CHAPTER 5B

RESIDENTIAL BUILDING CODE*

* **Editor's Note:** Pursuant to section 107-28, Hawai'i Revised Statutes ("HRS"), each County shall amend and adopt the Hawai'i State building codes and standards listed in HRS, section 107-25 within two years after adoption by the State Building Code council. If a County does not amend, adopt, and update a State code within this time frame, the respective State code shall become applicable as an interim County code.

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Article 4. Building Work Within Special Flood Hazard Areas.

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Article 1. General Provisions.

Section 5B-1-1. Title.

This chapter shall be known as the "residential building code."
(2021, ord 21-61, sec 1.)

Section 5B-1-2. Purpose.

The purpose of this chapter is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all residential buildings and structures within the County and certain equipment specifically regulated herein.
(2021, ord 21-61, sec 1.)

Section 5B-1-3. Scope; exceptions.

This chapter shall apply to the design, construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above *grade plane* in height with a separate means of egress and their *accessory structures* not more than three stories above *grade plane* in height.
Exception:

The following shall be permitted to be constructed in accordance with this code where provided with a residential fire sprinkler system complying with, chapter 26, the Hawai'i County fire code:

1. Live/work units located in *townhouses* and complying with the requirements of Section 419, "Live/Work Units" of the International Building Code as adopted by chapter 5A, the building code.
2. Owner-occupied lodging houses with five or fewer guestrooms.
3. A care facility with five or fewer persons receiving custodial care within a dwelling unit.
4. A care facility with five or fewer persons receiving medical care within a dwelling unit.
5. A care facility for five or fewer persons receiving care that are within a single-family dwelling.

(2021, ord 21-61, sec 1.)

Section 5B-1-4. Administrative provisions.

Provisions relating to permitting, enforcement, inspection, and other administrative procedures pertaining to this chapter are contained in chapter 5, the construction administrative code.
(2021, ord 21-61, sec 1.)

Section 5B-1-5. Existing buildings.

(a) Permitted buildings in existence at the time of the adoption of this chapter may have their existing permitted use or occupancy continued if such use or occupancy was legal at the time of the adoption of this chapter, provided such continued use does not constitute a hazard to the general safety and welfare of the occupants and the public.
(b) Alteration, repair, addition, and change of occupancy. Alteration, repair, addition, and change of occupancy to a building or structure in existence at the time of the adoption of this chapter shall comply with the requirements of the existing building code, chapter 5C, Hawaiʻi County Code.

(2021, ord 21-61, sec 1.)

Section 5B-1-6. Definitions.

As used in this chapter, unless it is apparent from the context that a different meaning is intended:

"Accessory structure" means a structure not greater than 3,000 square feet (279 m^2) in floor area, and not over two stories in height, the use of which is customarily accessory to and incidental to that of the dwelling and which is located on the same lot.

"Authority having jurisdiction" means the director of the department of public works, or the director's authorized representative.

"Building" means any structure used or intended for supporting or sheltering any use or occupancy. The term shall include but not be limited to, any structure mounted on wheels such as a trailer, wagon, or vehicle which is parked and stationary for any 24-hour period, and is used for business or living purposes; provided, however, that the term shall not include a push cart or push wagon which is readily movable and which does not exceed 25 square feet in area, nor shall the term include a trailer or vehicle, used exclusively for the purpose of selling any commercial product therefrom, which hold a vehicle license and actually travels on public or private streets.

To the extent context otherwise permits and/or requires, the definitions of "building" as used in chapters: 5A, the building code; 5B, the residential building code; 5C, the existing building code; 5D, the electrical code; 5E, the energy conservation code; and 5F, the plumbing code; are incorporated by reference herein.

"Building work" means the design, construction, alteration, relocation, enlargement, replacement, repair, removal, demolition of any building or structure, or any other activities regulated by this chapter.

"Chapter" means this chapter.

"This code" means the residential building code, contained in chapter 5B, or the construction administrative code, contained in chapter 5, or both, as the context requires.

"Construction code" means collectively: chapter 5, the construction administrative code; chapter 5A, the building code; chapter 5B, the residential building code; chapter 5C, the existing building code; chapter 5D, the electrical code; chapter 5E, the energy conservation code; chapter 5F, the plumbing code; and all administrative rules adopted pursuant to these chapters.

"Dwelling" means any building that contains one or two dwelling units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes.

"Existing building" means a building erected prior to the effective date of this chapter, or one for which a legal permit has been issued.

"Existing structure" means a structure erected prior to the effective date of this chapter, or one for which a legal permit has been issued.

"ICC" means the International Code Council.

"Owner-builder" means owners or lessees of property who build or improve buildings or structures on their property for their own use, or for use by their immediate family. This definition shall not preempt owner-builder by exemption as defined by section 444-2.5, Hawai'i Revised Statutes.

"Permit" means a formal authorization issued by the authority having jurisdiction that authorizes performance of specified work, pursuant to the construction code, including the following chapters and all administrative rules adopted pursuant to the following chapters:

(1) 5, the construction administrative code;
(2) 5A, the building code;
(3) 5B, the residential building code;
(4) 5C, the existing building code;
(5) 5D, the electrical code;
(6) 5E, the energy conservation code; and
(7) 5F, the plumbing code.

"Person" means any individual, firm, partnership, association, or corporation; or its or their successors or assigns, according to the context thereof.
(2021, ord 21-61, sec 1.)

Section 5B-1-7. Compliance required.

(a) No person shall perform or cause to be performed any building work which does not comply with the provisions of this code or any permit issued pursuant to this code.
(b) No person shall perform any work covered by this code in violation of the provisions of chapters 444 or 448E, Hawai'i Revised Statutes.
(c) Any approval or permit issued pursuant to the provisions of this code shall comply with all applicable requirements of this code.
(d) The granting of a permit, variance, or approval of plans or specifications pursuant to this code does not dispense with the necessity to comply with any applicable law to which a permit holder may also be subject.

(2021, ord 21-61, sec 1.)

