

Chapter 6 Floodway and Flood Plain Districts

6.010 - Purpose

To establish land use regulations for properties situated in floodways and flood plain lands so as to:

- A. Minimize property damage from flood waters and safeguard public health, safety, and general welfare.
- B. Protect human life and health.
- C. Minimize expenditures of public money for costly flood control projects.
- D. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- E. Minimize prolonged business interruptions.
- F. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazards.
- G. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.
- H. Insure that potential buyers are notified that property is in an area of special flood hazard; and
- I. Insure that those who occupy the areas of special flood hazard assume responsibility for their actions.

This article is intended to establish specific restrictions on the use of those properties or portions of properties which are situated within the City of Petaluma and within the Petaluma River Basin Flood Plain and Floodway areas as defined below, and shall apply to all development within those areas.

6.011 - Findings of Fact

- A. The flood hazard areas of the City of Petaluma are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- B. These flood losses can be caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

6.013 - Methods of Reducing Flood Losses

In order to accomplish its purposes, this ordinance includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

6.020 - Flood Plain and Floodway Areas

The Petaluma River Basin Flood Plain and Floodway Areas are defined as those areas of Special Flood Hazard identified by the Federal Insurance Administration through a scientific and engineering report entitled "Flood Insurance Study for the City of Petaluma", dated August 1979, with accompanying Flood Boundary and Floodway Map; and accompanying Flood Insurance Rate Maps. Any official revisions or updates thereto are hereby adopted by reference and declared to be a part of this Ordinance. This Flood Insurance Study is the minimum area of applicability of this Ordinance and may be supplemented by studies for other areas which allow implementation of this Ordinance and which are recommended to the City Council by the Floodplain Administrator. Maps and data which reflect this delineation shall be kept on file in the office of the Director of the City of Petaluma and shall be available for public examination at reasonable times.

6.030 - Definitions

Unless specifically defined below, words or phrases used in this Ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance the most reasonable application.

- A. **Alter.** In the context of this Article and the changing of a riverine or drainage channel, shall mean any activity which decreases, increases, or otherwise causes changes to the carrying capacity of said riverine or drainage channel.
- B. **Appeal.** A request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance or a request for a variance.
- C. **Area of Shallow Flooding.** A designated AO, AH, or VO zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident.
- D. **Area of Special Flood Hazard.** The land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year.
- E. **Base Flood.** The flood having a one percent chance of being equaled or exceeded in any given year (also called the "100 year flood").
- F. **Basement.** Any area of the building having its floor subgrade, i.e., below ground, level on all sides.
- G. **Breakaway Walls.** Any type of wall, whether solid or lattice, and whether constructed on concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by flood waters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:
 - 1. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
 - 2. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.
- H. **Coastal High Hazard Area.** The area subject to high velocity waters, including coastal and tidal inundation or tsunamis. The area is designated on a Flood Insurance Rate Map (FIRM) as Zone V1-V30, VE or V.

- I. **Development.** Any man-made change to improved or unimproved real estate including, but not limited to, buildings or other structures, mining, dredging, filling, grading, excavation, drilling operations, permanent storage of equipment and materials (i.e., lumber yards, junk yards, vehicle storage yards, etc.), excluding the improvement or maintenance of public roads.
- J. **Development Permit.** A zoning permit, grading permit or building permit or any other permit, certificate, or license pertaining to the erection, construction, reconstruction, moving, conversion, alteration, or addition to any building or structure and the use of any land, building or premise, per the procedure set forth in Section 6.070(B).
- K. **Flood or Flooding.** A general and temporary condition of partial or complete inundation of normally dry land areas from: (1) the overflow of inland or tidal waters; (2) the unusual and rapid accumulation or runoff of surface waters from any source; and/or (3) the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in this definition.
- L. **Flood Boundary and Floodway Map.** The official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.
- M. **Flood Insurance Rate Map (FIRM).** An official map of the City of Petaluma or Sonoma County, on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.
- N. **Flood Insurance Study.** The official report provided by the Federal Insurance Administration. The report contains flood profiles, as well as the Flood Boundary-Floodway Map, the Flood Insurance Rate Maps, and the water surface elevation of the base flood.
- O. **Floodplain or Flood-prone Area.** Any land area susceptible to being inundated by water from any source (see definition of **flooding**).
- P. **Floodplain Management.** The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.
- Q. **Floodplain Management Regulations.** Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance), and other applications of police power. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.
- R. **Floodproofed.** Watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- S. **Floodproofing.** Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.
- T. **Floodway.** Also referred to as *regulatory floodway*. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.
- U. **Functionally Dependent Use.** A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include

