can be easily modified and made into habitable spaces in violation of regulations.
  - Inspecting new construction serves to field verify “as built” conditions
  - routine inspections of special flood hazard areas can serve to check for unpermitted development.
  - Inspections are useful in identifying unpermitted substantial improvements.

**SECTION IV. INSTITUTIONALIZE ENFORCEMENT ACTIONS**

The National Flood Insurance Program (NFIP) stipulates that participating communities must have legally enforceable regulations. To do this, the regulations must contain enforcement procedures and penalties that are derived from State enabling statutes.

☞ Usually these enforcement tools are:

- Administrative Methods
- Injunctions
- Fines
- Imprisonment

• **ADMINISTRATIVE METHODS**

- If the infraction is found during an inspection of ongoing construction, the FLOODPLAIN ADMINISTRATOR can take initial steps to correct the problem by pointing out the deficiency to the developer and following up with another timely visit to ensure compliance.

- If the violation is serious or if the problem continues after the follow-up inspection, the community can issue a stop work order to begin procedures to revoke the permit. All of these actions should be conveyed through certified letters that follow an established warning process.
- If the violation continues, then usually formal legal action will have to be pursued.

- **FINES**

- Fines are commonly cited penalties established through adopted community ordinance(s). Usually a maximum fine is established per offense, and each day of a violation is a separate offense.

- **INJUNCTIONS**

- Most often in the form of a temporary restraining order, injunctive relief is the court directed order to the defendant to cease any further noncompliant conduct. The activity is usually shown to be of danger to the public and that immediate irreparable harm can occur. Once the illegal activity is stopped, the community can proceed to request a mandatory injunction to abate the violations as a public nuisance.

- **IMPRISONMENT**

- Depending on State enabling legislation, the community's enforcement ordinance may invoke imprisonment as a result of the applicant's failure to pay the required fines.

## **SECTION V. CREATE, SUPPORT, AND INTERACT IN VARIANCE AND APPEALS PROCESS**

### **☞ Variances**

A variance is a waiver of one or more of the specific standards required in ordinances. It represents a community's approval to set aside floodplain regulations that were adopted to reduce loss of life and property damages due to flood. While the impact of a single variance on a flood hazard may not be significant, the cumulative impact of several variances may be severe. Therefore, variances should be discouraged when possible. When a variance is granted by a community, the **FLOODPLAIN ADMINISTRATOR** should properly document the justification for the variance. This will be required by FEMA when the community is audited.

The **PRIMARY CRITERIA FOR GRANTING A VARIANCE** is predicated on the clear establishment of an unnecessary hardship created for the property owner. The following is list of demonstrated unnecessary hardships.

- **UNNECESSARY HARDSHIPS**

- **Defined as:**

- Loss of all beneficial or productive use
- Deprivation of reasonable return on property

- Deprivation of all or any reasonable use
  - Rendering property valueless
  - Inability to develop property in compliance with the regulations
  - Reasonable use cannot be made consistent with regulations
- **Insufficient reasons:**
- Less than a drastic depreciation of property
  - Convenience of property owner
  - Additional costs to build in conformance with codes
  - Circumstances of owner not the land
  - To obtain better financial return
  - Property similar to others in neighborhood
  - Hardship created by owner's own actions.

**\*IF A VARIANCE IS APPROVED**, the community **must** send a certified letter to the applicant, in accordance with the floodplain ordinance, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

#### ☞ **Appeals**

Once the request for a variance is heard, it must be either granted or denied. If the variance is denied, then the property owner has the legal right to appeal that administrative decision to the Board of Aldermen of the city. The Board can then grant or deny the variance or amend the regulations. If the action of the Board of Aldermen is still unacceptable to the property owner, the owner can seek relief through the judicial court system. Before the case can be presented to the court, all administrative and legislative remedies must be exhausted.

#### **SECTION VI. KEEP RECORDS OF ALL FLOODPLAIN DEVELOPMENT PERMITS**

The city must establish a standard procedure for issuing and recording number of floodplain development permits for filling, construction and other development located in the floodplain.