Section 5B-1-8. Conflict.

(a) If any provisions of this code conflict with or contravene provisions of the Hawaiʻi State Residential Code or the International Residential Code, 2018 Edition, that have been incorporated by reference, the provisions of this code shall prevail as to all matters and questions arising out of the subject matter of such provisions.

(b) In situations where two or more provisions of this code and any applicable law, other than those provided for in subsection (a), cover the same subject matter, the stricter shall be complied with.

(2021, ord 21-61, sec 1.)

Section 5B-1-9. References to model codes.

(a) The codes and standards referenced in this code shall be considered to be part of the requirements of this code to the prescribed extent of each such reference and as further regulated in section 5B-1-8.

(b) Wherever a model code is referenced in this code, the following shall apply:

(1) The International Building Code shall mean the building code, chapter 5A, Hawaiʻi County Code;

(2) The International Residential Code, shall mean the residential building code, chapter 5B, Hawaiʻi County Code;

(3) The International Existing Building Code, shall mean the existing building code, chapter 5C, Hawaiʻi County Code;

(4) The International Electrical Code shall mean the electrical code, chapter 5D, Hawaiʻi County Code;

(5) The International Energy Conservation Code, shall mean the energy conservation code, chapter 5E, Hawaiʻi County Code;

(6) The International Plumbing Code shall mean the plumbing code, chapter 5F, Hawaiʻi County Code;

(7) The International Fuel Gas Code, the provisions of the International Fuel Gas Code shall be deemed to be only guidelines and not mandatory;

(8) The International Mechanical Code, the provisions of the International Mechanical Code shall be deemed to be only guidelines and not mandatory;

(9) The International Property Maintenance Code, the provisions of the International Property Maintenance Code shall be deemed to be only guidelines and not mandatory; and

(10) The International Fire Code shall mean the fire code, chapter 26, Hawaiʻi County Code.

Exception:

Where enforcement of a code provision would violate the conditions of the listing of the equipment of appliance, the condition of the listing shall govern.

(2021, ord 21-61, sec 1.)

Article 2. Installation Requirements.

Section 5B-2-1. International residential code adopted.

(a) The "International Residential Code for One- and Two-family Dwellings, 2018 Edition," as published in 2017 by the International Code Council, Incorporated, 500 New Jersey Avenue, 6th Floor, Washington, DC 20001, is adopted by reference and made a part of this code, subject to any amendments set forth in this chapter. Hereinafter, the "International Residential Code for One- and Two-family Dwellings, 2018 Edition," shall be referred to as the "International Residential Code." The appendices of the International Residential Code are not adopted unless otherwise provided in this chapter.

(1) The following appendices of the International Residential Code are adopted by reference and made a part of this code, subject to any amendments set forth in this chapter:

(A) Appendix H, Patio Covers;

(B) Appendix M, Home Day Care – R-3 Occupancy; and

(C) Appendix Q, Tiny Houses.

(2) The following appendix is added to the International Residential Code and made a part of this code, subject to any amendments set forth in this chapter: Appendix U, Factory-built Housing.

(b) The scope, technical specifications, and exemptions set forth in the International Residential Code are hereby adopted as the standard for building work covered by this code, provided there are no specific provisions in any other section of this code covering the particular matter.

(c) A copy of the International Residential Code shall be available for public inspection at the Hilo and Kailua-Kona offices of the department of public works and at the office of the County clerk.

(d) The International Residential Code adopted and incorporated by reference into this code, shall be subject to the amendments hereinafter set forth.

(1) Chapter 1, "Scope and Administration," of the International Residential Code is deleted in its entirety.

(2) Chapter 1, Part 2 – "Administration and Enforcement" of the International Residential Code is deleted in its entirety.

(3) Section R202, "Definitions," of the International Residential Code is amended by adding the following definitions:

"AUTHORITY HAVING JURISDICTION means the director of the department of public works, or the director's authorized representative."

"BUILDING, ENCLOSED is a building that does not comply with the requirements for open or partially enclosed building."

"BUILDING, OPEN is a building having each wall at least 80 percent open. Ao >= Ag where:

1. Ao = total area of openings in a wall that receives positive external pressure, in ft^2 (m^2); and
2. Ag = the gross area of that wall in which Ao is identified, in ft^2 (m^2)."

"BUILDING, PARTIALLY ENCLOSED is a building that complies with both of the following conditions:

1. The total area of openings in a wall that receives positive external pressure exceeds that sum of the areas of openings in the balance of the building envelope (walls and roof) by more than 10 percent; and
2. The total area of openings in a wall that receives positive external pressure exceeds 4 ft^2 (0.37 m^2) or 1 percent of the area of that wall, whichever is smaller, and the percentage of openings in the balance of the building envelope does not exceed 20 percent.

These conditions are expressed by the following equations:

1. Ao > 1.1 Aoi
2. Ao > 4 ft^2 (0.37 m^2) or > 0.01 Ag, whichever is smaller, and Aoi/Agi ≤ 0.20

Where:
Ao, Aq are defined for open building.
Aoi = the sum of the areas of openings in the building envelope (walls and roof) not including Ao, in ft^2 (m^2).
Agi = the sum of the gross surface areas of the building envelope (walls and roof) not including Ag, in ft^2 (m^2)."

"CARPORT is a private garage which is at least 100 percent open on one side and with 50 percent net openings on another side or which is provided with an equivalent of such openings on two or more sides.

A private garage which is 100 percent open on one side and 25 percent open on another side with the latter opening so located to provide adequate cross ventilation may be considered a carport when approved by the building official. Carports not open on two or more sides shall be considered to be a garage."

"FAMILY shall be as defined in the Zoning Code except that a nursing, care home, or other similar facility with not more than five patients may be considered a family under this code."

"FIRE CODE. The State Fire Code as adopted by the State Fire Council."

"PRIVATE GARAGE or GARAGE. A building or portion of a building in which motor vehicles used by the tenants of the building or buildings on the premises are stored or kept, without provisions for repairing or servicing such vehicles for profit."

