

ORDINANCE NO. _____

BILL NO. _____ (2009)

A BILL FOR AN ORDINANCE AMENDING CHAPTER 19.62, MAUI
COUNTY CODE, PERTAINING TO FLOOD HAZARD AREAS

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. Section 19.62.030, Maui County Code, is amended
to read as follows:

"19.62.030 Definitions. Definitions contained in regulations governing the National Flood Insurance Program, 44 CFR 59 through 77, as amended, are incorporated by reference and made a part of this chapter as though set forth fully herein. Where terms are not defined in this chapter, they shall have their ordinary accepted meanings within the context in which they are used or as they are defined in chapter 19.04. The following words and terms used herein are only applicable to this chapter and are defined as follows:

"Architect" means a person who has a license to practice architecture in the State of Hawaii.

"Base flood" means the flood having a one percent chance of being [equalled] equaled or exceeded in any given year (also called the "100-year flood").

"Base flood elevation" means the water surface elevation of the base flood.

"Basement" means any area of a building having its floor below ground level on all sides.

"Breakaway wall" means any type of wall, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic, or any other suitable building material, that is not part of the structural support of a building and which is designed to break away without damaging the structural integrity of the building or other buildings to which it might be carried by floodwaters.

"Coastal high hazard area" means a special flood hazard area subject to high velocity wave action from storms or seismic sources and designated on a flood

insurance rate map (FIRM) as zone [V1-V30,] VE[,] or V.

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

"Director" means the director of the [department of public works,] department of planning, [county] County of Maui, or the director's authorized representative.

"Encroachment" means the advance or infringement of uses, plant growth, fill, excavation, walls, buildings, permanent structures, or development into a floodplain which may impede or alter the flow capacity of a floodplain.

"Engineer" means a person who is licensed to practice civil or structural engineering in the State of Hawaii.

"FEMA" means Federal Emergency Management Agency.

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

["Flood hazard boundary map (FHBM)" means the map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the special flood hazard areas."]

"Flood insurance rate map (FIRM)" means the map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

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

"Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures and properties that reduces flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

"Floodway" means the channel or 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.

"General floodplain" means an area of special flood hazards for which detailed engineering studies were not performed by FEMA to determine the base flood elevations or to identify the floodways, and is identified as zones A, D, or V on the FIRM.

"Highest adjacent grade" means the highest natural elevation of the ground surface before construction next to the proposed walls of a structure.

"Historic structure" means a structure that is: (a) listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) 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; (c) individually listed on a state inventory of historic places pursuant to a historic preservation program approved by the Secretary of Interior; or (d) individually listed on a local inventory of historic places pursuant to a historic preservation program certified either (1) by an approved state program as determined by the Secretary of the Interior or (2) directly by the secretary.

"Limited storage" means a storage area of less than three hundred square feet enclosed by only open wood latticework or insect screening.

"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 modified so as to render the use in violation of the elevation design requirement of this chapter.

"Manufactured home" means a structure (other than a recreational vehicle), 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.

"Market value" means the value determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation that has accrued since the structure was constructed. In determining market value:

1. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry;

2. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the director, but shall not include economic or other forms of external obsolescence; and

3. Replacement costs or accrued depreciation factors different from those in recognized building cost estimating guides may be considered only if such costs or factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

"Mean sea level" means 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.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter, as amended, and includes any subsequent improvements to such structures.

"Recreational vehicle" means a vehicle which is (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projection; (c) designed to be self-propelled or permanently towable by a light duty truck; and (d) 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 structure that was damaged by flood two or more times within any ten-year period, where the cost of fully repairing the flood damage to the structure, on average, equaled or

exceeded twenty-five percent of its market value at the time of each flood.

"Special flood hazard area (SFHA)" means an area having special flood or flood-related erosion hazards, and shown on [an FHBM or] a FIRM as zone A, AO, [A1-A-30,] AE, AEF, A99, AH, [V1-V30,] D, VE, or V.

"Start of construction" includes substantial improvement and other proposed new development 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 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footing, 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 or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erections 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, 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, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank that is principally above ground, and a manufactured home.