long-term storage or related manufacturing facilities.

- V. **Habitable Floor.** Any floor usable for living purposes, which includes working, sleeping, eating, cooking or recreation, or a combination thereof. A floor used only for storage purposes is not a "habitable floor".
- W. **Highest Adjacent Grade.** The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
- X. **Lowest Floor.** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.
- Y. **Manufactured Home.** A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days.
- Z. **Manufactured Home Park or Subdivision.** A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.
- AA. **Mean Sea Level.** For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.
- BB. **New Construction.** Structures for which the "start of construction" commenced on or after the effective date of this Ordinance.
- CC. **No Net Fill.** Any material brought on to a project site within a flood plain area that would displace flood waters. All fill shall be offset by the removal of a like amount of material. This material may be removed from a portion of the project site; or it may be removed from a site in the immediate area where the removal of compensating material from the off-site location can be determined, to the satisfaction of the City Engineer and the Sonoma County Water Agency, to result in a reasonable equivalence of hydrology and hydraulics to the situation before the development. For purposes of compliance, one or more individual parcels or an entire reach may demonstrate a "zero net fill" balance.
- DD. **Petaluma River Basin.** All significant flooding sources affecting the City of Petaluma including the Petaluma River, Washington Creek, Lynch Creek, Willow Brook, Thompson Creek, Kelly Creek, Adobe Creek, Capri Creek, Corona Creek, and several minor tributaries thereto.
- EE. **Person.** An individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or this state or its agencies or political subdivisions.
- FF. **Regulatory Floodway.** The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.
- GG. **Remedy a Violation.** To bring the structure or other development into compliance with State or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance to a level acceptable to the City. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.
- HH. **Riverine.** Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

- II. **Special Flood Hazard Area (SFHA).** An area having special flood or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99, AH, V0, V1-V30, VE or V.
- JJ. **Start of Construction.** Includes substantial improvements, rehabilitations, additions and reconstructions, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of a slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or placement of a manufactured home on foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or sidewalks; nor does it include excavation for a basement, footing, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.
- KK. **Structure.** A walled and/or roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.
- LL. **Substantial Improvement.** Any repair, reconstruction, rehabilitation, addition or improvement of a structure, the cost of which exceeds 50 percent of the market value of the structure, not inclusive of the land value, before the start of construction of the improvement either (1) before the improvement or repair is started; or (2) if the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimension of the structure. The term does not, however, (1) include any project for the improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or (2) any alteration of a structure listed on the National Register of Historic Places or a State of City Inventory of Historic Places provided that the alteration will not preclude the structure's continued designation as a historic structure.
- MM. **Variance.** A grant of relief from the requirements of this ordinance which permits construction in a manner that would otherwise be prohibited by this ordinance.
- NN. **Violation.** The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

6.040 - Flood Plain/Flood Prone Area – Combining District (FP-C)

All areas within the boundaries of the "Area of Special Flood Hazard" but outside the "Floodway" areas are hereby zoned to the (FP-C) Flood Plain-Combining District.

- A. **Effect of Zone.** Areas zoned Flood Plain-Combining District (F-C): the regulations of the underlying zoning district shall be combined with and apply in addition to the provisions of this article. Where any conflict may exist between the requirements of this ordinance and other zoning districts, the provisions of this article shall apply.
- B. **Restrictions in Zone.** Any permitted principal use, accessory use, or conditional use in any underlying zoning district shall require a development permit in the FP-C District per Section 6.070(B) and may be permitted only in accordance with the provisions of this article.