"SLEEPING UNIT. A single unit that provides rooms or spaces for one or more persons, includes permanent provisions for sleeping and can include provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units."

(4) Section R202, "Definitions," of the International Residential Code is amended by amending the following definitions to read as follows:

"BUILDING. Any structure used or intended for supporting or sheltering any use or occupancy. The term shall include but not be limited to any structure mounted on wheels such as a trailer, wagon or vehicle which is parked and stationary for any 24-hour period, and is used for business or living purposes; provided, however, that the term shall not include a push cart or push wagon which is readily movable and which does not exceed 25 square feet in area, nor shall the term include a trailer or vehicle, used exclusively for the purpose of selling any commercial product therefrom, which hold a vehicle license and actually travels on public or private streets.

To the extent context otherwise permits and/or requires, the definitions of "building" as used in the following chapters of the Hawai'i County Code: 5A, the building code; 5B, the residential building code; 5C, the existing building code; 5D, the electrical code; 5E, the energy conservation code; and 5F, the plumbing code; are incorporated by reference herein."

"BUILDING OFFICIAL. The director of the County department of public works or the director's authorized representative."

(5) Subsection R301.1.1, "Alternative provisions," of the International Residential Code is amended to read as follows:

"**R301.1.1 Alternative provisions.** As an alternative to the requirements in Section R301.1, the following standards are permitted subject to the limitations of this code and the limitations therein. Where engineered design is used in lieu of or in conjunction with these standards, the design shall comply with the Building Code, Chapter 5A, Hawai'i County Code.

1. AWC *Wood Frame Construction Manual* (WFCM) 2018.

2. AISI *Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings* (AISI S230 - 2015).
3. ICC *Standard for Residential Construction in High-Wind Regions* (ICC 600-14)."

(6) Subsection R301.1.3, "Engineered design," of the International Residential Code is amended to read as follows:

"**R301.1.3 Engineered design.** When a building of otherwise conventional construction contains structural elements exceeding the limits of Section R301 or otherwise not conforming to this code, these elements shall be designed in accordance with accepted engineering practice using the Alternative Provisions listed in R301.1.1. The extent of such design need only demonstrate compliance of nonconventional elements with other applicable provisions and shall be compatible with the performance of the conventional framed system. Engineered design in accordance with the Building Code, Chapter 5A, Hawai'i County Code, is permitted for all buildings and structures, and parts thereof, included in the scope of this code."

(7) Section R301, "Design Criteria," of the International Residential Code is amended by adding subsection 301.1.4, "Complete load path and uplift ties," to read as follows:

"**R301.1.4 Complete load path and uplift ties.** Blocking, bridging, straps, approved framing anchors, or mechanical fasteners shall be designed and installed to provide continuous ties from the roof to the foundation system.

Sheet metal clamps, ties, or clips, must be formed of galvanized steel or other approved corrosion-resistant material not less than 0.040 inch (1.01 mm) nominal thickness. Uplift resistance shall be in accordance with Table R802.11."

(8) Table R301.2(1), "Climatic and Geographic Design Criteria," of the International Residential Code is deleted in its entirety and replaced with the following:

"**TABLE R301.2(1)**
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

WIND SPEED (mph)	SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			FLOOD HAZARDS
		Weathering	Termite	Decay	
Per Figure R301.2(8)	D2 or E	Negligible	Very Heavy	Moderate to severe	FEMA or Chapter 27 HCC"

(9) Subsection 301.2.1, "Wind design criteria," of the International Residential Code is amended to read as follows:

"**R301.2.1 Wind design criteria.** Buildings and portions thereof shall be constructed in accordance with the wind provisions of this code provided that the ultimate design wind speed, V_{ULT}, as determined from Figure R301.2(5)A, is less than 130 mph, unless the building is a single-story with a slab-on-grade foundation and in wind exposure category B, then wind provisions of this code shall be applicable when V_{ULT} is less than 140 mph. The structural provisions of this code for wind loads are not permitted where wind design is required when V_{ULT}, determined from Figure R301.2(5)(A), is equal to or greater than 130 mph, unless the building is a single-story with a slab-on-grade foundation and in wind exposure category B, then structural provisions of this code for wind loads are not permitted where wind design is required when V_{ULT} is equal to or greater than 140 mph. Where different construction methods and structural materials are used for various portions of a building, the applicable requirements of this section for each portion shall apply. Where not otherwise specified, the wind loads listed in Table R301.2(2) adjusted for height and exposure using Table R301.2(3) shall be used to determine design load performance requirements for wall coverings, curtain walls, roof coverings, exterior windows, skylights, garage doors and exterior doors. Asphalt shingles shall be designed for wind speeds in accordance with Section R905.2.4. A continuous load path shall be provided to transmit the applicable uplift forces in Section R802.11.1 from the roof assembly to the foundation. The ultimate design wind speed, V_{ULT}, in the State Residential Code is equal to the basic design wind speed, V, in the Building Code, Chapter 5A, Hawai'i County Code.

(10) Subsection R301.2.1.1, "Wind limitations and wind design required," of the International Residential Code is amended to read as follows:

"**R301.2.1.1 Wind limitations and wind design required.** The wind provisions of this code shall not apply to the design of buildings where wind design is required in accordance with Subsection R301.2.1.

Exceptions:

1. For concrete construction, the wind provisions of this code shall apply in accordance with the limitations of Sections R404 and R608.
2. For structural insulated panels, the wind provisions of this code shall apply in accordance with the limitations of Section R610.
3. For cold-formed steel light-frame construction, the wind provisions of this code shall apply in accordance with the limitations of Sections R505, R603 and R804.

In regions where wind design is required in accordance with Subsection R301.2.1, the design of buildings for wind loads shall be in accordance with one or more of the following methods:

1. AWC *Wood Frame Construction Manual* (WFCM) 2018.
2. ICC *Standard for Residential Construction in High-Wind Regions* (ICC 600-14).
3. AISI *Standard for Cold-Formed Steel Framing—Prescriptive Method for One- and Two-Family Dwellings* (AISI S230-2015).
4. The Building Code, Chapter 5A, Hawaiʻi County Code.