"Substantial damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed fifty percent of the market value of the structure (excluding land) before the damage occurred.

"Substantial improvement" means any reconstruction, rehabilitation, addition, or series of reconstruction, rehabilitation, or additions, or other proposed new development of a structure[, the] or repetitive loss structure, in any ten-year period, the cumulative cost of which equals or exceeds fifty

percent of the market value of the structure (excluding land) before the "start of construction" of the first improvement[.] during that ten-year period. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. An improvement shall constitute a substantial improvement only if:

1. The structure was built before June 1, 1981;
2. The structure was constructed after June 1, 1981 and was not within a special flood hazard area at the time of the issuance of the building permit;
3. The structure was constructed after June 1, 1981 and was the subject of a map change that resulted in higher base flood elevations; or
4. The structure was constructed after June 1, 1981 and was the subject of a map change that resulted in a FIRM zone change. The term does not, however, include either:

[(1) any]1. Any project for improvement of a structure to correct existing violations of state or county health, sanitary, or safety specifications; or

[(2) any]2. Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

"Surveyor" means a person who is licensed to practice surveying in the State of Hawaii.

"Violation" means the failure of a structure or other development to be fully compliant with this chapter. A structure or other development without a required elevation certificate, other certification, or other evidence of compliance with this chapter shall be presumed to be in violation until such time as the required certificate or other evidence of compliance is provided.

"Watercourse" means a stream, wash, channel, or other topographic feature on or over which waters flow at least periodically.

"Water surface elevation" means the height, in relation to the national geodetic vertical datum (NGVD) of 1929 (or other datum, where specific), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

"Zone D" means the zone that corresponds to unstudied areas where flood hazards are undetermined but possible."

"Zones A and V" mean the special flood hazard areas that correspond to the one hundred year floodplains that are determined in the flood insurance study by approximate methods, but because detailed hydraulic analyses are not performed for such areas, base flood elevations or depths have not been determined.

"Zoning district" means a zoning district as established by the [county] County of Maui zoning ordinances and a land use district as established by the State Land Use Commission, as applicable."

SECTION 2. Section 19.62.040, Maui County Code, is amended to read as follows:

"19.62.040 Special flood hazard areas. A.
Applicability.

1. This chapter shall apply to all [special flood hazard areas, flood-related erosion hazard areas, and mudslide (i.e., mudflow) hazard areas within the county.] land within the special flood hazard areas and corresponding areas of special flood hazard delineated on the FIRM, as prepared by FEMA. The following special flood hazard areas are established:

- a. Floodway area (floodway in zone AEF);
- b. Flood fringe area (zones AE, AH, AO);
- c. Coastal high hazard area (zones V, VE);
- d. General floodplain area (zones A, D, V).

2. This chapter shall not apply to:

- a. Carnivals, luaus, fairs, and camping tents of a temporary nature that are not in a floodway;
- b. Unfenced, below-grade outdoor swimming pools;
- c. Signs that are not in a floodway;
- d. Demolition; and
- e. Temporary structures and uses incidental to building construction or land development that are not in a floodway, provided the structures and uses are removed

upon completion of the work, or as directed by the department.

B. Identification of Special Flood Hazard Areas. [The special flood hazard areas identified by the Federal Insurance Administration (FIA) or the Federal Emergency Management Agency (FEMA) in the flood insurance study (FIS) as amended are incorporated by reference and made part of this chapter. The director shall keep the flood insurance study on file.] The flood insurance rate map and flood insurance study effective September 25, 2009, and any subsequent revisions and amendments, are hereby adopted and declared to be part of this section, and shall be on file at the County of Maui, department of planning, 250 South High Street, Wailuku, Maui, Hawaii 96793.

C. Abrogation and Greater Restrictions. This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another title or chapter of the Maui County Code, easement, covenant, or deed restriction conflict, the more stringent restrictions shall prevail.

D. Interpretation. All provisions of this chapter shall be considered as minimum requirements and liberally construed in favor of the [county] County. This chapter neither limits nor repeals any powers granted under state statute."