The type of flood-related information that should be retained includes:

- Floodplain Development Permits/Applications including all elevation and Floodproofing certificates
  - Recorded "As Built" elevations
  - Findings of fact relative to variances and appeals
  - NFIP Biennial Report Forms
  - Other NFIP correspondence
  - Floodplain management data
  - "No-Rise" Certifications in cases of floodway development
  - Copies of "Submit For Rate" on all structures built below 100 year flood levels

#### **SECTION VII. COLLECT FEES**

All fees connected to floodplain development shall be collected by the City Collector. The FLOODPLAIN ADMINISTRATOR shall have the administrative procedure for collecting and documenting all transactions institutionalized within the city's legislated structure.

## **SECTION VIII. INVESTIGATE COMPLAINTS**

The FLOODPLAIN ADMINISTRATOR may be called to investigate public complaints. The administrator should use these opportunities to monitor any encroachments that may have occurred in the floodway including fill, construction, placement of mobile homes, etc. By developing professional relationships with community the FLOODPLAIN ADMINISTRATOR can increase floodplain monitoring capacity at no cost to the city.

## **SECTION IX. MAINTAIN AND UPDATE ADMINISTRATIVE FORMS**

☞ Form management should include these considerations:

- Forms should include a listing of the application information outlined in the administrative provisions of the ordinance.
- Forms should reflect the technical provisions of the ordinance by requiring information relative to those provisions.
- The forms should be revised periodically to remain current with the changes in the floodplain management ordinance and to include pertinent informational needs.
- Floodplain development permit applications variance requests, and other administrative forms should be kept current and in sufficient supply.
- A good administrative form can serve as a checklist for identifying the other kinds of information that should accompany the application submission.

## **SECTION X. COORDINATE MAP APPEALS AND REVISIONS**

Any official revision of the flood maps accomplished through either a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR) should be appended to the official city floodplain map for permanent record.

## **SECTION XI. MAINTAIN FLOODPLAIN MAPS AND FLOOD DATA**

The FLOODPLAIN ADMINISTRATOR should:

- Maintain an adequate supply of FEMA maps for administrative purposes
- Record all map corrections and notices of map revision and attach same to the official administrative map(s)
- Maintain the sources of known flood data for approximate floodplain areas
- ensure that accurate floodplain maps are displayed in an appropriate public place

## **SECTION XII. UNNUMBERED A ZONES**

When a community has entered the Regular Phase of the NFIP through a special conversion of their Flood Hazard Boundary Map (FHBM) over to a Flood Insurance Rate Map (FIRM), the flood areas designated as "Zone A" may be the only flood zone designation. These zones do not have base flood elevations provided. ***THE LACK OF ELEVATIONS ON THE MAP DOES NOT REMOVE THE REQUIREMENTS FOR ELEVATING STRUCTURES.*** In this case, the community is required to obtain, review and reasonably use any flood elevation data or floodway data available from a Federal, State or other source.

## **SECTION XIII. BIENNIAL REPORTS**

Every two year, FEMA sends a pre-printed form to the community FLOODPLAIN ADMINISTRATOR that should be completed and returned within thirty (30) days.

- The report must be signed by the person completing the form and returned to FEMA at the address provided. A copy of the completed report should be retained in the community's files for future reference.
- The Biennial Report indicates to FEMA the degree of development pressure on the floodplain. Variances issued in the floodplain are of particular interest to FEMA

**FEMA Biennial Report: Filling It Out - Some Items of Note**

- ☞ Correct any preprinted information on the form that is incorrect.
- ☞ 1) Refers to any changes and activities in the floodplain. Changes in the community's territorial limits should be noted as "Yes" to Question A and a copy of the new boundaries should be included.
- ☞ **Question C:** Man-made changes refer to the replacement of culverts, bridges, physical changes which affect the characteristics of flooding, construction of dikes or drainage projects. Individual or localized projects such as resurfacing parking lots, building small retention basins, or minor drainage improvements need not be mentioned.
- ☞ **SECTION II:** Asks about the number of permits granted in the community's flood hazard areas only since the last report was made. Communities need to report the number of variances, if any, granted to the floodplain ordinance.
- ☞ **Community data:** Asks for the best estimate of the population and number of 1-4 family structures and other structures (schools, churches, businesses, public buildings) located in the entire community. It then asks for estimates in the community's flood hazard areas only. Changes should be made to correct figures that are no longer accurate.