6.050 - Floodway District (FW)

All areas within the boundaries of the "Areas of Special Flood Hazard" and identified as "Floodway" areas are zoned Floodway.

- A. **Encroachments in Floodway.** Since the floodway is an extremely hazardous area due to the velocity of flood

waters which carry debris, potential projectiles, and erosion potential, no encroachments within Floodway lands are permitted; including fill, new construction, intensification of existing use, change to more intensive use, substantial improvements, and other development, except as specified herein as permitted or conditional land uses, and provided that a certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. **Permitted Uses, Floodway Districts.** The following uses are permitted upon obtaining a Development Permit per Section 6.070(B) without a Use Permit where modification or removal of native vegetation, including trees, is not required:

1. Open space agricultural uses not requiring a fence or closed building such as cropland, orchards, and livestock feeding and grazing.
2. Circuses, carnivals, and other similar transient amusement enterprises provided a zoning permit has been obtained from the Community Development Department.
3. Modification of Native or Riparian Vegetation. Where modification or removal of native or riparian vegetation is required, such modification or removal may be permitted after obtaining a development permit consisting of written approval from the Director, provided that such proposed modifications in the Flood Plain have been found to be consistent with the General Plan.
4. Any other open type of use as determined by the Zoning Administrator (Director of Planning) to be of the same general character as the above permitted uses.
5. Periodic dredging of silt material from the navigable portions of the Petaluma River for maintenance purposes, when said silt material is removed from the floodway area.

C. **Conditional Uses, Floodway District.** The following uses may be permitted after approval of a conditional use permit by the City of Petaluma:

1. Open air public and private recreational facilities such as parks, golf courses, and athletic fields.
2. Private and public docking, mooring, and boat launching facilities, providing such facilities shall be designed and constructed so as not to restrict the carrying capacity of the designated floodway.
3. Above-ground public utility and private service facilities such as water and sanitation pipe lines, telecommunication facilities in accordance with Chapter 14.44 of the Petaluma Municipal Code, roads, bridges, and similar facilities, providing such facilities shall be designed and constructed so as not to restrict the carrying capacity of the floodway.
4. Improvements in stream channel alignment, cross section, and capacity including modification of river bank and flood protection levels, other than periodic dredging of material from the navigable portions of the Petaluma River for maintenance purposes, when said material is removed from the floodway area.

6.060 - Rezoning of Flood Hazard Lands

All areas not within the City of Petaluma but within the boundaries of the "Areas of Special Flood Hazard" identified by the Federal Insurance Administration through a scientific and engineering report entitled "The Flood Insurance Study for the County of Sonoma" dated May 31, 1979, or any updates thereto and which are also within the City of Petaluma planning area as shown on the Petaluma General Plan are hereby rezoned to the FP-C (Flood Plain-Combining Zone) or FW (Floodway Zone) in accordance with the principles set out in Sections 6.040 through 6.050 and this Chapter.

6.070- General Provisions

The provisions of this chapter are applicable to all Areas of Special Flood Hazard within the City of Petaluma.

- A. **Compliance.** No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the term of this article and other applicable regulations. Violations of the provisions of this article by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Nothing herein shall prevent the City Council from taking such lawful action as is necessary to prevent or remedy any violation.
1. **Abrogation and Greater Restrictions.** This article is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this article and another article, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
 2. **Interpretation.** In the interpretation and application of this article, all provisions shall be:
 - a. Considered as minimum requirements;
 - b. Liberally construed in favor of the governing body; and
 - c. Deemed neither to limit nor repeal any other powers granted under state statutes.
- B. **Development Permit Required.** No structure or land shall hereafter be located, extended, converted or altered within FP-C (Flood Plain-Combining Zone) or within FW (Floodway Zone) lands without having first received a "development permit" in accordance with the provisions of this article; and for developments requiring use permits, with the provisions of Section 24.030.