SECTION 3. Section 19.62.050, Maui County Code, is amended to read as follows:

"19.62.050 Administration. A. Special Flood Hazard Area Development Permit. A special flood hazard area development permit shall be obtained from the director before construction of any development begins within any special flood hazard area, flood-related erosion hazard area, or mudslide (i.e., mudflow) area. Application for a permit shall be made on forms furnished by the director that may require, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevation of the area in question, existing or proposed structures, fill, stockpiles, and drainage facilities. The application shall require the following:

1. Proposed elevation, in relation to mean sea level, of the lowest floor (including basement) of all structures. In zone AO, elevation of highest adjacent grade and 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 required under section 19.62.060; and
4. Description of any anticipated watercourse alteration or relocation as a result of the proposed development.

B. Permit Review. The director shall review all permit applications to determine [that] the following:

1. That the requirements of this chapter have been satisfied[, that];

2. That the site is reasonably safe from flooding[, and that,];

3. That where base flood elevations have been determined but a floodway has not been designated, the cumulative effect of the proposed development (as certified by a civil engineer) when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood [by more than one foot] at any point[.];

4. That all necessary permits have been received from those governmental agencies from which approval is required by federal or state law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334; and

5. That for proposed building sites in flood-prone areas where special flood hazard areas have not been defined, water surface elevations have not been provided, and there is insufficient data to identify the floodway or coastal high hazard areas, but the director has determined that there are verifiable physical indications that such hazards are present, all new construction and substantial improvements (including the placement of manufactured homes) shall be:

a. Designed and adequately anchored to prevent flotation, collapse, or lateral movement;

b. Constructed of flood-resistant materials;

c. Constructed by methods and practices that minimize flood damage;

d. 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;

e. Constructed such that new and replacement utilities shall comply with the requirements of section 19.62.060.B.

C. Use of Other Base Flood Data. Where base flood elevation has not been determined, the director shall obtain, review, and reasonably use any base flood elevation and floodway data available from a federal or state agency, or other source, in administering section 19.62.060.

D. Flood Map Revisions. Whenever base flood elevations may increase or decrease due to a proposed development, the owner of the property shall obtain a conditional letter of map revision (CLOMR) from [the Federal Emergency Management Agency (FEMA)] FEMA before the approval or issuance of any development permit [or any increase or decrease of base flood elevations]. A letter of map revision (LOMR) shall be obtained from FEMA whenever a development has increased or decreased the base flood elevation within any special flood hazard area. An application for a LOMR shall be submitted to FEMA no later than six months after the completion of a development.

E. Watercourse Alteration. Whenever a watercourse is to be altered or relocated, the director shall:

1. [Require] For riverine situations, require the applicant to notify the State of Hawaii department of land and natural resources, [division of] commission on water resource management, before such alteration or relocation, and submit evidence of such notification to the Federal Insurance Administration, [Federal Emergency Management Agency (FEMA);] FEMA;

2. Require that the flood-carrying capacity of the altered or relocated portion of the watercourse be maintained.

F. Certifications. The director shall obtain and maintain for public inspection the certifications required under section 19.62.060.

G. Boundary Determinations. The director shall determine, where needed, the exact location of boundaries of special flood hazard areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions).

1. Where interpretation is needed as to whether or not a development lies within a special flood hazard area or as to the base flood elevation affecting a development, a request for such interpretation shall be submitted to the director. The request shall include a description of the development site, a location plan showing the property lines and dimensions of the development, and a copy of the tax map showing the parcel upon which the development is proposed to be constructed. The director shall, where interpretation is possible from the information shown on the [FHBM or] FIRM, issue written determination of the specific area boundaries and the base flood elevation.

2. Where, in the opinion of the director, interpretation is not possible from the information shown on the [FHBM or] FIRM, the director shall require the applicant to provide more detailed information concerning the request for determination of flood boundaries and the base flood elevation. The additional information shall be submitted to the director and shall contain a recommendation certified by a civil engineer as to the flood area and base flood elevation that should apply to the proposed development and shall include three sets of documents certified by the engineer containing adequate data consistent with this chapter, such as flood and hydrology studies, project site and location plans, property maps showing lines and dimensions, tax maps, and topographic data including contours or spot heights based upon mean sea level. After review the director shall, in writing[;]:

a. Inform the applicant that the detailed request contains inadequate data to make a determination as to flood area boundaries and base flood elevations, and

specify the specific lack of data needed to resolve the question and decline to make a determination; or

b. Based upon the supporting data submitted with the request for interpretation and other available data, determine the flood area boundaries and the base flood elevations affecting the development; or

c. Instruct the applicant to submit the request for interpretation directly to [the Federal Emergency Management Agency.] FEMA.