**SECTION IXV.**

These Administrative procedures for Floodplain Management for the City of St. Mary, Missouri shall be in full force and effect from and after this the 12th day of March, 2002.

  
 \_\_\_\_\_  
 MAYOR CARLTON WYATT


ATTEST:

  
 \_\_\_\_\_  
 CITY CLERK JOANN E. DONZE

**ALDERMEN** \_\_\_\_\_ **AYE** \_\_\_\_\_ **NAY** \_\_\_\_\_ **ABSTAIN** \_\_\_\_\_ **ABSENT**

Robert Bequeath  
 Brian Chapman  
 Charlotte Tote  
 Robert Schultz

I, Joann E. Donze, City Clerk of the City of St. Mary, Missouri do hereby certify that the foregoing Ordinance No. 737 was duly passed and adopted by the Board of Aldermen at a meeting so convened this the 12th day of March, 2002

  
\_\_\_\_\_  
CITY CLERK JOANN E. DONZE

- **APPENDICES ATTACHED**
  - **Floodplain Development Permit**
  - **Elevation Certificate**
  - **Variance Requests**
  - **Review Checklist**
  - **Inspection Checklist**

# **APPENDICES**

# FLOODPLAIN DEVELOPMENT PERMIT/APPLICATION

Application # \_\_\_\_\_

Date \_\_\_\_\_

TO THE ADMINISTRATOR: The undersigned hereby makes application for a permit to develop in a floodplain. The work to be performed, including flood protection works, is as described below and in attachments hereto. The undersigned agrees that all such work shall be done in accordance with the requirements of the Floodplain Management Ordinance and with all other applicable county/city ordinances and the laws and regulations of the State of MISSOURI.

Owner or Agent _____	Date _____	Builder _____	Date _____
Address _____		Address _____	
Phone _____		Phone _____	

**SITE DATA**

1. Location: \_\_\_\_\_ ¼; \_\_\_\_\_ ¼; Section \_\_\_\_\_; Range \_\_\_\_\_; Township \_\_\_\_\_  
Street Address \_\_\_\_\_
  2. Type of Development: Filling \_\_\_\_\_ Grading \_\_\_\_\_ Excavation \_\_\_\_\_ Min Improvmt \_\_\_\_\_  
Routine Maint \_\_\_\_\_ Substantial Improvmt \_\_\_\_\_ New Const \_\_\_\_\_ Other \_\_\_\_\_
  3. Description of Development: \_\_\_\_\_
  4. Premises: Structure size \_\_\_\_\_ ft. X \_\_\_\_\_ ft. Area of site \_\_\_\_\_ sq. ft.  
Principal use \_\_\_\_\_ Accessory uses (storage, parking, etc.) \_\_\_\_\_
  5. Value of Improvement (fair market) \$ \_\_\_\_\_ Pre-Improvement/Assessed value of structure \$ \_\_\_\_\_
  6. Property located in a designated FLOODWAY? Yes \_\_\_\_\_ No \_\_\_\_\_  
IF ANSWERED YES, CERTIFICATION MUST BE PROVIDED PRIOR TO THE ISSUANCE OF A PERMIT TO DEVELOP THAT PROPOSED DEVELOPMENT WILL RESULT IN NO INCREASE IN THE BASE FLOOD (100-YEAR) ELEVATION.
  7. Property located in a designated FLOODPLAIN FRINGE? Yes \_\_\_\_\_ No \_\_\_\_\_
  8. Elevation of the 1090-year flood (ID source) \_\_\_\_\_ MSL/NGVD
  9. Elevation of the proposed development site \_\_\_\_\_ MSL/NGVD
  10. Elevation/floodproofing requirement \_\_\_\_\_ MSL/NGVD
  11. Other floodplain elevation information (ID and describe source) \_\_\_\_\_
  12. Other Permits required?  
Corps of Engineers 404 Permit: Yes \_\_\_\_\_ No \_\_\_\_\_  
State Dept. of Natural Resources Yes \_\_\_\_\_ No \_\_\_\_\_  
Other \_\_\_\_\_
- \_\_\_\_\_ ALL provisions of Ordinance \_\_\_\_\_, Floodplain Management Ordinance shall be in compliance.

