

# County of Colusa

## Floodplain Development

### Policies, Procedures, and Standards

June 1999

General: This document is intended to provide a written procedure for establishing minimum standards for the placement of structures within Colusa County that are in areas determined by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) to be in areas of special flood hazard, commonly referred to as flood "A" zones.

Colusa County currently has flood maps that consist of panels with un-numbered, less detailed "A" zones, and some panels with more detailed "AE" zones that give estimated 100-year flood elevations above mean sea level. For new construction within the "AE" zones, the County will require the lowest finish floor of any residential construction be at or above the 100-year flood elevation. It is recommended that floors be at least one foot above the 100-year flood to prevent moisture intrusion, particularly with a raised-floor foundation. Facilities such as air-conditioning units, ducting and propane tanks must also be raised above the 100-year flood.

Buildings placed in un-numbered "A" zones need to be placed in such a fashion so as to minimize the potential for future flooding. The steps to be followed in these areas to determine the minimum finish floor elevation shall be as follows:

- 1) Investigate any physical evidence in the area which may give an indication of previous high water levels. Also investigate local knowledge of individuals who may have observed high water levels in the area in previous flood events. If this information is available, a licensed Land Surveyor or Civil Engineer shall measure that elevation, and shall certify that the lowest finish floor for the new structure shall be at or above that level. It is recommended that the lowest finish floor be a minimum of one foot above a known high water mark for a factor of safety.
- 2) If flood information or elevations are not available, a licensed Land Surveyor or Civil Engineer shall certify that the lowest finish floor elevation for the new structure shall be a minimum of two feet higher than the adjacent terrain, if that appears reasonable. If the two-foot standard appears inadequate, the surveyor or engineer shall make further recommendations for a minimum floor height.

The FEMA 100-year flood elevation or elevation determined in step 1 or 2 shall hereafter be referred to as the base flood level.

A flood zone development permit shall be completed for new buildings or additions constructed in all "A" zones. The development permit will include the Surveyor's or Engineer's certification of the lowest finish floor elevation, and state whether that elevation is related to FEMA data or an elevation related to adjacent terrain.

If the structure to be built is founded upon a solid raised foundation, there shall be vents placed around the foundation no higher than one foot above the adjacent ground to allow the automatic entrance and exit of floodwaters. The total area of vent openings shall be no less than one square inch per every square foot of enclosed floor space. Persons wishing to deviate from those standards shall be required to provide a certification from a licensed Civil Engineer that the foundation is structurally adequate to resist the hydrostatic and hydrodynamic water pressures exerted by floodwaters. Buildings on open foundations that allow free passage of water beneath the building will need to be adequately braced to resist hydrodynamic water forces.

Any buildings being remodeled or renovated that lie within an "A" zone shall be raised to have their lowest finish floor elevation at or above the base flood (one foot of freeboard is recommended) if the work being done equals or exceeds fifty percent of the estimated value of the existing structure. If the work being done is valued at less than fifty percent, only the new work needs to meet the flood zone development standards. The current assessed valuation of the building shall be used to determine the estimated value of the existing structure.

*Colusa County Department of Public Works*

**DEVELOPMENT PERMIT APPLICATION**

*(Special Flood Hazard Zone A)*

*Property Owner:* \_\_\_\_\_

*Property Address:* \_\_\_\_\_

*Assessor Parcel No:* \_\_\_\_\_

*Telephone No.:* (\_\_\_\_) \_\_\_\_\_

*Type of Development:*

*Residential*                      Yes \_\_\_\_\_                      No \_\_\_\_\_

*Non-Residential*              Yes \_\_\_\_\_                      No \_\_\_\_\_

-----NOTICE-----

*Flood Insurance Rate Maps and/or an engineering study prepared by the Federal Emergency Management Agency(FEMA) indicates that the site for which you seek a permit for construction or development may, upon the happening of certain events, be subject to flooding. The maps and/or study suggests that the area would not be protected in the event of a storm of such magnitude as occurs once every 100 years. Accordingly, you should carefully assess the possible loss of life and property which may be associated with construction or development in the subject area. A copy of the study is available for your review in the Colusa County Department of Public Works.*