Development permit applications shall be reviewed by the Planning Director and the requirements of this ordinance enforced in accordance with Chapter 26 (Enforcement, Violations and Penalties) of this Zoning Ordinance.

Application for a Development Permit shall be made on forms furnished by the Floodplain Administrator and may include, but not be limited to: plans drawn to scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

1. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; in Zone AO or VO, elevation of the highest natural grade and lowest proposed elevation of lowest floor of all structures.
 2. Proposed elevation in relation to mean sea level to which any structure will be floodproofed;
 3. All appropriate certifications listed in Section 6.080(C) of this ordinance; and
 4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- C. **Designation of the Floodplain Administrator.** The Planning Director or his/her designee is hereby appointed to administer and implement this ordinance by granting or denying development permits in accordance with its provisions.
- D. **Residential Construction (except Mobile Home Parks).** New construction and substantial improvement of any residential structure permitted in FP-C (Flood Plain-Combining) zones shall have the lowest habitable floor, including basement, elevated at least 12 inches above the level of the base flood elevation or depth number specified on the FIRM (Flood Insurance Rate Map), whichever applies to the area, unless otherwise restricted in

Section 6.070(D2). Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a registered professional engineer or surveyor, to be properly elevated. The datum for this elevation shall be as specified in this article. Such certification or verification shall be provided to the Floodplain Administrator.

1. **Manufactured Home Parks.** No new manufactured homes shall be placed within floodway areas. Existing manufactured home parks within flood plain areas may be expanded and new manufactured homes parks constructed only when the lowest floor of each manufactured home of such park is elevated at least 12 inches above the base flood elevation on reinforced piers or other foundation elements equal in force, unless otherwise restricted in Section 6.070 (D2), and adequate access and drainage are provided. Existing manufactured home parks in floodway areas may not be expanded under any circumstances.

All applications for new mobile home parks/subdivisions, or ten percent or greater physical expansion in the number of mobile homes existing prior to the adoption of this ordinance, located in a Floodplain, shall include an emergency evacuation plan describing how property and life will be protected in the event of flooding.

2. **Zero Net Fill.** A zero net fill policy covers the area along the Petaluma River west of the freeway, upstream of the Payran Street Bridge and including the area east of the freeway and west of Old Redwood Highway (the majority of this area is known generally as Redwood Business Park II). In this area, clearance above base 100 year flood elevation for finished floors shall be a minimum of two feet, and zero net fill as defined shall apply to any proposed development activity.

- E. **Nonresidential Construction.** New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall be subject to the restrictions of this article, and shall either have the lowest floor, including basement, elevated 12 inches or more above the level of the base flood elevation or depth number specified on the FIRM (Flood Insurance Rate Map) unless otherwise restricted in Section 6.070 (E)(4); or, together with attendant utility and sanitary facilities, shall:

1. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
3. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the Floodplain Administrator.

- F. **Zero Net Fill.** A zero net fill policy covers the area along the Petaluma River west of the freeway, upstream of the Payran Street Bridge and including the area along Willowbrook Creek east of the freeway downstream of Old Redwood Highway (this area know generally as Redwood Business Park II). In this area, clearance above base 100 year flood elevation for finished floors shall be a minimum of two feet, and zero net fill as defined shall apply to any proposed development activity.

- G. **Standards of Construction.** In all areas of special flood hazards designated FP-C, the following standards are required:

1. **Anchoring.**
 - a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

- b. All manufactured homes shall meet the anchoring standards of Section 6.070 (F6).

2. Construction Materials and Methods.

- a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- c. All new construction and substantial improvements shall be constructed 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.
- d. All new construction and substantial improvements within Zones AH, AO, or VO shall provide adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

3. Elevation and Floodproofing.

- a. All new construction and substantial improvements, shall insure that fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - 1) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; or
 - 2) Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.
- b. Manufactured homes shall also meet the standards in Section 6.070 (F6).