**PERMIT APPROVAL/DENIAL**

Plans and Specifications Approved/Denied this \_\_\_\_\_ Day of \_\_\_\_\_, 19\_\_\_\_

Signature of Developer/Owner \_\_\_\_\_  
\_\_\_\_\_  
Print Name and Title

Authorizing Official \_\_\_\_\_  
\_\_\_\_\_  
Print Name and Title

THIS PERMIT IS ISSUED WITH THE CONDITION THAT THE LOWEST FLOOR (INCLUDING BASEMENT) OF ANY NEW OR SUBSTANTIALLY-IMPROVED RESIDENTIAL STRUCTURE WILL BE ELEVATED \_\_\_\_\_ FOOT/FEET ABOVE THE BASE FLOOD ELEVATION. IF THE PROPOSED DEVELOPMENT IS A NON-RESIDENTIAL STRUCTURE, THIS PERMIT IS ISSUED WITH THE CONDITION THAT THE LOWEST FLOOR (INCLUDING BASEMENT) OF ANY NEW OR SUBSTANTIALLY-IMPROVED NON-RESIDENTIAL STRUCTURE WILL BE ELEVATED OR FLOODPROOFED \_\_\_\_\_ FOOT/FEET ABOVE THE BASE FLOOD ELEVATION. THIS PERMIT IS ISSUED WITH THE CONDITION THAT THE DEVELOPER/OWNER WILL PROVIDE CERTIFICATION BY A REGISTERED ENGINEER, ARCHITECT, OR LAND SURVEYOR OF THE "AS-BUILT" LOWEST FLOOR ELEVATION OF ANY NEW OR SUBSTANTIALLY-IMPROVED STRUCTURE COVERED BY THE PERMIT.

cc: Floodplain Permit Section  
State Emergency Management Agency (SEMA)



**FEDERAL EMERGENCY MANAGEMENT AGENCY**

**NATIONAL FLOOD INSURANCE PROGRAM**

**ELEVATION CERTIFICATE**

**AND**

**INSTRUCTIONS**

# NATIONAL FLOOD INSURANCE PROGRAM ELEVATION CERTIFICATE

## PAPERWORK REDUCTION ACT NOTICE

Public reporting burden for the Elevation Certificate is estimated to average 2.25 hours per response. Burden means the time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to the Federal Emergency Management Agency (FEMA). You are not required to respond to the collection of information unless a valid OMB control number is displayed in the upper right corner of each form. You may send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (3067-0077). Do not send completed form(s) to the above address. To obtain or retain benefits under the National Flood Insurance Program (NFIP), you must respond to this collection of information.

## PURPOSE OF THE ELEVATION CERTIFICATE

The Elevation Certificate is an important administrative tool of the National Flood Insurance Program (NFIP). It is to be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment or Revision (LOMA or LOMR-F).

The Elevation Certificate is required in order to properly rate post-FIRM buildings, which are buildings constructed after publication of the Flood Insurance Rate Map (FIRM), for flood insurance Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO. The Elevation Certificate is not required for pre-FIRM buildings unless the building is being rated under the optional post-FIRM flood insurance rules.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt a floodplain management ordinance that specifies minimum requirements for reducing flood losses. One such requirement is that the community obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to comply with this requirement.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the Federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA or LOMR-F request. Lowest floor and lowest adjacent ground elevations certified by a surveyor or engineer will be required if the certificate is used to support a LOMA or LOMR-F request.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the Base Flood Elevation (BFE). A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

FEDERAL EMERGENCY MANAGEMENT AGENCY  
NATIONAL FLOOD INSURANCE PROGRAM

O.M.B. No. 3067-0077  
Expires July 31, 2002

**ELEVATION CERTIFICATE**

Important: Read the instructions on pages 1 - 7.

**SECTION A - PROPERTY OWNER INFORMATION**

BUILDING OWNER'S NAME	For Insurance Company Use:
BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO.	Policy Number
CITY	Company NAIC Number
STATE	ZIP CODE

PROPERTY DESCRIPTION (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)

BUILDING USE (e.g., Residential, Non-residential, Addition, Accessory, etc. Use Comments section if necessary.)

