Article 1. Floodplain Management

Sec. 15-1.1 Legislative Findings of Fact; Purpose and Objectives.

(a) Findings of Fact. Certain areas of the County are subject to periodic flooding caused by heavy rain storms, high wave action, and tsunamis which 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. These flood losses are 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.

(b) Statement of Purpose. It is the purpose of this Article to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

(1) To protect human life and health;

(2) To minimize expenditure of public money for costly flood control projects;

(3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) To minimize prolonged business interruptions;

(5) To minimize damage to public facilities and utilities located in areas of special flood hazard;

(6) To help maintain a stable tax base by minimizing future flood loss;

(7) To assist in notifying potential buyers that property is in an area of special flood hazard; and

(8) To insure that those who occupy areas of special flood hazard assume responsibility for their actions.

(c) Methods of Reducing Flood Losses. In order to accomplish its purpose, this Article includes methods and provisions for:

(1) Requiring that facilities be protected to minimize flood damage at the time of initial construction;

(2) Controlling filling, grading, dredging, and other development which may increase flood damage;

(3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters; and

(4) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. (Ord. No. 155, January 7, 1972; Sec. 15-1.1, R.C.O. 1976; Ord. No. 416, October 28, 1981; Ord. No. 630, July 16, 1993; Ord. No. 831, September 9, 2005)

Sec. 15-1.2 General Provisions.

(a) Statutory Authority. This Article is enacted pursuant to the U.S. National Flood Insurance Act of 1968 (Public Laws 90-418 and 91-152), as amended, and the U.S. Flood Disaster Protection Act of 1973 (Public Law 93-234), as amended.

(b) Lands Subject to this Article. This Article shall apply to all areas of special flood hazards identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the County of Kaua'i," with accompanying Flood Insurance Rate Maps with panel numbers 0030E, 0035E, 0055E, 0060E, 0065E, 0080E, 0090E, 0095E, 0110E, 0120E, 0130E, 0145E, 0185E, 0192E, 0194E, 0201E, 0202E, 0203E, 0204E, 0210E, 0211E, 0212E, 0213E, 0214E, 0232E, 0251E, 0252E, 0253E, 0254E, 0256E, 0257E, 0258E, 0259E, 0267E, 0286E, 0287E, 0288E, 0289E, 0291E, 0292E, 0293E, 0294E, 0307E, 0309E, 0311E, 0312E, 0313E, 0314E, 0317E, 0318E, 0326E, 0327E, 0328E, 0329E, 0336E, 0352E, 0356E dated September 16, 2005 and any subsequent

revisions and amendments; and lands outside the identified special flood hazard areas encompassing and adjacent to a river, stream, stormwater channel, outfall area, or other inland water or drainage facility determined by the County Engineer to be subject to special flood hazards. The different special flood hazard areas are as follows:

(1) Flood fringe—AE and AH zones.

(2) Floodway.

(3) Coastal high hazard (tsunami)—VE zones.

(4) General floodplain—A, X and D zones.

(5) Land adjacent to drainage facility.

(c) Compliance; Effective Date. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this Article and other applicable regulations.

This Article shall take effect on September 16, 2005.

(d) Other Laws and Regulations. All construction and improvements subject to this Article shall comply with other applicable laws and regulations including, but not limited to, the Comprehensive Zoning Ordinance, Building Code, Electrical Code, Plumbing Code, Subdivision Ordinance, and Sediment and Erosion Control Ordinance. This Article, designed to reduce flood losses, shall take precedence over any less restrictive, conflicting laws, ordinances, and regulations.

(e) Interpretation. In the interpretation and application of this Article, all provisions shall be:

(1) Considered as minimum requirements;

(2) Liberally construed in favor of the County; and

(3) Deemed neither to limit nor repeal any other powers granted under State statutes.

(f) 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 rare occasions. 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 County of Kaua‘i, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this Article or any administrative decision lawfully made thereunder. (Ord. No. 155, January 7, 1972; Sec. 15-1.1, R.C.O. 1976; Ord. No. 416, October 28, 1981; Ord. No. 630, July 16, 1993; Ord. No. 696, September 25, 1995; Ord. No. 788, August 13, 2002; Ord. No. 831, September 9, 2005)

Sec. 15-1.3 Definitions.