4. Utilities.

- a. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters;
- b. On-site water and sewage disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

5. Subdivision Proposals. All subdivision proposals shall comply with the following requirements:

- a. **Subdivision Design.** All subdivision proposals shall be consistent with the need to minimize flood damage.
- b. **Subdivisions - Utilities.** All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood

- damage.
- c. **Subdivisions - Drainage.** All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.
 - d. **Street Elevation Data.** Base flood elevation data shall be provided for all subdivision proposals within FP-C (Flood Plain-Combining Zone) lands.
 - e. **Subdivisions - Erosion Control.** The perimeters of all earth pads permitted within (FP-C) floodplain areas shall be engineered to prevent erosion of the pad due to water velocities of base flood. A registered professional engineer shall certify that this subsection is satisfied and a copy of such certification shall be provided to the City Engineer and Chief Building Official.
 - f. **Subdivisions - Storage in Areas of Special Flood Hazard.** The storage or processing of materials that are in time of flooding buoyant, explosive, or could be injurious to property, structures, human, animal or plant life is prohibited in FP-C and F-W districts.
 - g. **Subdivisions - Certification of Floodproofing.** All structures requiring flood proofing shall be so designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capacity of resisting hydrostatic and hydrodynamic loads with effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied and a copy of such certification shall be provided to the Director of Public Works and the Chief Building Official.
6. **Standards for Manufactured Homes.** All new and replacement manufactured homes and additions to manufactured homes shall:
- a. Be elevated so that the lowest floor is at or above the base flood elevation; and
 - b. Be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement.

6.080 - Duties and Responsibilities of the Community Development Department

It shall be the duty of the Community Development Department to:

- A. Review all development permits to assure that the permit requirements of this ordinance have been satisfied, and to insure that construction of development sites are reasonably safe from flooding.
- B. Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.
- C. All records required to be kept pertaining to the provisions of this Chapter shall be maintained in the office of the Planning Department shall be open for public inspection. In regard to this item, the following information is required to be submitted by the applicant:
 - 1. Elevation in relation to mean sea level, of the lowest habitable floor (including basement) of all structures as certified by a registered professional engineer or licensed land surveyor;
 - 2. Elevation in relation to mean sea level to which any structure has been floodproofed;
 - 3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing requirements stated in Section 6.070(E); and

4. Description of the extent to which any watercourse will be altered or altered or relocated as a result or proposed development.
- D. Require as a condition of development approval that maintenance is provided within the altered or relocated portion of any watercourse affected or disturbed by the project so that the flood carrying capacity is not adversely affected. For purposes of this article, "adversely affected" means that the cumulative affect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point.
 - E. **Use of Other Base Flood Data.** When base flood elevation data has not been provided in accordance with Section 6.020, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer Section 6.070(F). Any such information shall be submitted to the City Council for adoption.
 - F. Whenever a riverine is to be altered or relocated:
 1. Notify the California Department of Water Resources prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;
 2. Require that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.
 - G. Obtain and maintain for public inspection and make available as needed:
 1. The certification required in Section 6.080(C) (floor elevations);
 2. The certification required in Section 6.070(D) (elevations in areas of shallow flooding);
 3. The certification required in Section 6.070(E) (elevation or floodproofing of non-residential structures).
 4. The certification required in Section 6.070(F)(3) (wet floodproofing standard);
 5. The certified elevation required in Section 6.070(F)(5) (subdivision standards);
 6. The certification required in Section 6.050(A) (floodway encroachments).
 - H. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 24.070.
 - I. Take action to remedy violations of this article as specified in Section 6.070(A) herein.

6.090 - Warning and Disclaimer of Liability

The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on occasion. Flood heights may be increased by man-made or natural causes. This article does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This article shall not create liability on the part of the City of Petaluma or by any officer or employee thereof for any flood damages that result from reliance on this article or any administrative decision made thereunder.

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