3. None of the provisions of this section shall prevent an applicant from requesting an appeal or resubmitting a request for a determination of the flood area boundaries or the base flood elevations directly from the director or [the Federal Emergency Management Agency.] FEMA. Any such written determination from [the Federal Emergency Management Agency] FEMA shall be sufficient in lieu of a determination from the director."

SECTION 4. Section 19.62.060, Maui County Code, is amended to read as follows:

"19.62.060 Standards for development. A. Standards of Construction. In special flood hazard areas the following standards shall be required:

1. Anchoring.

a. New construction and substantial improvements shall be adequately anchored to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

2. Construction Materials and Methods.

a. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

b. New construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

c. New construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, air conditioning, and other service facilities that are designed or located so as to prevent the entry and accumulation of floodwater.

d. New construction and substantial improvements within zones AH or AO shall ~~[include]~~ provide adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures [on slopes].

3. Elevation and Floodproofing.

a. New construction and substantial improvements (except those in zone AO) shall have the lowest floor, including basement, elevated to[, or] at least one foot above[,] the base flood elevation. Upon completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a civil engineer or surveyor. FEMA's "elevation certificate" form, as amended, shall be used for the certification, and a copy provided to the director.

b. New construction and substantial improvements in zone AO shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as one foot above the depth number specified in feet on the FIRM, or at least ~~[two]~~ three feet if no depth number is specified. Upon completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a civil engineer or surveyor. FEMA's "elevation certificate" form, as amended, shall be used for the certification, and a copy provided to the director.

c. Nonresidential construction shall either be elevated to conform with subparagraphs a or b of this paragraph or, together with attendant utility and sanitary facilities:

i. Be floodproofed so that walls below the base flood level are substantially impermeable to the passage of water;

ii. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

iii. Be certified by a structural engineer or architect as satisfying the standards of this subparagraph. FEMA's "floodproofing certificate" form, as amended, shall be used for the certification, and a copy provided to the director.

d. New construction and substantial improvements of fully enclosed areas below the lowest floor that are usable solely for vehicular parking, 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 floodwater. Designs for meeting this requirement must be either certified by an engineer or architect or meet or exceed one of the following minimum criteria:

i. Provide 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, with the bottom of all openings 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 floodwater.); or

ii. Be certified by an engineer as complying with a county floodproofing standard approved by the Federal Insurance Administration[, Federal Emergency Management Agency (FEMA).] or FEMA.

e. New construction and substantial improvements shall be reasonably safe from

flooding in accordance with FEMA technical bulletin 10-01 and amendments thereto. Designs for meeting this requirement shall be certified by an engineer.

4. Building Height Allowance. Building heights in the agricultural, rural, and residential zoning districts may be increased by a height equal to the base flood, up to a maximum of five feet above the maximum building height permitted by the zoning regulations for the zoning district in which the building is located.

5. Certification shall be provided by an architect or engineer that all new construction and substantial improvements meet or exceed applicable standards for flood hazard reduction, including, but not limited to, those regarding anchoring, construction materials and methods, elevation and floodproofing, utilities, subdivisions, and manufactured homes.

6. Within zones A, AH, and AE, until a floodway is designated, no new construction, substantial improvement, or other development (including fill) shall be permitted unless it is demonstrated that the cumulative effect of the proposed construction, substantial improvement, or development, when combined with all other existing and anticipated construction, substantial improvement, and development, will not increase the water surface elevation of the base flood at any point.

B. Utilities.

1. New and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into such systems and discharge from such systems into floodwaters.

2. On-site waste disposal systems shall be located to avoid impairment to, or contamination from, such systems during flooding.