Unless plainly evident from the context that a different meaning is intended, the words and terms used herein are only applicable to this Article and defined as follows:

“Administrator” means the Federal Insurance Administrator.

“Area of special flood hazard” is the land in the floodplain within a community subject to a one percent (1%) or greater chance of flooding in any given year or determined by the County Engineer in areas adjacent to drainage facilities not identified in the FIRM. The areas may be designated in the FIRM as Zones A, AH, AE, or VE. For purposes of these regulations, the term “special flood hazard area” is synonymous in meaning with the phrase “area of special flood hazard.”

“Base flood” means the flood having a one percent (1%) chance of being equalled or exceeded in any given year, otherwise commonly referred to as the 100-year flood.

“Base flood elevation” means the water surface elevation of the base flood.

“Breakaway walls” mean any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which are not part of the structural support of the building and which are so designed as to breakaway, under abnormally high tides or wave action, without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

"Coastal high hazard area" means the area subject to high velocity waters, including but not limited to coastal and tidal inundation or tsunamis. The area is designated on a FIRM as Zone VE.

"County" means the County of Kaua'i.

"County Engineer" means the County Engineer of the County of Kaua'i or his/her authorized representative.

"Development" means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

"Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"Flood or flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal water resulting from any source, such as tsunamis, or the unusual and rapid accumulation of runoff or surface waters from any source.

"Flood fringe area" means the portion of the floodplain outside the floodway, designated as AE, AO, and AH zones on the FIRM.

"Flood insurance rate map (FIRM)" means the official map on which the Federal Insurance Administration has delineated the areas of special flood hazards, risk premium zones applicable, base flood elevations, and the floodway.

"Flood insurance study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, and the water surface elevation of the base flood.

"Floodway" means 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.

"General floodplain area" means the area consisting of the approximate floodplain area as delineated on the flood maps, identified as A, D and X zones on the FIRM, where detailed engineering studies have not been conducted by the Federal Insurance Administration to delineate the flood elevations and floodway.

"Historic structure" means any structure that is:

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(A) By an approved state program as approved by the Secretary of the Interior or

(B) Directly by the Secretary of the Interior in states without approved programs.

"Lowest floor" means 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 Chapter.

"Manufactured home" means 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 attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

"New construction" for floodplain management purposes means structures for which the start of construction commenced on or after the effective date of November 4, 1981, and includes any subsequent improvements to such structures.

"New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

"Recreational vehicle" means a vehicle which is: (1) built on a single chassis; (2) four hundred (400) square feet or less when measured at the largest horizontal projection; (3) designed to be self-propelled or permanently towable by a light duty truck; and (4) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

"Repetitive loss structure" means a home or business structure damaged by floods two (2) times in the past ten (10) years, where the cost of fully repairing the flood damage to the building, on the average, equaled or exceeded twenty-five percent (25%) of its market value at the time of each flood.

"Special flood hazard area" means the same as "area of special flood hazard."

"Start of construction" (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)) includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within one hundred eighty (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 pouring of a slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, 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. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

"Structure" means a walled and roofed building and includes gas or liquid storage tanks that is principally above ground and include manufactured homes such as mobile homes.

"Substantial improvement" means any cumulative series of repairs, reconstruction, improvements, or additions to a structure over a ten (10) year period, where the cumulative cost equals or exceeds fifty percent (50%) of the market value of the structure before the start of construction of the first improvement during that ten (10) year period. 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 dimensions of the structure. The value of any substantial improvement shall be determined by the County Engineer or his/her authorized representative. The term does not, however, include either: (1) any project for improvement of a structure to correct existing violations of a State or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or (2) any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

"Tsunami" means a great sea wave produced by submarine earth movement or volcanic eruption.

"Violation" means 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 Floodplain Management Ordinance is presumed to be in violation until such time as that documentation is provided. (Ord. No. 155, January 7, 1972; Sec. 15-1.1, R.C.O. 1976; Ord. No. 416, October 28, 1981; Ord. No. 630, July 16, 1993; Ord. No. 831, September 9, 2005)

Sec. 15-1.4 Administration.

