

**I. Planning**

The Floodplain Administrator shall assure the County's General Plan is consistent with floodplain management objectives herein.

**J. Non-conversion of Enclosed Areas Below the Lowest Floor**

To ensure that the areas below the BFE shall be used solely for parking vehicles, limited storage or access to the building and not be finished for use as human habitation without first becoming fully compliant with this ordinance, the Floodplain Administrator shall:

1. Determine which applicants for new construction and/or substantial improvements have fully enclosed areas below the lowest floor that are 5 feet or higher;
2. On behalf of the County, enter into a "Non-Conversion Agreement for Construction Within Flood Hazard Areas" or equivalent with the owner of the property upon which the structure is located. The agreement shall be recorded with the County Recorder as a deed restriction. The agreement shall be in a form acceptable to the Floodplain Administrator and County Counsel; and
3. Have the authority to inspect any area of a structure below the base flood elevation to ensure compliance upon prior notice of at least 72 hours.

**4.3 FLOOD PLAIN DEVELOPMENT PERMIT REQUIRED**

A floodplain development permit shall be obtained before any construction or other development, including manufactured homes, within any area of special flood hazard established in **Section 3.2**. Application for a floodplain development permit shall be made on forms furnished by the Floodplain Administrator. The applicant shall provide the following minimum information:

**A. Plans in duplicate, drawn to scale, showing:**

1. Location, dimensions, and elevation of the area in question, existing or proposed structures, storage of materials and equipment and their location;
2. Proposed locations of water supply, sanitary sewer and other utilities;
3. Grading information showing existing and proposed contours, any proposed fill, and drainage facilities;
4. Location of the regulatory floodway when applicable;
5. Base flood elevation information as specified in **Section 3.2** or **Section 4.2.C**;
6. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and
7. Proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed, as required in **Section 5.1.C.2** of this ordinance and detailed in FEMA Technical Bulletin TB 3-93.

**B. Certification from a registered civil engineer or architect that the nonresidential**

floodproofed building meets the floodproofing criteria in **Section 5.1.C.2.**

- C. For a crawl-space foundation, location and total net area of foundation openings as required in **Section 5.1.C.3** of this ordinance and detailed in FEMA Technical Bulletins TB 1-93 and TB 7-93.
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- E. All appropriate certifications listed in **Section 4.2.E** of this ordinance.

#### **4.3.1 COMMENCEMENT OF WORK/PERMIT EXPIRATION**

A floodplain development permit shall expire if the permittee fails to commence the work authorized by the permit within 180 calendar days from the date of issuance of the permit. Upon payment of any applicable renewal fee and within 30 days of expiration, the Floodplain Administrator may, in the Floodplain Administrator's sole discretion, renew a permit which has expired by reason of non-commencement of work one time for a 180-day period.

#### **4.4 APPEALS**

Any person aggrieved by a decision of the Floodplain Administrator issuing or denying a floodplain development permit or determining the exact location of the boundaries of the areas of special flood hazards under **Section 4.2.F** may appeal that decision to the County Board of Supervisors. Appeals shall be filed with the Director in such form as he or she may prescribe within 30 days of such decision. Appeals shall be accompanied by payment of all applicable fees.

### **SECTION 5.0**

#### **PROVISIONS FOR FLOOD HAZARD REDUCTION**

##### **5.1 STANDARDS OF CONSTRUCTION**

In all areas of special flood hazards the following standards are required:

###### **A. Anchoring**

All new construction and substantial improvements of structures, including manufactured homes, shall be adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

###### **B. Construction Materials and Methods**

All new construction and substantial improvements of structures, including manufactured homes, shall be constructed:

1. With flood resistant materials, and utility equipment resistant to flood damage for areas below the base flood elevation;

2. Using methods and practices that minimize flood damage;
3. With electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and
4. Within FIRM Zones AH or AO, so that there are adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

## **C. Elevation and Floodproofing**

### **1. Residential construction**

All new construction or substantial improvements of residential structures shall have the lowest floor, including basement:

- a. In FIRM AE, AH, A1-30 Zones, elevated one foot above the base flood elevation.
- b. In an AO zone, elevated above the highest adjacent grade to a height one foot above the depth number specified in feet on the FIRM, or elevated at least two feet above the highest adjacent grade if no depth number is specified.
- c. In a FIRM A Zone, without BFE's specified on the FIRM [unnumbered A Zone], elevated one foot above the base flood elevation, as determined under **Section 4.2.C.**

Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a registered civil engineer or licensed land surveyor, and verified by the County building inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

### **2. Nonresidential construction**

All new construction or substantial improvements of nonresidential structures shall either be elevated to conform with **Section 5.1.C.1** or:

- a. Be floodproofed, together with attendant utility and sanitary facilities, below the elevation recommended under **Section 5.1.C.1**, so that the structure is watertight with walls substantially impermeable to the passage of water;
- b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
- c. Be certified by a registered civil engineer or architect that the standards of **Section 5.1.C.2.a & b** are satisfied. Such certification shall be provided to the Floodplain Administrator.