ATTITUDE/LONGITUDE (OPTIONAL) **HORIZONTAL DATUM:** SOURCE:  GPS (Type):  NAD 1927  NAD 1983  USGS Quad Map  Other:

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

B1. NFIP COMMUNITY NAME & COMMUNITY NUMBER		B2. COUNTY NAME			B3. STATE	
B4. MAP AND PANEL NUMBER	B5. SUFFIX	B6. FIRM INDEX DATE	B7. FIRM PANEL EFFECTIVE/REVISED DATE	B8. FLOOD ZONE(S)	B9. BASE FLOOD ELEVATION(S) (Zone AO, use depth of flooding)	

0. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in B9.  
 FIS Profile  FIRM  Community Determined  Other (Describe):  
 1. Indicate the elevation datum used for the BFE in B9:  NGVD 1929  NAVD 1988  Other (Describe):  
 2. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)?  Yes  No  
 Designation Date:

**SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)**

Building elevations are based on:  Construction Drawings\*  Building Under Construction\*  Finished Construction  
 \*A new Elevation Certificate will be required when construction of the building is complete.  
 Building Diagram Number \_\_\_\_\_ (Select the building diagram most similar to the building for which this certificate is being completed - see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)  
 Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO  
 Complete Items C3a-i below according to the building diagram specified in Item C2. State the datum used. If the datum is different from the datum used for the BFE in Section B, convert the datum to that used for the BFE. Show field measurements and datum conversion calculation. Use the space provided or the Comments area of Section D or Section G, as appropriate, to document the datum conversion.  
 Datum \_\_\_\_\_ Conversion/Comments \_\_\_\_\_  
 Elevation reference mark used \_\_\_\_\_ Does the elevation reference mark used appear on the FIRM?  Yes  No

<input type="checkbox"/> a) Top of bottom floor (including basement or enclosure)	_____ ft.(m)	License Number, Embossed Seal, Signature, and Date
<input type="checkbox"/> b) Top of next higher floor	_____ ft.(m)	
<input type="checkbox"/> c) Bottom of lowest horizontal structural member (V zones only)	_____ ft.(m)	
<input type="checkbox"/> d) Attached garage (top of slab)	_____ ft.(m)	
<input type="checkbox"/> e) Lowest elevation of machinery and/or equipment servicing the building	_____ ft.(m)	
<input type="checkbox"/> f) Lowest adjacent grade (LAG)	_____ ft.(m)	
<input type="checkbox"/> g) Highest adjacent grade (HAG)	_____ ft.(m)	
<input type="checkbox"/> h) No. of permanent openings (flood vents) within 1 ft. above adjacent grade	_____	
<input type="checkbox"/> i) Total area of all permanent openings (flood vents) in C3h	_____ sq. in. (sq. cm)	

**SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION**

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information in Sections A, B, and C on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

CERTIFIER'S NAME	LICENSE NUMBER		
TITLE	COMPANY NAME		
ADDRESS	CITY	STATE	ZIP CODE
SIGNATURE	DATE	TELEPHONE	

**IMPORTANT: In these spaces, copy the corresponding information from Section A.**

BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bldg. No.) OR P.O. ROUTE AND BOX NO.  
CITY STATE ZIP CODE

For Insurance Company Use:  
Policy Number  
Company NAIC Number

**SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)**

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

COMMENTS

**SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)**  Check here if attachments

For Zone AO and Zone A (without BFE), complete Items E1 through E4. If the Elevation Certificate is intended for use as supporting information for a LOMA or LOMR-F, Section C must be completed.

- E1. Building Diagram Number \_\_\_\_ (Select the building diagram most similar to the building for which this certificate is being completed – see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.)
- E2. The top of the bottom floor (including basement or enclosure) of the building is \_\_\_\_ ft.(m) \_\_\_\_ in.(cm)  above or  below (check one) the highest adjacent grade.
- E3. For Building Diagrams 6-8 with openings (see page 7), the next higher floor or elevated floor (elevation b) of the building is \_\_\_\_ ft.(m) \_\_\_\_ in.(cm) above the highest adjacent grade.
- E4. For Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance?  Yes  No  Unknown. The local official must certify this information in Section G.

**SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION**

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here.