(a) Permits for All Proposed Construction or Other Development in the County. Permits for all proposed construction or other development in the County, including building permits, certificates of occupancy, grading permits, subdivision approvals, and use, zoning and shoreline management area (SMA) permits, are required so that

it may be determined whether such construction or other development is proposed within flood-prone areas. No building permit, certificate of occupancy, or grading permit shall be issued or subdivision shall be approved without the approval of the County Engineer or his/her authorized representative, designated as the Floodplain Manager of the County of Kaua‘i, with respect to compliance with the provisions of this Article.

(b) Certificate of Occupancy Required in Special Flood Hazard Areas. Notwithstanding Section 307 of the County Building Code, a certificate of occupancy shall be required before any new construction or substantial improvement in the special flood hazard areas may be used or occupied.

(c) County Engineer. The County Engineer and his or her authorized representative, with the cooperation and assistance of other County departments, shall administer the provisions of this Article.

(d) Duties and Responsibilities of the County Engineer. The duties and responsibilities of the County Engineer shall include but not be limited to:

(1) Permit Review.

(A) Review all building permits, certificates of occupancy, grading permits, and subdivision proposals to determine whether the requirements of this Article have been satisfied.

(B) See that all other required State and Federal permits have been obtained.

(C) Review permits and proposals to determine that the site is reasonably safe from flooding.

(D) Review permits and proposals to determine that the proposed construction or development will not decrease the flood-carrying capacity of the area of special flood hazard.

(2) Information to be Obtained and Maintained by the Floodplain Manager. Obtain and maintain for public inspection:

(A) The flood insurance study and flood insurance rate maps for the County;

(B) The certified elevation of the lowest floor;

(C) The floodproofing certification for spaces below the base flood level in nonresidential structures;

(D) The certified final pad elevation where the site is filled above the base flood level;

(E) The certification that an encroachment in the floodway will not result in any increase in flood levels during base flood discharge; and

(F) The certification of elevation and structural support for structures in the coastal high hazard (i.e., tsunami) area. This certificate of elevation shall state the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement.

(3) Interpretation of Maps. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards.

(4) Use of Other Base Flood Data. When base flood elevation data has not been provided by the Federal Insurance Administration, the County Engineer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from Federal, State, or other sources, in order to administer this Article.

(5) Submit New Technical Data. A community’s base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six (6) months after the date such information becomes available, a community shall notify the administrator of the changes by submitting technical or scientific data through the letter of map revision process. (Ord. No. 155, January 7, 1972; Sec. 15-1.1, R.C.O. 1976; Ord. No. 416, October 28, 1981; Ord. No. 630, July 16, 1993; Ord. No. 685, May 10, 1995; Ord. No. 831, September 9, 2005)

Sec. 15-1.5 Construction and Development Standards.

(a) Flood Fringe. The flood fringe areas are identified on the FIRMs as AE, and AH zones.

(1) Anchoring. All new construction, repetitive loss structures, and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(2) Construction Materials and Methods.

(A) All new construction, repetitive loss structures, and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(B) All new construction, repetitive loss structures, and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(C) All electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during the conditions of flooding.

(3) Elevation and Floodproofing.

(A) Residential Structures. All new construction, repetitive loss structures, and substantial improvements of residential structures within Al-30, AE, and AH zones on the community's FIRM shall have the lowest floor (including basements) elevated to or above the base flood level. Fully enclosed areas below the lowest floor that are useable solely for parking of vehicles, building access, or storage in an area other than a basement 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 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: A minimum of two (2) openings having a total net area of not less than one (1) 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 (1) 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.

(B) Nonresidential Structures. All new construction, repetitive loss structures, and substantial improvements of nonresidential structures shall either:

(i) Elevate the lowest floor, including basement, to or above the base flood elevation; or

(ii) Together with attendant utility and sanitary facilities be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

(C) All manufactured homes, such as mobile homes, must be elevated above the base flood elevation.

(D) No machinery or equipment which service a building such as furnaces, air conditioners, heat pumps, hot water heaters, washers, dryers, elevator lift equipment, electrical junction and circuit breaker boxes, and food freezers, are permitted below the base flood elevation; and all interior wall, floor and ceiling materials located below the base flood elevation must be unfinished and resistant to flood damage; and the walls of any enclosed area below the base flood elevation must be constructed in a manner to prevent flotation, collapse, lateral movement of the structure.