The elements of design not addressed by the methods in Items 1 through 4 shall be in accordance with the provisions of this code.

Where wind design is required and design is in accordance with the methods in Items 1 through 3, the building must be provided with opening protection for windborne debris. Options for opening protection or alternatives to opening protection shall be in accordance with the Building Code, Chapter 5A, Hawaiʻi County Code."

(11) Subsection R301.2.1.2, "Protection of openings" of the International Residential Code is amended to read as follows:

"**R301.2.1.2 Protection of openings.** Exterior glazing in buildings located in windborne debris regions shall be protected from windborne debris. Glazed opening protection for windborne debris shall meet the requirements of the Large Missile Test of ASTM E1996 and ASTM E1886 as modified in Section 301.2.1.2.1.

Exceptions:

1. Wood structural panels with a minimum thickness of 7/16 inch (11 mm) and a maximum panel span of 8 feet (2438 mm) are permitted for opening protection in one- and two-story buildings classified as Group R-3 or R-4 occupancy. Panels shall be precut so that they are attached to the framing surrounding the opening containing the product with the glazed opening. Panels shall be predrilled as required for the anchorage method and shall be secured with the attachment hardware provided and anchors permanently installed on the building. Attachment in accordance with Table R301.2.1.2 with corrosion-resistant attachment hardware provided and anchors permanently installed on the building is permitted for buildings with a *mean roof height* of 45 feet (13 728 mm) or less, where the ultimate design wind speed, $V_{ult'}$ is 180 mph (290 kph) or less.
2. Glazing in accessory structures to the single family dwellings including but not limited to greenhouses and minor storage sheds.
3. Partially enclosed and open occupancy R-3 buildings shall be permitted to be designed without unprotected openings subject to the following requirements.
   3.1. For each direction of wind, determination of enclosure classification shall be based on the assumption that all unprotected glazing on windward walls are openings while glazing on the remaining walls and roof are intact and are not assumed to be openings.
   3.2. Partially enclosed and open occupancy R-3 buildings without wind-borne debris protection shall also include a residential safe room in accordance with Section 429, Hawai'i residential safe room, of the Building Code, Chapter 5A, Hawai'i County Code, or alternatively provide an equivalently sized room structurally protected by construction complying with Section 429.5, of the Building Code, Chapter 5A, Hawai'i County Code."

(12) Table R301.2.1.2, "Windborne debris protection fastening schedule for wood structural panels," of the International Residential Code is deleted in its entirety and replaced with the following:

"**TABLE R301.2.1.2**
WINDBOURNE DEBRIS PROTECTION FASTENING SCHEDULE FOR WOOD STRUCTURAL PANELS [a,b,c,d]

Fastener Type	**Fastener Spacing**		
	Panel span ≤ 4 feet	4 feet < Panel span ≤ 6 feet	6 feet < Panel Span ≤ 8 feet
No. 8 Wood screw based anchor with 2-inch embedment length	16"	10"	8"
No. 10 Wood screw based anchor with 2-inch embedment length	16"	12"	9"
1/4-inch lag screw based anchor with 2-inch embedment length	16"	16"	16"

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound = 4.448N = 0.454 kg, 1 mile per hour = 0.447 m/s = 1.609 km/h.

a. This table is based on a 175 mph ultimate design wind speed and a mean roof height of 45 feet.
b. Fasteners shall be installed at opposing ends of the wood structural panel. Fasteners shall be located a minimum of 1 inch from the edge of the panel.
c. Anchors shall penetrate through the exterior wall covering with an embedment length of 2 inches minimum into the building frame. Fasteners shall be located a minimum of 2-1/2 inches from the edge of concrete block or concrete.
d. Where panels are attached to masonry or masonry/stucco, they shall be attached utilizing vibration-resistant anchors having a minimum withdrawal capacity of 1,500 pounds."

(13) Figure R301.2(5)(a) "Ultimate Design Wind Speeds" of the International Residential Code is deleted in its entirety and replaced with Figure R301.2(5)(a) County of Hawai'i Ultimate Wind Speed, V_{ULT}, for Components and Cladding, to read as follows:

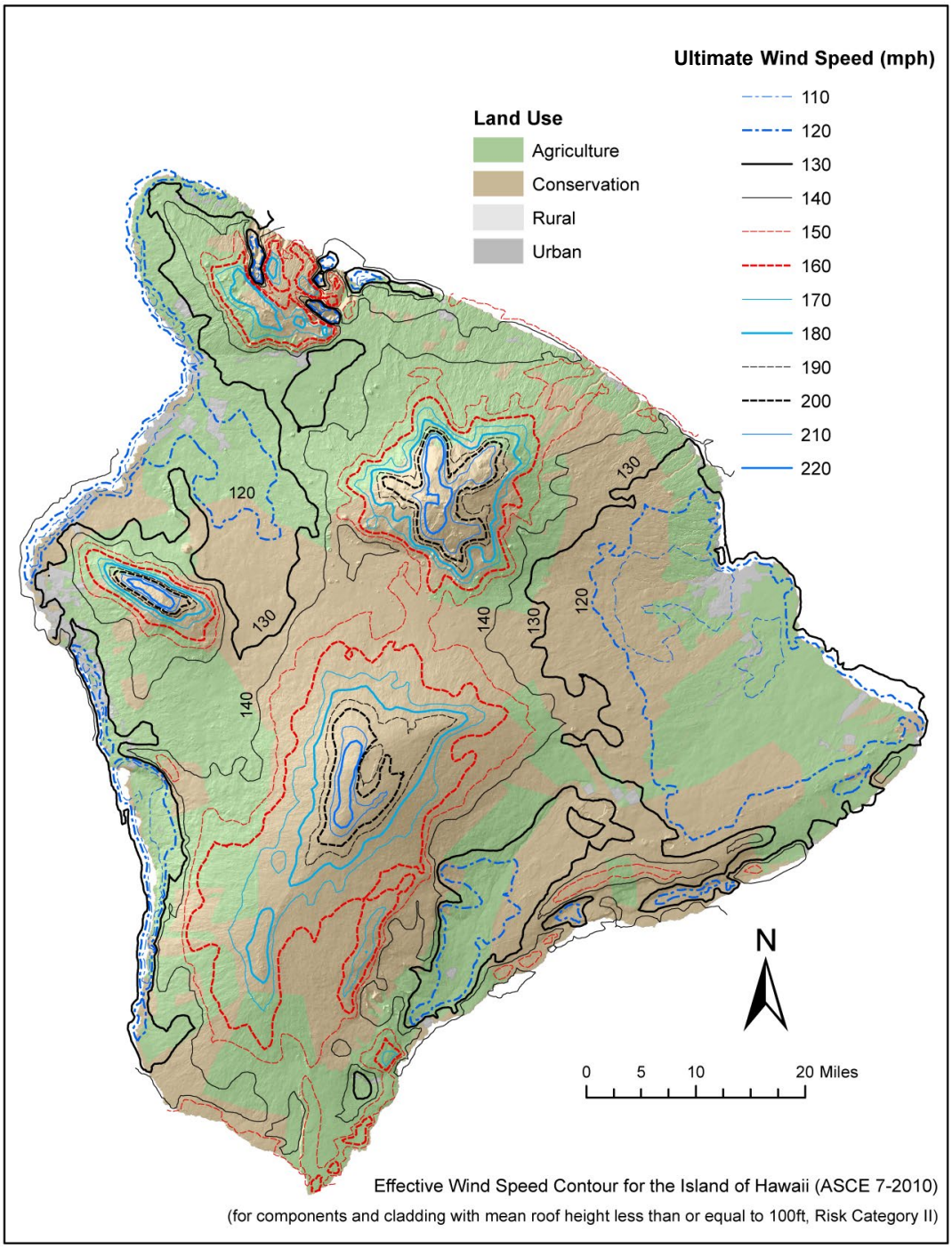


Figure R301.2(5)(a)
County of Hawai'i
Ultimate Wind Speed, V_{ULT}, for Components and Cladding

(14) Figure R301.2(5)(b) "Regions Where Wind Design is Required" of the International Residential Code is deleted in its entirety and replaced with Figure R301.2(5)(b) "County of Hawaiʻi Ultimate Wind Debris Zone," to read as follows:

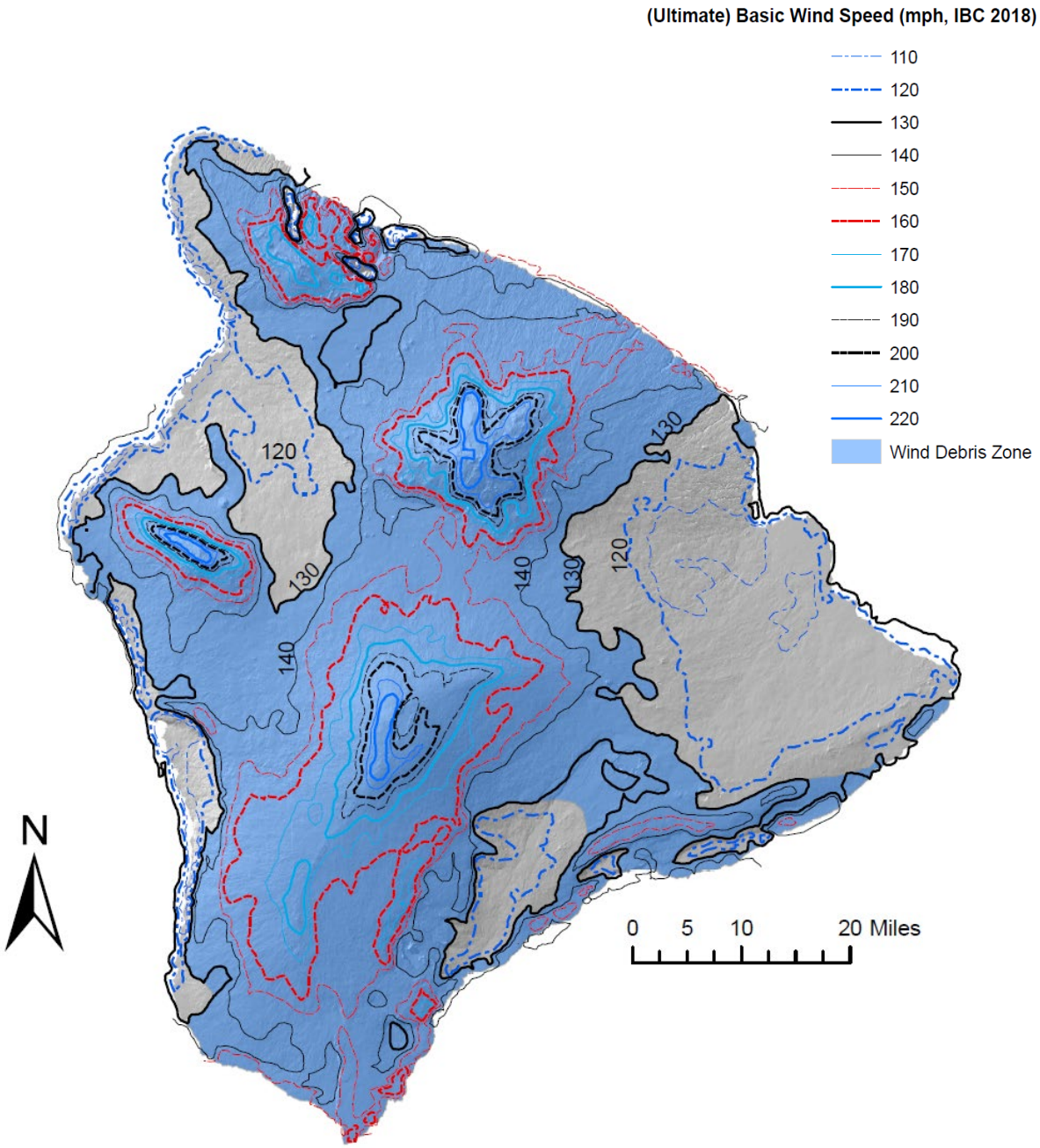
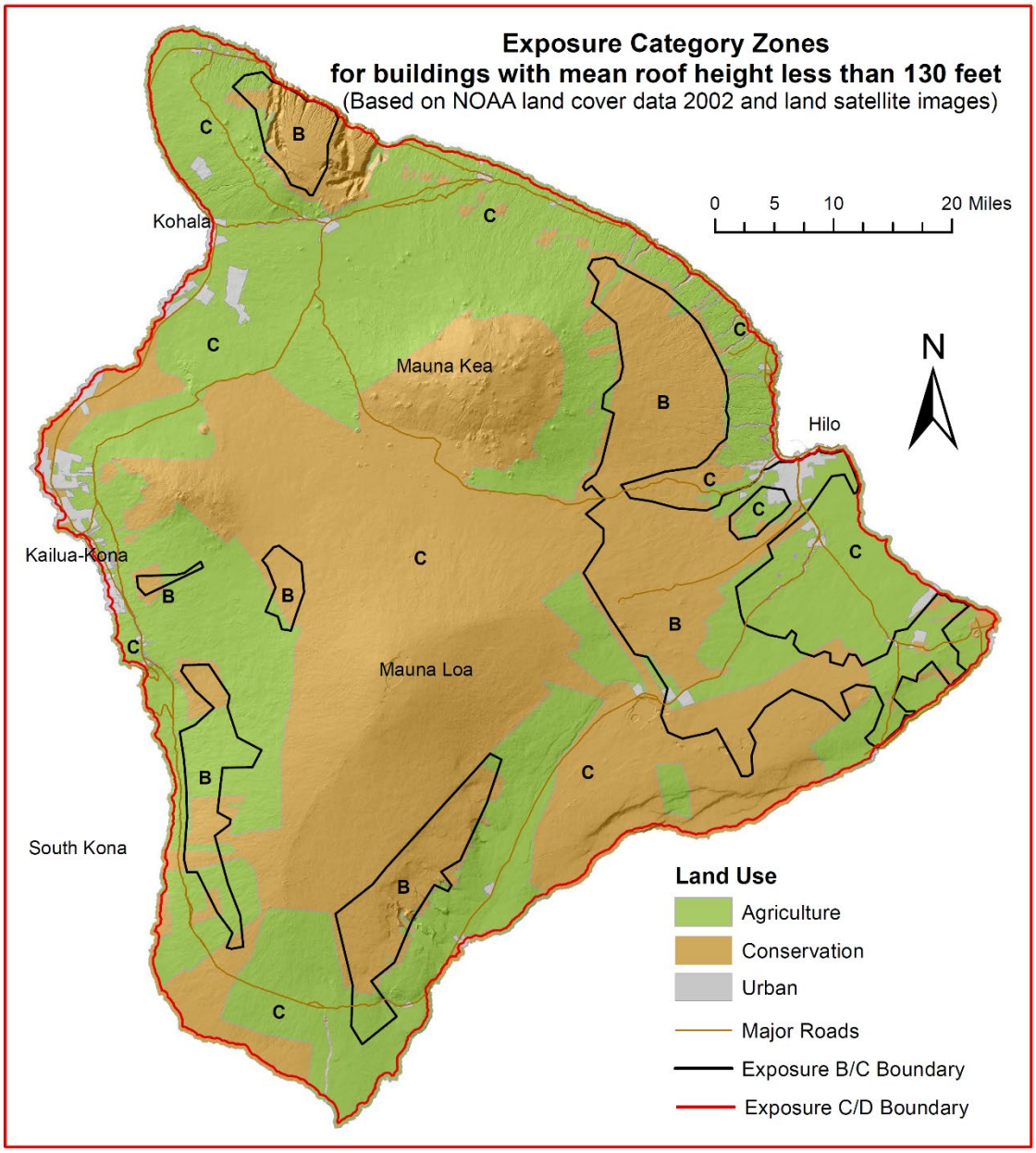


Figure R301.2(5)(b)
County of Hawaiʻi Ultimate Wind Debris Zone

(15) Subsection R301.2.1.4, "Exposure category," of the International Residential Code is deleted in its entirety and replaced with the following:

"**R301.2.1.4 Exposure Category.** The exposure category shall be determined from Figure R301.2.1.4(a) or using the provisions of ASCE 7-10."

(16) Section R301, "Design Criteria," of the International Residential Code is amended by adding Figure R301.2.1.4(a), "Exposure Category Zones for Hawai'i County," to read as follows:



Notes:
1. Intermediate exposures, between categories B and C and between C and D, are permitted when substantiated per ASCE 7 recognized methodology.
2. Sites located within the C (coastal) zone shall be permitted to be evaluated for exposure category B for the wind directions where an adjacent B zone exists in the applicable upwind sector.
3. Sites located within 600 feet from the coastline shall be exposure category D for onshore wind directions.
4. For buildings whose height is equal to or greater than 130 ft, exposure category shall be determined per Section 1609.4.1.
5. For buildings whose mean roof height is less than or equal to 30 ft, exposure category shall be permitted to be evaluated per Section 1609.4.

Figure R301.2.1.4(a)
Exposure Category Zones for Hawaiʻi County

(17) Subsection R301.2.1.5, "Topographic wind effects," of the International Residential Code is deleted in its entirety and replaced with the following:

"**R301.2.1.5 Topographic wind effects.** Topographic wind speed effects shall be considered in the design of the building. Buildings designed using the ultimate wind speed as determined from Figures R301.2(5)(a) and wind exposure categories determined in accordance with section R301.2.1.4 shall be deemed to comply with this section."

(18) Subsection R301.2.1.5.1, "Simplified topographic wind speed-up method," of the International Residential Code is deleted in its entirety.