### **3. Flood openings**

All new construction and substantial improvements of structures with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding,

shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must meet the following minimum criteria:

a. For non-engineered openings:

1. Have a minimum of two openings on different sides having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. The bottom of all openings shall be no higher than one foot above grade;
3. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwater; and
4. Buildings with more than one enclosed area must have openings on exterior walls for each area to allow flood water to directly enter; or

b. Be certified by a registered civil engineer or architect.

4. **Manufactured homes**

a. See **Section 5.4**.

5. **Garages and low cost accessory structures**

a. Attached garages.

1. A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry of flood waters. See **Section 5.1.C.3**. Areas of the garage below the BFE must be constructed with flood resistant materials. See **Section 5.1.B**.
2. A garage attached to a nonresidential structure must meet the above requirements or be dry floodproofed. For guidance on below-grade parking areas, see FEMA Technical Bulletin TB 6.

b. Detached garages and accessory structures.

1. An accessory structure used solely for parking (two-car detached garages or smaller) or limited storage (small, low-cost sheds), as defined in **Section 2**, may be constructed such that its floor is below the base flood elevation (BFE), provided the structure is designed and constructed in accordance with the following requirements:
  - a) Use of the accessory structure must be limited to parking or limited storage;
  - b) The portions of the accessory structure located below the BFE must be built using flood-resistant materials;
  - c) The accessory structure must be adequately anchored to prevent flotation, collapse and lateral movement;
  - d) Any mechanical and utility equipment in the accessory structure must be elevated or floodproofed to or above the BFE;

- e) The accessory structure must comply with floodplain encroachment provisions in **Section 5.6**; and
  - f) The accessory structure must be designed to allow for the automatic entry of flood waters in accordance with **Section 5.1.C.3**.
- c. Detached garages and accessory structures not meeting the above standards must be constructed in accordance with all applicable standards in **Section 5.1**.

## **6. Crawl space construction**

This sub-section applies to buildings with crawl spaces up to two feet below grade. Below-grade crawl space construction in accordance with the requirements listed below will not be considered basements.

- a. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Crawl space construction is not allowed in areas with flood velocities greater than five feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer;
- b. The crawl space is an enclosed area below the BFE and, as such, must have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. For guidance on flood openings, see FEMA Technical Bulletin TB 1-93;
- c. Crawl space construction is not permitted in FIRM V Zones. Open pile or column foundations that withstand storm surge and wave forces are required in V Zones;
- d. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawl space used to elevate the building, but also any joists, insulation or other materials that extend below the BFE;
- e. Any building utility systems within the crawl space must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions.
- f. Requirements for all below-grade crawl space construction, in addition to the above requirements, to include the following:
  - 1. The interior grade of a crawl space below the BFE must not be more than two feet below the lowest adjacent exterior grade (LAG), shown as D in figure 3 of Technical Bulletin TB 11-01;
  - 2. The height of the below-grade crawl space, measured from the interior grade of the crawl space to the top of the crawl space foundation wall must not exceed four feet (shown as L in figure 3 of Technical Bulletin TB 11-01) at any point;
  - 3. There must be an adequate drainage system that removes floodwaters from the interior area of the crawl space within a reasonable period of time after a flood event, not to exceed 72 hours; and
  - 4. The velocity of floodwaters at the site should not exceed five feet per second for any crawl space. For velocities in excess of five feet

per second, other foundation types should be used.

## **7. Other Standards**

- a. Where average velocities of flow exceed five feet per second, any fill material used to support the structure and its foundations shall be armored to prevent loss of the fill material.
- b. When fill is not used and velocities of flow are equal to or greater than five feet per second and equal to or less than 10 feet per second, the components used to support the structure shall be designed to resist hydrostatic and hydrodynamic loads.
- c. When fill is not used and velocities of flow exceed 10 feet per second, the use of structural components to support a structure is prohibited.
- d. When depths of water exceed three feet, structural components used to support the structure shall be designed for impact loads.

## **5.2 STANDARDS FOR UTILITIES**

- A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate:
  1. Infiltration of flood waters into the systems; and
  2. Discharge from the systems into flood waters.
- B. On-site waste disposal systems shall be located to avoid impairment to them, or contamination from them, during flooding.