(E) Building Height. Notwithstanding the maximum building height limitations as stated in overall building and wall plate height, provided in Paragraph 8-3.7(b)(1) for single-family detached and attached residential dwellings under the Comprehensive Zoning Ordinance and Paragraph 10-2.4(e)(1) for all structures under the North Shore Development Plan Ordinance, the maximum building height in the flood fringe area shall be as follows:

(i) Within the North Shore Planning Area. No structure shall be higher than twenty-five (25) feet from ground level or the base flood elevation plus fifteen (15) feet, whichever is greater at the site, unless a greater height is authorized by the Planning Commission pursuant to a use permit after review and recommendation by the North Shore Improvement Committee.

(ii) Single-Family Dwellings Outside the North Shore Special Planning Area. No single-family detached and attached dwellings outside the North Shore special planning area shall be higher than thirty (30) feet from ground or the base flood elevation plus fifteen (15) feet, whichever is greater at the site unless otherwise permitted by the Planning Commission.

(4) Water and Sewer.

(A) All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from systems into floodwaters.

(B) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(5) Certification by Engineer or Architect. Building plans for new construction, repetitive loss structures, and substantial improvements shall be certified by a registered professional structural engineer or architect that the new construction is designed in compliance with the requirements of this Section. Prior to the issuance of the certificate of occupancy, the elevation of the lowest floor shall be certified by a registered professional civil engineer or surveyor.

All new construction, repetitive loss structures, and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, be constructed with materials resistant to flood damages and be constructed by methods and practices that minimize flood damages.

(6) In AE zones where no floodway has been designated, no new construction, repetitive loss structures, substantial improvements, or other development (including fill) shall be permitted in the AE zone on the community's FIRM, unless it is demonstrated that the cumulative effect 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 (1) foot at any point within the community.

(b) Floodway. The floodway, identified on the FIRMs, is the watercourse reserved to discharge the base flood.

(1) Development Standard. Encroachments, including fill, new construction, repetitive loss structures, and substantial improvements of structures, are prohibited in the floodway unless certified by a registered professional civil engineer, with supporting data that the encroachment will not cause any increase in base flood elevations during the occurrence of the base flood discharge.

(2) Construction Standards. If permitted pursuant to Paragraph (1) of this Subsection, all new construction, repetitive loss structures, and substantial improvements shall comply with all applicable requirements prescribed in Subsection (a) of this Section and Section 15-1.6.

(3) Certification for Development. A registered professional civil engineer shall certify that the encroachment, including fill, new construction, repetitive loss structures, or substantial improvement will not result in any increase in base flood elevations during the occurrence of the base flood discharges.

(c) Coastal High Hazard (Tsunami). Coastal high hazard areas, more commonly known as tsunami inundation areas, are identified as VE zones on the FIRMs.

(1) Anchoring and Structural Support.

(A) All new construction, repetitive loss structures, and substantial improvements shall be securely anchored on pilings or columns.

(B) Pilings or columns used as structural support shall be designed and anchored so as to prevent flotation, collapse, and lateral movement, due to the effects of wind and water loads acting simultaneously on all building components. The wind and water loading values shall each have a one percent (1%) chance of being equalled or exceeded in any given year.

(C) Fill is prohibited for structural support.

(D) Manmade alteration of sand dunes and mangrove stands is prohibited.

(E) All new construction shall be located landward of the reach of mean high tide.

(2) Construction Materials and Methods.

(A) All new construction, repetitive loss structures, and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(B) All new construction, repetitive loss structures, and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(3) Elevation. All new construction, repetitive loss structures, and substantial improvements shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor, excluding pilings and columns, is elevated to or above the base flood elevation.

(4) Building Height. Notwithstanding the maximum building height limitations as stated in overall building and wall plate height, provided in Paragraph 8-3.7(b)(1) for single-family detached and attached residential dwellings under the Comprehensive Zoning Ordinance and Paragraph 10-2.4(e)(1) for all structures under the North Shore Development Plan Ordinance, the maximum building height in the coastal high hazard area shall be as follows:

(A) Within the North Shore Planning Area. No structure shall be higher than twenty-five (25) feet from ground level or the base flood elevation plus fifteen (15) feet, whichever is greater at the site, unless a greater height is authorized by the Planning Commission pursuant to a use permit after review and recommendation by the North Shore Improvement Committee.