PROPERTY OWNER'S OR OWNER'S AUTHORIZED REPRESENTATIVE'S NAME  
ADDRESS CITY STATE ZIP CODE  
SIGNATURE DATE TELEPHONE  
COMMENTS

**SECTION G - COMMUNITY INFORMATION (OPTIONAL)**  Check here if attachments

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below.

- G1.  The information in Section C was taken from other documentation that has been signed and embossed by a licensed surveyor, engineer, or architect who is authorized by state or local law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2.  A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3.  The following information (Items G4-G9) is provided for community floodplain management purposes.

G4. PERMIT NUMBER	G5. DATE PERMIT ISSUED	G6. DATE CERTIFICATE OF COMPLIANCE/OCCUPANCY ISSUED
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- G7. This permit has been issued for:  New Construction  Substantial Improvement
- G8. Elevation of as-built lowest floor (including basement) of the building is: \_\_\_\_\_ ft.(m) Datum: \_\_\_\_\_
- G9. BFE or (in Zone AO) depth of flooding at the building site is: \_\_\_\_\_ ft.(m) Datum: \_\_\_\_\_

LOCAL OFFICIAL'S NAME TITLE  
COMMUNITY NAME TELEPHONE  
SIGNATURE DATE  
COMMENTS

Check here if attachments

# FLOODPLAIN MANAGER'S REVIEW CHECKLIST

## COMMUNITY ORDINANCE REQUIREMENTS

\_\_\_\_\_ Proposed development is consistent with:

Community Zoning: Yes \_\_\_\_\_ No \_\_\_\_\_

Special Regulations governing site: Yes \_\_\_\_\_ No \_\_\_\_\_

\_\_\_\_\_ Variances:

\_\_\_\_\_ Floodplain Case Number \_\_\_\_\_ Date Issued \_\_\_\_\_

\_\_\_\_\_ Zoning Case Number \_\_\_\_\_ Date Issued \_\_\_\_\_

\_\_\_\_\_ Proposed development complies with exception granted to community

\_\_\_\_\_ Is the proposed development within a historical district or on a historical site or building?

## FLOODPLAIN REGULATIONS

\_\_\_\_\_ Compared proposed development to all existing flood information, the NFIP maps and record map amendments, and attendant study profiles

\_\_\_\_\_ Meets the NFIP development standards: Yes \_\_\_\_\_ No \_\_\_\_\_

\_\_\_\_\_ Alteration or relocation of watercourse: Yes \_\_\_\_\_ No \_\_\_\_\_

Affected communities: \_\_\_\_\_

Notification Made: \_\_\_\_\_

\_\_\_\_\_ FEMA Region notified of proposed development: Yes \_\_\_\_\_ No \_\_\_\_\_

Contact Person: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ Conditional NFIP Letter of Map Revision (CLOMR) required: Yes \_\_\_\_\_ No \_\_\_\_\_

\_\_\_\_\_ Official NFIP Letter of Map Amendment (LOMA) required: Yes \_\_\_\_\_ No \_\_\_\_\_

\_\_\_\_\_ Official NFIP Letter of Map Revision (LOMR) required: Yes \_\_\_\_\_ No \_\_\_\_\_

## BUILDING INFORMATION

\_\_\_\_\_ Residential Structure: Elevated Yes \_\_\_\_\_ No \_\_\_\_\_

\*Height to which a structure is Elevated: \_\_\_\_\_

\_\_\_\_\_ Commercial Structure: Elevated Yes \_\_\_\_\_ No \_\_\_\_\_ Floodproofed Yes \_\_\_\_\_ No \_\_\_\_\_

\*Height to which a structure is Elevated: \_\_\_\_\_ Floodproofed: \_\_\_\_\_

\_\_\_\_\_ Industrial Structure: Elevated Yes \_\_\_\_\_ No \_\_\_\_\_ Floodproofed Yes \_\_\_\_\_ No \_\_\_\_\_