## **5.3 STANDARDS FOR SUBDIVISIONS AND OTHER PROPOSED DEVELOPMENT**

- A. All new subdivision proposals and other proposed development, including proposals for manufactured home parks and subdivisions, greater than 50 lots or five acres, whichever is the lesser, shall:
  1. Identify the special flood hazard areas and base flood elevations.
  2. Identify the elevations of the lowest floors of all proposed structures and pads on the final plans.
  3. If the site is filled above the base flood elevation, include the following as-built information for each structure certified by a registered civil engineer or licensed land surveyor and provided as part of an application for a Letter of Map Revision based on Fill (LOMR-F) to the Floodplain Administrator:
    - a. Lowest floor elevation.
    - b. Pad elevation.
    - c. Lowest adjacent grade.
- B. All subdivision proposals and other proposed development shall be consistent with the need to minimize flood damage.

- C. All subdivision proposals and other proposed development shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- D. All subdivisions and other proposed development shall provide adequate drainage to reduce exposure to flood hazards.

#### **5.4 STANDARDS FOR MANUFACTURED HOMES**

- A. All manufactured homes that are placed or substantially improved, on sites located: (1) outside of a manufactured home park or subdivision, (2) in a new manufactured home park or subdivision, (3) in an expansion to an existing manufactured home park or subdivision or (4) in an existing manufactured home park or subdivision, upon which a manufactured home has incurred substantial damage as the result of a flood, shall:
  - 1. Within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot above the base flood elevation and be securely fastened to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
  - 2. Within Zones V1-30, V and VE on the community's Flood Insurance Rate Map, meet the requirements of **Section 5.7**.
- B. All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH, AE, V1-30, V and VE on the community's Flood Insurance Rate Map that are not subject to the provisions of **Section 5.4.A** will be securely fastened to an adequately anchored foundation system to resist flotation, collapse, and lateral movement, and be elevated so that either the:
  - 1. Lowest floor of the manufactured home is at least one foot above the base flood elevation; or
  - 2. Manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade.

Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered civil engineer or licensed land surveyor and verified by the County building inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

#### **5.5 STANDARDS FOR RECREATIONAL VEHICLES**

- A. All recreational vehicles placed in FIRM Zones A1-30, AH, AE, V1-30 and VE will either:
  - 1. Be on the site for fewer than 180 consecutive days; or
  - 2. Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently

- attached additions; or
3. Meet the permit requirements of **Section 4.3** of this ordinance and the elevation and anchoring requirements for manufactured homes in **Section 5.4**.
- B. Recreational vehicles placed on sites within Zones V1-30, V and VE on the community's Flood Insurance Rate Map will meet the requirements of **Section 5.5.A** and **Section 5.7**.

## **5.6 FLOODWAYS**

Since floodways are an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Until a regulatory floodway is adopted, no new construction, substantial development, or other development (including fill) shall be permitted within FIRM Zones A1-30 and AE, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other development, will not increase the water surface elevation of the base flood more than one foot at any point within the unincorporated areas of Ventura County.
- B. Encroachments, including fill, new construction, substantial improvements, and other development, are prohibited within an adopted regulatory floodway unless certification by a registered civil engineer is provided demonstrating that the proposed encroachment will not result in any increase in flood levels during the occurrence of the base flood discharge. Placement of new residential structures within the adopted regulatory floodway is prohibited.
- C. If **Sections 5.6.A & B** are satisfied, all new construction, substantial improvement, and other proposed new development shall comply with all other applicable flood hazard reduction provisions of **Section 5**.

## **5.7 COASTAL HIGH HAZARD AREAS**

Within coastal high hazard areas, Zones V, V1-30 and VE, as established under **Section 3.2**, the following standards shall apply:

- A. All new residential and non-residential construction, including substantial improvement and substantial damage, shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated one foot above the base flood level. The pile or column foundation and structure attached thereto shall be anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable state or local building standards.
- B. All new construction and other development shall be located on the landward side of the reach of mean high tide.

- C. All new construction and substantial improvement shall have the space below the lowest floor free of obstructions or constructed with breakaway walls as defined in **Section 2** of this ordinance. Such enclosed space shall not be used for human habitation and will be usable solely for parking of vehicles, building access or storage.
- D. Fill shall not be used for structural support of buildings.
- E. Man-made alteration of sand dunes which would increase potential flood damage is prohibited.
- F. The Floodplain Administrator shall obtain and maintain the following records:
  - 1. Certification by a registered engineer or architect that a proposed structure complies with **Section 5.7.A**; and
  - 2. The elevation (in relation to mean sea level) of the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings or columns) of all new and substantially improved structures, and whether such structures contain a basement.