(B) Single-Family Dwellings Outside the North Shore Special Planning Area. No single-family detached and attached dwellings outside the North Shore special planning area shall be higher than thirty (30) feet from ground or the base flood elevation plus fifteen (15) feet, whichever is greater at the site unless otherwise permitted by the Planning Commission.

(5) Enclosure of Space Below Lowest Floor with Breakaway Walls. Space below the lowest floor may be enclosed solely for parking of vehicles, building access, or storage; no machinery or equipment which services a building such as furnaces, air conditioners, heat pumps, hot water heaters, washers, dryers, elevator lift equipment, electrical junction and circuit breaker boxes, and food freezers are permitted; however, enclosure must only be achieved with breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. A breakaway wall shall have a design safe loading resistance of not less than ten (10) and no more than twenty (20) pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of twenty (20) pounds per square foot may be permitted only if a registered professional structural engineer certifies that the design proposed meet the following conditions:

(A) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

(B) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Maximum wind and water loading values to be used in this determination shall each have one percent (1%) chance of being equalled or exceeded in any given year (100-year mean occurrence interval).

(6) Water and Sewer.

(A) All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from systems into floodwaters.

(B) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(7) Certification by Engineer or Architect. Building plans for new construction, repetitive loss structures, and substantial improvements shall be certified by a registered professional structural engineer or architect that the new construction or substantial improvement is designed and methods of construction to be used are in accordance with accepted standards of practice for meeting the requirements of this Section. Prior to the issuance of the certificate of occupancy, the elevation of the bottom of the lowest structural member of the lowest floor shall be certified by a registered professional civil engineer or surveyor.

All new construction, repetitive loss structures, and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of wind and buoyancy, be constructed with materials resistant to flood damages and be constructed by methods and practices that minimize flood damages.

(8) The placement of mobile homes or manufactured homes in the coastal high hazard flood zone is prohibited.

(9) Recreational vehicles placed on sites within Zone VE on the community's FIRM shall either:

(A) Be on the site for fewer than one hundred eighty (180) consecutive days, or

(B) 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.

(d) General Floodplain. The general floodplain, identified as A, X and D zones on the FIRMs, are areas of special flood hazards for which detailed engineering studies were not done by the Federal Insurance Administration to determine the base flood elevations and to identify the floodways.

(1) Determination of Applicable Standards. All new construction, repetitive loss structures, and substantial improvements shall satisfy the requirements of Subsection (a) of this Section, relating to the flood fringe, or Subsection (b) of this Section, relating to the floodway, whichever subsection is determined to be applicable by the County Engineer to the construction or improvement. The County Engineer shall review the proposed development to assure that all necessary permits have been received from those government agencies from which approval is required by Federal or State law. The County Engineer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including information requested of the applicant, to determine base flood elevations and the location of floodways in the general floodplain and to determine whether the proposed building sites or subdivisions (including manufactured home parks) will be reasonably safe from flooding.

(2) Construction and Development Standards. Construction and development standards provided in Subsections (a) and (b) of this Section shall apply as determined by the County Engineer.

(3) Information to be Provided. The following information shall be provided the County Engineer to evaluate the proposed construction on improvement site:

(A) Project location and site plan showing dimensions.

(B) Relationship to floodway and flood fringe areas as determined by flood study.

(C) Topographic data, contours, or spot elevations based on reference marks on flood maps.

(D) Existing and proposed flood-proofing and flood control measures.

(E) Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures; and if the structure has been floodproofed, the elevation to which the structure was floodproofed.

(F) The State of Hawai‘i Commission on Water Resource Management shall be notified prior to any alteration or relocation of a watercourse and a copy of the notification shall be submitted to the Administrator. If the State of Hawai‘i will allow alteration and relocation of streams, the flood carrying capacity within the altered or relocated portion of any watercourse shall be maintained.

(G) A record of all of this information shall be maintained by the Floodplain Manager.

(e) Construction of Development Adjacent to Drainage Facility Outside Identified Special Flood Hazard Areas.

(1) Subject to Review. All new construction, repetitive loss structures, and substantial improvements proposed adjacent to a drainage facility outside of the special flood hazard area identified on the FIRMs shall be subject to review and approval of the County Engineer. Upon request by the County Engineer further information concerning base flood, floodway, surface water run-off, existing and proposed drainage patterns, and other information, including flood studies, findings and opinions by a registered professional civil engineer shall be provided to evaluate potential flooding.