(19) Section R301, "Design Criteria," of the International Residential Code is amended by adding Table R301.2(4), "Determination of Seismic Design Category by Location-Site Class D," to read as follows:

Table R301.2(4)
Determination of Seismic Design Category by Location-Site Class D

Location	Seismic Design Category
Hawai'i : North and South Kohala, Hamakua, & North Hilo Districts	D_2
All other Hawai'i County Districts	E

(20) Subsection R301.2.2.1, "Determination of seismic design category," of the International Residential Code is amended to read as follows:

"**R301.2.2.1 Determination of seismic design category.** Buildings shall be assigned a seismic design category in accordance with Table R301.2(4) or Figure R301.2(2).

(21) Subsection R301.2.2.1.1, "Alternate determination of seismic design category," of the International Residential Code is deleted in its entirety.

(22) Subsection R301.2.2.6, "Irregular buildings," of the International Residential Code is amended to read as follows:

"**R301.2.2.6 Irregular buildings.** "The seismic provisions of this code shall not be used for structures, or portions thereof, located in Seismic Design Categories D_0, D_1 and D_2 and considered to be irregular in accordance with this section. A building or portion of a building shall be considered to be irregular where one or more of the

conditions defined in Items 1 through 7 occur. Irregular structures, or irregular portions of structures, shall be designed in accordance with the Building Code, Chapter 5A, Hawaiʻi County Code, to the extent the irregular features affect the performance of the remaining structural system. Where the forces associated with the irregularity are resisted by a structural system designed in accordance with the Building Code, Chapter 5A, Hawaiʻi County Code, the remainder of the building shall be permitted to be designed using the provisions of this code.

1. **Shear wall or braced wall offsets out of plane.** Conditions where exterior shear wall lines or *braced wall panels* are not in one plane vertically from the foundation to the uppermost story in which they are required see Figure R301.2.2.6(1).

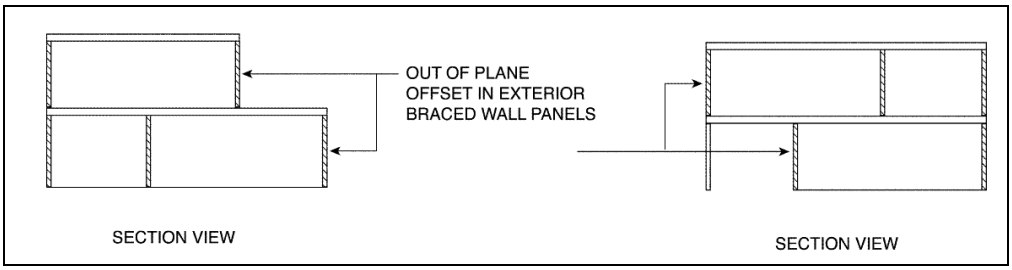


Figure R301.2.2.6(1)
Braced Wall Panels Out of Plane

Exception: For wood light-frame construction, floors with cantilevers or setbacks not exceeding four times the nominal depth of the wood floor joists, see Figure R301.2.2.6(2), are permitted to support *braced wall panels* that are out of plane with *braced wall panels* below provided that all of the following are satisfied:

1. Floor joists are nominal 2 inches by 10 inches (51 mm by 254 mm) or larger and spaced not more than 16 inches (406 mm) on center.
2. The ratio of the back span to the cantilever is not less than 2 to 1.
3. Floor joists at ends of *braced wall panels* are doubled.

4. For wood-frame construction, a continuous rim joist is connected to ends of cantilever joists. Where spliced, the rim joists shall be spliced using a galvanized metal tie not less than 0.058 inch (1.5 mm) (16 gage) and 1-1/2 inches (38 mm) wide fastened with six 16d nails on each side of the splice; or a block of the same size as the rim joist and of sufficient length to fit securely between the joist space at which the splice occurs, fastened with eight 16d nails on each side of the splice.
5. Gravity loads carried at the end of cantilevered joists are limited to uniform wall and roof loads and the reactions from headers having a span of 8 feet (2438 mm) or less.

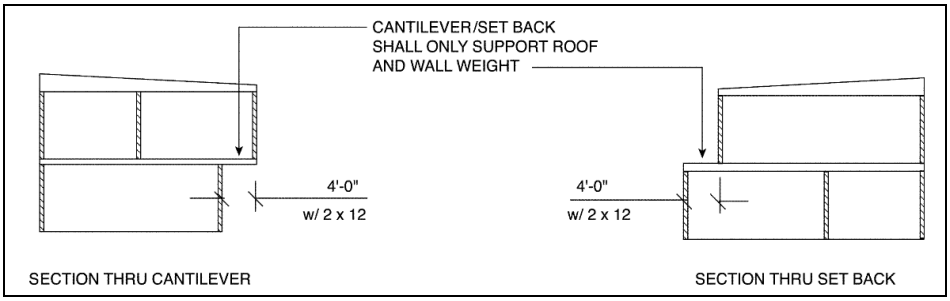


Figure R301.2.2.6(2)
Braced Wall Panels Supported by Cantilever or Setback

2. **Lateral support of roofs and floors.** Conditions where a section of floor or roof is not laterally supported by shear walls or *braced wall lines* on all edges. See Figure R301.2.2.6(3).