## **5.8 ALLUVIAL FANS**

Areas subject to alluvial fan flooding have irregular flow paths that result in erosion of existing channels and the undermining of the fill material. Those areas are identified on the Flood Insurance Rate Map as AO zones with velocities. In such areas:

- A. All structures must be securely anchored to minimize the impact of the flood and sediment damage.
- B. All new construction and substantial improvements of structures shall have the lowest floor, including basement, elevated to or above the depth number plus one foot.
- C. All fill materials must be armored to protect the material from the velocity of the flood flow.
- D. All proposals for subdivision development must provide a mitigation plan that identifies the engineering methods used to: (1) protect the structures from erosion and scour caused by the velocity of the flood flow; and (2) capture or transport flood and sediment flow through the subdivision to a safe point of disposition.

## **SECTION 6.0**

### **VARIANCE PROCEDURE**

#### **6.1 NATURE OF VARIANCES**

A variance is for floodplain management purposes only. Insurance premium rates are determined by statute according to actuarial risk and will not be modified by the granting of a variance. Variances pertain to property and are not personal in nature. In order to vindicate

the purposes of this ordinance, variances should be granted only as a last resort and only to the extent necessary.

## **6.2 STANDARDS AND PROCEDURES FOR ISSUING VARIANCES**

The County Board of Supervisors may issuance variances from the requirements of this ordinance in accordance with this section.

- A. Variances may be issued for new construction, substantial improvement, and other proposed new development to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided the criteria in **Section 6.2.E** are met.
- B. Variances may be issued for new construction, substantial improvement, and other proposed new development necessary for the conduct of a functionally dependent use provided that the criteria in **Section 6.2.E** are met and that the structure or other development is protected by methods that minimize flood damages during the base flood and does not result in additional threats to public safety and does not create a public nuisance.
- C. Variances may be issued other than as provided for in **Sections 6.2.A & B** only if the criteria in **Section 6.2.E** are met, in extraordinary circumstances and based on a heightened technical justification.

### **D. Application**

- a. Applications for variances shall submitted to the Director on such forms as the Director may prescribe.
- b. The Director may require the applicant to submit any information necessary to evaluate the application under this **Section 6.0**.
- c. Applications shall be accompanied by payment of all applicable fees.

### **E. Criteria**

- a. Variances shall not be issued within any mapped regulatory floodway if any increase in flood levels during the base flood discharge would result.
- b. Variances shall only be issued upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create a nuisance, cause fraud and victimization of the public, or conflict with existing local laws or ordinances.
- c. Variances shall only be issued upon a determination that the variance is the minimum necessary considering the flood hazard, to afford relief. "Minimum necessary" means to afford relief with a minimum of deviation from the requirements of this ordinance. For example, in the case of variances to an elevation requirement, this means the County Board of Supervisors need not grant permission for the applicant to build at grade, or even to whatever elevation the

applicant proposes, but only to that elevation which the County Board of Supervisors believes will both provide relief and preserve the integrity of the local ordinance.

- F. In passing upon requests for variances, the County Board of Supervisors shall consider the standards and purposes of this ordinance, and the following matters:
- a. Danger that materials may be swept onto other lands to the injury of others;
  - b. Danger of life and property due to flooding or erosion damage;
  - c. Susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the existing individual owner and future owners of the property;
  - d. Importance of the services provided by the proposed facility to the community;
  - e. Necessity to the facility of a waterfront location, where applicable;
  - f. Availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  - g. Compatibility of the proposed use with existing and anticipated development;
  - h. Relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
  - i. Safety of access to the property in time of flood for ordinary and emergency vehicles;
  - j. Expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site;
  - k. Costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges; and
  - l. Any other relevant factors.
- G. The Board of Supervisors may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
- H. The Director shall give any applicant to whom a variance is granted signed, written notice that:
1. The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and
  2. Such construction below the base flood level increases risks to life and property.
- A copy of the notice shall be recorded by the Floodplain Administrator in the Office of the County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.
- I. The Director shall maintain a record of all variances granted, including justification for their issuance, and report such variances issued in the biennial report submitted to the Federal Emergency Management Agency.

### Article 3. Severability

This ordinance and the various parts thereof are hereby declared to be severable. Should any section of this ordinance be declared by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

PASSED AND ADOPTED this 27<sup>th</sup> day of March, 2018, by the following vote:

AYES: Supervisors Bennett, Parks, Long, Zaragoza, Foy

NOES: none

ABSENT: none



CHAIR, BOARD OF SUPERVISORS

ATTEST:

MICHAEL POWERS  
Clerk of the Board of Supervisors  
County of Ventura, State of California



By: Lou Jannis

Deputy Clerk of the Board