(2) Development and Construction Standards.

(A) The County Engineer shall determine the applicability of the various development and construction standards provided in this Article based upon best information available from a Federal, State, or other source, including information provided by the applicant.

(B) No drainage facility shall be modified, constructed, lined, or altered in any way unless approved by the County Engineer. (Ord. No. 155, January 7, 1972; Sec. 15-1.1., R.C.O. 1976; Ord. No. 416, October 28, 1981; Ord. No. 630, July 16, 1993; Ord. No. 831, September 9, 2005)

Sec. 15-1.6 Development Standards for Subdivision Within the Special Flood Hazard Areas.

(a) Standards. All subdivisions within the special flood hazard areas shall:

(1) Be consistent with the need to minimize flood damage;

(2) Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage; and

(3) Have adequate drainage provided to reduce exposure to flood damage.

(b) Identification of Special Flood Hazards and Base Flood Elevations.

(1) Subdivision Applications. All subdivision applications shall identify the areas of special flood hazards and base flood elevations on the proposed site. If such information is not provided by the FIRMs, the County Engineer shall request and the applicant shall provide this information for all new subdivision applications and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than fifty (50) lots or five (5) acres, whichever is greater. For subdivisions or developments fifty (50) lots or less or five (5) acres or less, the County Engineer may request and the applicant shall provide such information.

(2) Elevation Information on Approved Plans. All finally approved subdivision plans for subdivisions within the special flood hazard areas shall provide base flood elevations within the lots.

(3) Fill Above Base Flood Elevation. If fill is used to elevate the site of any lot above the base flood elevation, the final ground elevation of the pad shall be certified by a registered professional civil engineer or surveyor. (Ord. No. 155, January 7, 1972; Sec. 15-1.1, R.C.O. 1976; Ord. No. 416, October 28, 1981; Ord. No. 630, July 16, 1993; Ord. No. 831, September 9, 2005)

Sec. 15-1.7 Variance.

(a) Standards. A variance from this Article may be issued by the County Engineer only upon an application meeting the following standards:

(1) There is a good and sufficient cause for requesting a variance;

(2) The applicant will suffer exceptional hardship should the variance be denied;

(3) A variance is the minimum necessary, considering the flood hazard, to afford relief; and

(4) A variance will not increase flood heights.

(b) Considerations Applicable to Standards. The Federal Emergency Agency (FEMA) has developed principles and guidelines for the approval of any variance, and the intent of such is incorporated herein. These indicate that variances should be rarely granted, and compliance to flood requirements is a necessity.

An explanation of the standards are as follows:

(1) Good and Sufficient Cause for Variance. Under this criteria, the applicant must demonstrate that the variance request is for land which has physical characteristics so unusual that complying to flood requirements will create exceptional hardship to the applicant or surrounding land owners. The unique characteristics must pertain to the land itself and not the structure, its inhabitants or the property owner.

Under this criteria, only exceptional instances should arise where the physical characteristics of properties create a hardship sufficient to justify granting a variance. Even in a fairly common situation where an undeveloped lot is surrounded by properties with structures built at grade and or below flood levels, a variance cannot be justified since an applicant can erect the concerned structure on pilings, etc.

(2) Exceptional Hardships. Under this criteria, the hardship that would result from failure to grant a requested variance must be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors cannot, as a rule, qualify as exceptional hardship.

As an example, a member of a household is physically handicapped and wants a variance to build the dwelling at grade or at a lower level for access purposes. A variance should not be issued because the owner can construct a ramp or elevator to meet flood requirements. Elevation will allow the infirm or handicapped person to be evacuated in the early stage of flooding, and, if there is insufficient warning or help in evacuating that person, then in all likelihood he or she can survive the flood by simply remaining in the home safely above the levels of floodwaters.

(3) Increased Flood Heights. Under this criteria, an applicant must demonstrate that flood levels will not be raised above the base flood elevations.

(4) Minimum to Afford Relief. Under this criteria, the variance that is granted should be for the minimum deviation from the flood requirements that will still alleviate the hardship.

In the case of variance to an elevation requirement, this does not mean approval to build at grade level or to whatever elevation an applicant proposes, but rather to a level that the County Engineer determines will both provide relief and preserve the integrity of the flood ordinance.