*The issuance of this permit is not and should not be viewed by you as a warranty of the suitability of the site involved for the purposes to which you propose to put it. In addition to the requirements imposed by this permit, certain steps may be taken by you to enhance protection against flooding such as elevating structures or building pads, and you should make your own independent determination as to whether these are appropriate in your case.*

*RESIDENTIAL  
DEVELOPMENT PERMIT*

Development Permit No. _____ Date of Issue _____
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Property Owner: \_\_\_\_\_  
Address/Location: \_\_\_\_\_  
Phone No.:( ) \_\_\_\_\_  
A.P. No: \_\_\_\_\_

Type of Development: \_\_\_\_\_  
\_\_\_\_\_

Base Flood Elevation (BFE): \_\_\_\_\_ Feet (N.G.V.D. 1929)  
Source of BFE: \_\_\_\_\_

Additional Agency Permits Required: Yes \_\_\_\_\_ No \_\_\_\_\_  
Type: \_\_\_\_\_  
Remarks: \_\_\_\_\_

Conditions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Engineer/Surveyor Certification:

Project Location: \_\_\_\_\_  
\_\_\_\_\_

*I hereby certify that the true elevation of the lowest floor (including basement) of the building is at or above the BFE listed above (N.G.V.D. 1929)*

*Finish Floor Elevation* \_\_\_\_\_  
*(Nearest 0.1 foot)*

*OR, if no flood plain elevation is shown, I hereby certify that the lowest building finish floor elevation is a minimum of 2 feet above the adjacent terrain.*

_____ Engineer/Surveyor (Signature)	_____ (Seal)
Address: _____	Phone No.( ) _____
_____	

# NON-RESIDENTIAL DEVELOPMENT PERMIT

Development Permit No. _____ Date of Issue _____
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Property Owner: \_\_\_\_\_

Address/Location: \_\_\_\_\_

A.P. No: \_\_\_\_\_

Type of Development: \_\_\_\_\_

Base Flood Elevation (BFE): \_\_\_\_\_ Feet (N.G.V.D. 1929).

Source of BFE: \_\_\_\_\_

## CERTIFICATE NO. 1

*Engineer/Surveyor Certification:*

Project Location: \_\_\_\_\_

*I hereby certify that the true elevation of the lowest floor (including basement) of the building is at or above the BFE listed above (N.G.V.D. 1929 Datum)*

Finish Floor Elevation \_\_\_\_\_  
(Nearest 0.1 foot)

*OR, if no flood plain elevation is shown, I hereby certify that the lowest building finish floor elevation is a minimum of 2 feet above the adjacent terrain.*

\_\_\_\_\_  
Engineer/Surveyor

(Signature)

(Seal)

Address: \_\_\_\_\_

Phone No.(\_\_\_\_) \_\_\_\_\_

Date: \_\_\_\_\_

## CERTIFICATE NO. 2

*I hereby certify that, together with attendant utility and sanitary facilities, the portion of the building below the BFE noted on the attached Development Permit is flood proofed with walls substantially impermeable to the passage of water; and, further that the structural components are capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.*

\_\_\_\_\_  
Engineer/Architect

(Signature)

(Seal)

Address: \_\_\_\_\_

Phone No.(\_\_\_\_) \_\_\_\_\_

Date: \_\_\_\_\_

CERTIFICATE NO. 3

Engineer/Architect Certification:

Project Location: \_\_\_\_\_

A.P. No.(s): \_\_\_\_\_

*I hereby certify that all fully enclosed areas below the lowest floor that are subject to flooding are designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters in compliance with the Colusa County Flood Damage Prevention Ordinance.*

\_\_\_\_\_  
Engineer/Architect (Signature)

(Seal)

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone No. ( ) \_\_\_\_\_

Date: \_\_\_\_\_