C. Subdivisions[.Subdivisions proposals shall:] and other developments.

1. [Identify any special flood hazard areas affected and the base flood elevation of such areas;] All subdivisions and other developments where special flood hazard areas have not been defined, water surface elevations have not been provided, and there is insufficient

data to identify the floodway or coastal high hazard areas, but there are verifiable physical indications that such hazards are present as determined by the director, shall:

a. Be consistent with the need to minimize flood damage;

b. Have utilities, such as sewer, gas, electric, and water systems located and constructed to minimize flood damage;

c. Provide adequate drainage to reduce exposure to flood hazards; and

d. Provide documentation and a certification that the requirements of subsection 19.62.050 have been satisfied.

2. [Provide the elevation of proposed structures and pads. If the site is filled above the base flood elevation, the final first floor and pad elevations shall be certified by an engineer or surveyor and provided to the director;] All subdivision and other development applications shall identify special flood hazard areas and base flood elevations on the proposed site. If such information is not provided by the FIRM and if the proposed development or subdivision consists of more than fifty lots or five acres, the developer or subdivider shall include base flood elevation data within the proposal. If the proposed development or subdivision consists of fifty or fewer lots or five or fewer acres, the developer or subdivider shall include the one hundred year floodplain limits by approximate methods within the proposal.

3. [Be consistent with the need to minimize flood damage;] Approved final subdivision plats for subdivisions within special flood hazard areas or flood-prone areas shall include the base flood elevations within the lots as provided in subsection C.2.

[4. Have utilities, such as sewer, gas, electric, and water systems, located and constructed to minimize flood damage;

5. Provide adequate drainage to reduce exposure to flood hazards.]

D. Manufactured Homes. Manufactured homes that are placed or substantially improved within special flood hazard areas that are not coastal high hazard

areas shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to, or above, the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement. Manufactured homes that are [place] placed or substantially improved within coastal high hazard areas shall meet the requirements of subsection G of this section.

E. Recreational Vehicles. Recreational vehicles placed on sites within zones [A1-30,] A, AH, [and] AE, V, or VE [within coastal high hazard areas,] shall either:

1. Be on site for fewer than thirty consecutive days;

2. Be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on wheels or a jacking system, is attached to the site only by a quick disconnect type utilities and security device, and has no permanently attached additions); or

3. Meet the permit requirements of section 19.62.050 and the requirements for manufactured homes under subsection D of this section.

F. Floodways. No encroachments, including fill, new construction, substantial improvement, or other new development[,] shall be allowed within floodways unless certification by a civil engineer is provided to the director demonstrating that the encroachments will not result in any increases in base flood levels.

G. Coastal High Hazard Areas. Within coastal high hazard areas:

1. New construction and substantial improvements shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the lowest horizontal portion of the structural members of the lowest floor (excluding the pilings or columns) is elevated to [or] at least one foot above the base flood level. The pile or column foundation and the structure attached thereto shall be anchored to resist flotation, collapse, and lateral movement due to the simultaneous action of wind and water loads on all building components. Water loading values used for purposes of meeting this requirement shall be

those associated with the base flood. Wind loading values used shall be those required by the Uniform Building Code, as amended.

2. New construction and substantial improvements shall be located on the landward side of the reach of mean high tide.

3. New construction and substantial improvements shall have the space below the lowest floor free of obstructions, or constructed with breakaway walls[.], open wood latticework, 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. Such space shall not be used for human habitation, but shall be useable solely for vehicular parking, building access, limited storage, or storage. Machinery and equipment that service the building, such as furnaces, air conditioners, heat pumps, water heaters, washers, dryers, elevator lift equipment, electrical junction and circuit boxes, and food freezers are prohibited in such spaces. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Breakaway wall collapse shall be designed to result from a water load less than that which would occur during a base flood and the elevated portion of the building shall be designed so as not to incur any structural damage from wind and water loads acting simultaneously during a base flood.

4. Fill shall not be used for structural support of buildings.

5. Manmade alteration of sand dunes shall not increase potential flood damage.

6. The director shall be provided and shall maintain the following records:

a. Certification by an engineer or architect that the proposed structure complies with paragraphs 1 through 5 of this subsection;

b. Certification by a structural engineer or surveyor of the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings or columns) of all

new and substantially improved structures, and information regarding whether such structures contain basements. FEMA's "elevation certificate" form, as amended, shall be used for the certification.