\*Height to which a structure is Elevated: \_\_\_\_\_ Floodproofed: \_\_\_\_\_

\_\_\_\_\_ Auxiliary/Accessory

\_\_\_\_\_ Other [Specify] \_\_\_\_\_

\_\_\_\_\_ Type of foundation system proposed: \_\_\_\_\_

\_\_\_\_\_ Special anchoring requirements: \_\_\_\_\_

FLOODPLAIN MANGER'S REVIEW CHECK LIST - Page 2

ENGINEERING DATA

Required \_\_\_\_\_ Submitted \_\_\_\_\_ Hydrologic and hydraulic calculations  
Required \_\_\_\_\_ Submitted \_\_\_\_\_ Loading calculations and methods of construction  
Required \_\_\_\_\_ Submitted \_\_\_\_\_ Alternative designs for meeting minimum opening requirements  
Required \_\_\_\_\_ Submitted \_\_\_\_\_ Design and methods of construction for break-away walls

PERMIT INFORMATION

\_\_\_\_\_ Development Permit Application submitted: Yes \_\_\_\_\_ No \_\_\_\_\_  
\_\_\_\_\_ Other permits required:

\_\_\_\_\_ Federal: \_\_\_\_\_  
\_\_\_\_\_ State: \_\_\_\_\_  
\_\_\_\_\_ Community: \_\_\_\_\_

*[Have applicant provide copy, if already obtained or when permits are available]*

\_\_\_\_\_ Other reviews required:

\_\_\_\_\_ Public Works \_\_\_\_\_ Community Engineer  
\_\_\_\_\_ Planning and Zoning \_\_\_\_\_ Highway Department  
\_\_\_\_\_ Building Review \_\_\_\_\_ Other: \_\_\_\_\_

TECHNICAL CERTIFICATIONS

\_\_\_\_\_ NFIP Elevation Certificate: Provided \_\_\_\_\_ Not Required \_\_\_\_\_  
\_\_\_\_\_ NFIP Floodproofing Certificate: Provided \_\_\_\_\_ Not Required \_\_\_\_\_  
\_\_\_\_\_ Enclosures below Base Flood Elevation (BFE): Provided \_\_\_\_\_ Not Required \_\_\_\_\_  
\_\_\_\_\_ "No-Rise" Certification: Provided \_\_\_\_\_ Not Required \_\_\_\_\_

PERMIT ISSUANCE

Permit Issued: \_\_\_\_\_  
Permit Conditions: \_\_\_\_\_

Issued by: \_\_\_\_\_  
*[signature of authorizing official required]*

FEE(S)

Permit Application: \_\_\_\_\_  
Plan Review: \_\_\_\_\_  
Inspections: \_\_\_\_\_  
Additional Fees *[Specify]*: \_\_\_\_\_

Type	Amount
_____	_____

## COMPONENTS SUGGESTED TO ASSIST THE FLOODPLAIN MANAGER IN LEARNING THE COMMUNITY'S FLOODPLAIN CHARACTERISTICS

- ☞ Learn what floodplain resource information is available
  - Perform a detailed search of all existing flood information, including any recent flooding events
  - Obtain copies of all panels of the NFIP maps and attendant study profiles
  - Obtain copies of any resources: studies, maps, plans
  - Keep records of any changes
  - Review any map amendments that may have occurred subsequent to the map's publication date
  - Flooding history of community
    - ◆ Dates and trends
    - ◆ Extent of damage
      - 0 How many buildings were substantially-damaged?
      - 0 How many were residential? Commercial?
      - 0 How many were elevated?
      - 0 How many less damaged structures were mitigated?
      - 0 Have any of the structures/properties been acquired by the community?
      - 0 Are any **structural** flood mitigation projects planned?
      - 0 Are any **non-structural** flood mitigation projects planned?
- ☞ Know the community's statistics
  - Total population (census data or updates)
  - Population located in special flood hazard areas (100-year floodplain)
  - Number of structures in special flood hazard areas (100-year floodplain)
    - ◆ 1-4 family structures
    - ◆ Multiple family structures
    - ◆ Other structures
      - 0 Commercial
      - 0 Industrial
  - Number of Permits issued for new structures or substantial improvements in the special flood hazard area (100-year floodplain)
  - Total number of flood variances granted/issued
    - ◆ Type of floodplain management standards varied
      - 0 Base Flood Elevations (BFEs)
      - 0 Floodway standards
      - 0 Basement standards
      - 0 Others [*explain*]
  - Have there been any changes to the community's territorial or extra-territorial boundaries since the effective date of the last map revision?
  - Have there been any bridges or culverts constructed since the last map revision?