(c) Conditions for Variance. Such conditions may include:

(1) Modification of the construction or substantial improvement including the sewer and water supply facilities.

(2) Limitations on periods of use and operation.

(3) Imposition of operational controls, sureties and deed restrictions.

(4) Requirements for construction of channels, dikes, levees and other flood-protective measures.

(5) Floodproofing measures designed consistent with the regulatory flood elevation, flood velocities, hydrostatic and hydrodynamic forces and other factors associated with the base flood.

(6) Other conditions as may be required by the County Engineer.

(d) Application for Variance. An application for a variance shall be submitted to the County Engineer signed and stamped by a registered professional engineer or architect, and shall include three (3) sets of documents with the following information as may be applicable.

(1) Plans and specifications showing the site and location; dimensions of all property lines and topographic elevation of the lot; existing and proposed structures and improvements, fill, storage area; location and elevations of existing and proposed streets and utilities; floodproofing measures; relationship of the site to the location of the flood boundary; floodway; and the existing and proposed flood control measures and improvements.

(2) Cross-sections and profile of the area and the regulatory flood elevations and profile based on elevation reference marks on flood maps.

(3) Flood study and drainage report in areas where study and report have not been reviewed and accepted by the County.

(4) Description of surrounding properties and existing structures and uses and the effect of the regulatory flood on them caused by the variance.

(5) Evaluation and supporting information for the variance with respect to each of the four (4) factors to be considered by the County Engineer as listed in Subsection (b) of this Section.

(6) An agreement that a covenant will be inserted in the deed and other conveyance documents of the property and filed with the Bureau of Conveyances of the State of Hawai‘i stating that the property is located in a flood hazard area subject to flooding and flood damage; that a flood hazard variance to construct a structure below the base flood elevation will result in increased flood insurance premium rates and increased flood risks to life and property; that the property owners will not file any lawsuit or action against the County for costs or damages or any claim; that the property owners will indemnify and hold harmless the County from liability when such loss, damage, injury, or death results due to flood hazard variance and flooding of the property; and that upon approval of the variance, the covenants shall be fully executed and proof of filing with the Bureau of Conveyances shall be submitted to the County Engineer prior to the issuance of a building permit.

(7) Such other information as may be relevant and requested by the County Engineer.

(e) Notification and Record Keeping. The County Engineer shall notify the applicant in writing over the signature of a County official that (i) the issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to as high as twenty-five dollars ($25.00) for one hundred dollars ($100.00) of insurance coverage, and (ii) such construction below the base flood level increases risk to life and property. Such notification shall be maintained with a record of all variance actions. The County shall (i)

maintain a record of all variance actions, including justification for their issuance, and (ii) report such variances issued in its annual or biennial report submitted to the Administrator. (Ord. No. 831, September 9, 2005)

Sec. 15-1.8 Nonconforming Structures.

Any nonconforming structure existing on the effective date of March 31, 1987, may continue subject to the following conditions:

(a) Any repair, reconstruction, improvement, or addition to a nonconforming structure, if it is considered to be substantial improvement, shall comply with the applicable standards for the special flood hazard areas; provided, however, that substantial improvement of a damaged, destroyed, or demolished structure located in a floodway will not be allowed unless a variance from the flood requirements is obtained.

(b) All relocated structures shall comply with the applicable standards for the special flood hazard area. (Ord. No. 416, October 28, 1981; Ord. No. 500, March 31, 1987; Ord. No. 630, July 16, 1993; Ord. No. 831, September 9, 2005)

Sec. 15-1.9 Penalties and Enforcement.

(a) Any person, firm, or corporation violating any provision of this Article shall be deemed guilty of a misdemeanor and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Article is committed, continued, or permitted, and upon conviction of any such violation such person shall be punished by a fine of not more than five hundred dollars ($500.00) or by imprisonment for not more than ninety (90) days, or by both such fine and imprisonment.

(b) Any building, structure, improvement, or development constructed or maintained contrary to the provisions of this Article is deemed unlawful and a public nuisance. The County may commence a civil action for the abatement, removal, or enjoinment thereof in any manner provided by law.

(c) The remedies provided in this Article are cumulative and nonexclusive. (Ord. No. 416, October 28, 1981; Ord. No. 500, March 31, 1987; Ord. No. 630, July 16, 1993; Ord. No. 831, September 9, 2005)