7. Areas of a structure below the base flood elevation may be used for parking vehicles, limited storage or storage, or access to the building, but not for human habitation. For such areas that are five feet or more in height as measured from any point within such areas, the property owner shall enter into a "Non-conversion Agreement for Construction Within Flood Hazard Areas" with the County. The agreement shall be in a form acceptable to the director and shall be recorded with the bureau of conveyances or land court as a deed restriction.

The director or the director's authorized representative may, upon prior notice of at least seventy-two hours, inspect any area of a structure below the base flood elevation to ensure compliance.

H. General Floodplain. For areas within the general floodplain:

1. The director may obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, including information requested of a permit applicant, to determine base flood elevations and the locations of floodways within the general floodplain.

2. Development or subdivision proposals shall conform to the requirements of section 19.62.060.C.

3. An applicant for a special flood hazard area development permit within a general floodplain area shall submit the following information to the director:

a. Project location and site plan showing dimensions;

b. Relationship to floodway and floodway fringes as determined by flood elevation study;

c. Contour map of appropriate scale and contours showing the topography of existing ground based on elevation reference marks on flood maps;

d. Existing and proposed base flood elevations; and

e. Existing and proposed floodproofing and flood control measures. The director may waive informational requirements if the director has sufficient information to make an evaluation and determination regarding flood elevation, or may request further information, including a detailed flood elevation study and a drainage report to evaluate flood risks and determine the applicability of flood construction and development standards.

4. New construction and substantial improvements within the general floodplain shall satisfy the requirements set forth in zones AE, AO, AH, or VE, as determined to be applicable by the director, based on base flood information and floodway data obtained through subsections H.1 and H.3.

5. New construction and substantial improvements within the general floodplain shall conform to sections 19.62.050 and 19.62.060.

6. All manufactured homes shall be elevated and anchored to resist flotation, collapse, or lateral movement."

SECTION 5. Section 19.62.100, Maui County Code, is amended to read as follows:

"19.62.100 Developments adjacent to drainage facilities. A. Applications involving developments encompassing or adjoining any stream, river, or drainage facility outside of the special flood hazard areas identified on the FIRM shall be subject to review by the director. Upon [determination] request by the director, [that the development may adversely affect a special flood hazard area, the application shall include information, signed and stamped by an engineer or architect in accordance with sections 19.62.050 and 19.62.060,] further information concerning base flood elevation, floodways, surface water runoff, existing and proposed drainage patterns, and other information, including, but not limited to, a detailed flood elevation study, drainage report, and findings and opinions by a licensed professional civil

engineer, shall be provided to evaluate the potential flooding of the area.

B. The director shall not issue any permit involving modification, construction, lining, or alteration of any drainage facility, river, or stream unless such modification, construction, lining, or alteration does not reduce the capacity of the drainage facility, river, or stream, or adversely affect any downstream or adjacent property.

C. New construction and substantial improvements encompassing or adjoining any stream, river, or drainage facility outside of the special flood hazard areas shall conform to sections 19.62.050 and 19.62.060."

SECTION 6. Section 19.62.170, Maui County Code, is amended to read as follows:

"19.62.170 Other laws and regulations. All construction and improvements subject to this chapter shall comply with other applicable laws and regulations[.], including, but not limited to, the building, housing, plumbing and electrical codes, and grading ordinances."

SECTION 7. Chapter 19.62, Maui County Code, is amended by adding a new section to be appropriately designated and to read as follows:

"19.62.190 Enforcement. Any approval or permit issued pursuant to this chapter shall comply with all applicable requirements of title 19 of this code. If the director determines that any persons are in violation of this chapter, the director may enforce this chapter pursuant to chapter 19.530 of this code."

SECTION 8. Material to be repealed is bracketed. New material is underscored. In printing this bill, the County Clerk need not include the brackets, the bracketed material, or the underscoring.

SECTION 9. This ordinance shall take effect upon its approval.

APPROVED AS TO FORM
AND LEGALITY:

MICHAEL J. HOPPER
Deputy Corporation Counsel
County of Maui

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