- ☞ Become familiar with the physical characteristics of the floodplain area within your community
  - Take pictures or obtain aerial photos for future reference
  - Does the community's Flood Insurance Study (FIS) or floodplain maps need revision?
    - ◆ Additional area to be included
    - ◆ Deletion of area in floodplain
- ☞ Get acquainted with the floodplain managers of adjacent communities, counties, state, and federal agencies
- ☞ Establish the community's floodplain management reference tools
  - Collect any existing information delineating any channel and floodplain cross sections
  - Identification or establishment of elevation reference marks
  - Physical dimensions of hydraulic structures
  - Various stream data: flow data, gage data, flooding heights, flood histories, basin patterns, discharge rates and patterns, bridges or other structures with the stream bed
- ☞ Have your local officials been educated in the basic aspects of floodplain management concepts

## GUIDANCE FOR UNNUMBERED A ZONES

In dealing with Flood Hazard Boundary Maps (FHBMs) and Flood Insurance Rate Maps (FIRM), flood areas designated as "Zone A" may be encountered. In Special Conversion communities, which have received no Flood Insurance Study (FIS), it may be the only flood zone designation. These Zones A, where "Zone A" is not immediately followed by a number such as A5, A2, etc., do not have base flood elevations provided. The lack of elevations on the map does not remove the requirement for elevating structures. Federal regulations and your local floodplain ordinance/resolution, require that the community obtain, review and reasonably use any base flood elevation (BFE) data or floodway data that are available from a Federal, State or other source. BFE data are to be used by the community to require that new construction and substantial improvements of residential structures have their lowest floor (including basement) elevated to or above the BFE and that nonresidential structures be elevated or floodproofed to that elevation.

If possible, you should make every effort to identify an area of the floodplain, which will carry the floodwaters without resulting in much greater flood heights. FEMA studies refer to this area as a "floodway" and Flood Insurance Studies often show floodway areas. For Zones A unnumbered, floodways are not provided, but obviously, if new development occurs too close to the channel, additional flood heights, greater than the acceptable norm of one (1) additional foot, may occur. Floodway data are usually found in flood reports provided by a State or Federal agency. You are encouraged to check with your State floodplain management office for information on the existence of such information. Without such reports, common sense or locally funded studies are the only way to manage future flooding.

Provided below are some ideas for developing BFE information. Also provided is guidance for where to find such flood information. As a final resort, you may wish to call this office at (816) 283-7002 for assistance.

1. Preliminary, draft or final Flood Insurance Studies for your community or adjacent communities.
2. The Flood Hazard Boundary Map or Flood Insurance Rate Map can be used to determine the closest point on the outer boundary of Zone A in relation to the site in question. Assuming that the floodplain limit shown on the map is a result of the water reaching high ground, you might use that edge, or outer boundary of the floodplain, as the BFE limit. A surveyor can determine the elevation of this point or it can be compared to a topographic map to determine the elevation; this can then serve as the BFE. If you question the accuracy of the configuration of Zone A as shown on your map, this method should not be used.

3. Research any local sources of BFE information such as: Public Works or Road & Bridge Dept.; sewer, watershed or levee districts; historical data such as high water marks; information from local engineering firms.
4. Check with your State coordinating office (name, address and telephone number on reverse side), to determine whether BFE information is available from the following sources: Soil Conservation Service; United States Geological Survey; State Department of Transportation; State Natural Resources Department; Bureau of Land Reclamation; Corps of Engineers (Floodplain Management Office).

- NOTE:
- A. You must require that BFE and floodway data be included with all subdivision proposals and other proposed new developments that are greater than 50 lots or 5 acres whichever is the lesser. In these cases, the developer is required to perform an engineering study to develop BFEs and floodway information. This will be considered the best available information.
  - B. Remember that final, as-built elevation certificates are required for all new floodplain developments.

When a BFE cannot be determined through any of the sources of information listed above, you may issue a permit without citing a BFE. In these cases, the lowest floor must be above the highest natural adjacent grade to the proposed structure. It is recommended that the lowest floor (including basement) be at least two (2) feet above the highest natural adjacent grade to facilitate a reasonable insurance rate. Furthermore, it is recommended that the community direct the developer (in writing) to consult with an insurance agent to determine the cost/benefit of exceeding these minimum guidelines.