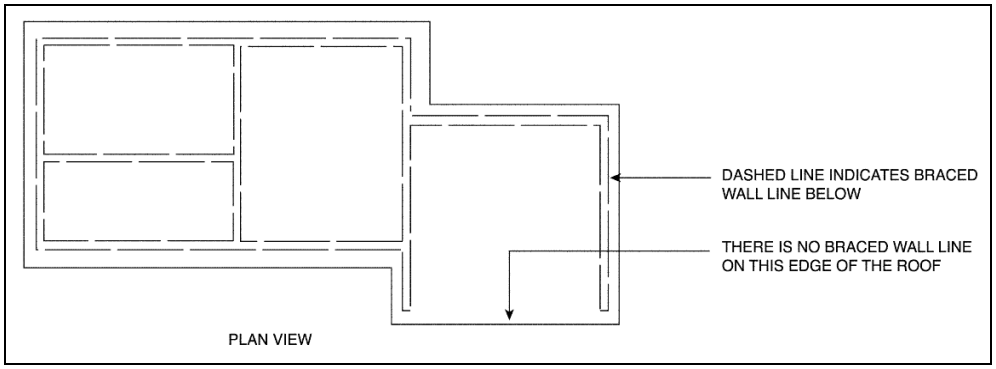


Figure R301.2.2.6(3)
Floor or Roof Not Supported on all Edges

Exception: Portions of floors that do not support shear walls, braced wall panels above, or roofs shall be permitted to extend not more than 6 feet (1829 mm) beyond a shear wall or *braced wall line*. See Figure R301.2.2.6(4).

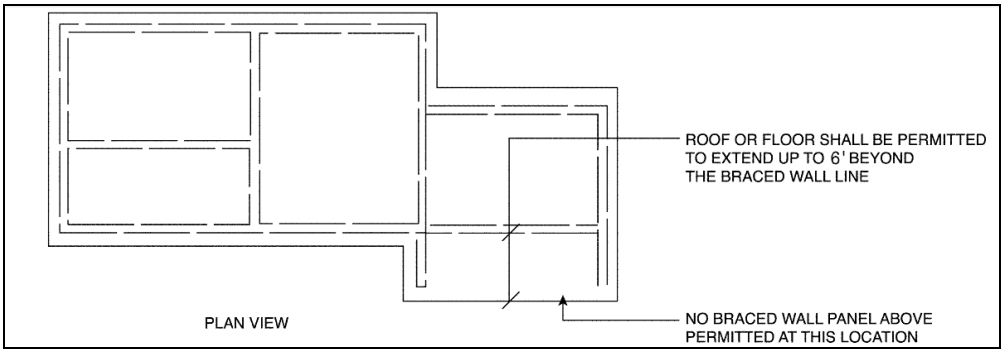


Figure R301.2.2.6(4)
Roof or Floor Extension Beyond Braced Wall Line

3. **Shear wall or braced wall offsets in plane.** Conditions where the end of a *braced wall panel* occurs over an opening in the wall below and extends more than 1 foot (305 mm) horizontally past the edge of the opening. This provision is applicable to shear walls and braced wall panels offset in plane and to braced wall panels offset out of plane in accordance with the exception to Item 1. See Figure R301.2.2.6(5).

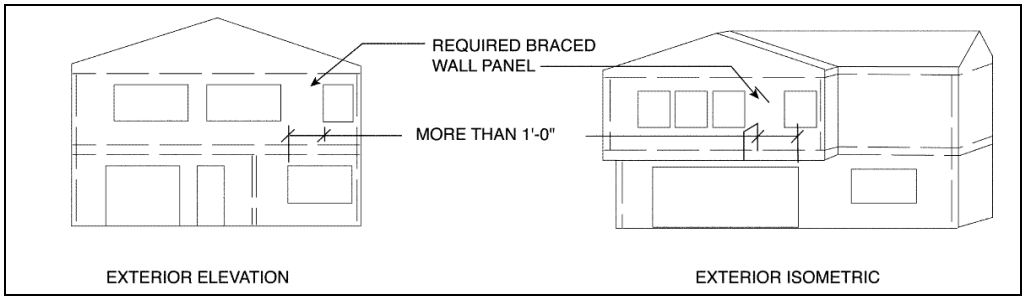


Figure R301.2.2.6(5)
Braced Wall Panel Extension Over Opening

Exception: For wood light-frame wall construction, one end of a *braced wall panel* shall be permitted to extend more than 1 foot (305 mm) over an opening not more than 8 feet (2438 mm) in width in the wall below provided that the opening includes a header in accordance with all of the following:

1. The building width, loading condition and framing member species limitations of Table R602.7(1) shall apply.
2. The header is composed of:
   2.1. Not less than one 2 x 12 or two 2 x 10 for an opening not more than 4 feet (1219 mm) wide.
   2.2. Not less than two 2 x 12 or three 2 x 10 for an opening not more than 6 feet (1829 mm) in width.
   2.3. Not less than three 2 x 12 or four 2 x 10 for an opening not more than 8 feet (2438 mm) in width.
3. The entire length of the *braced wall panel* does not occur over an opening in the wall below.

4. **Floor and roof opening.** Conditions where an opening in a floor or roof exceeds the lesser of 12 feet (3658 mm) or 50 percent of the least floor or roof dimension. See Figure R301.2.2.6(6).

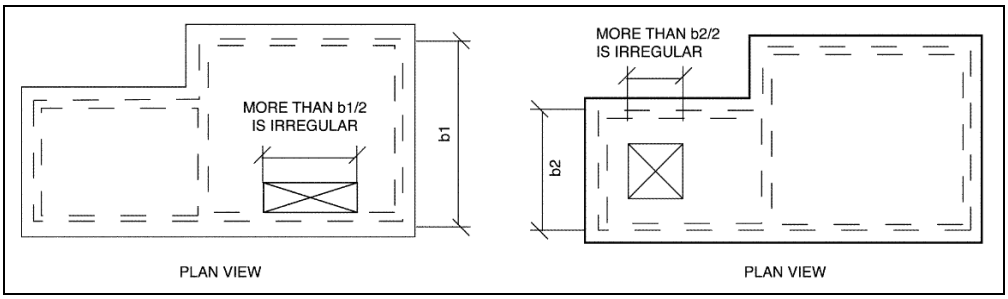


Figure R301.2.2.6(6)
Opening Limitations for Floor and Roof Diaphragms

5. **Floor level offset.** Conditions where portions of a floor level are vertically offset. See Figure R301.2.2.6(7).

Exceptions:

1. Framing supported directly by continuous foundations at the perimeter of the building.
2. For wood light-frame construction, floors shall be permitted to be vertically offset where the floor framing is lapped or tied together as required by Section R502.6.1.

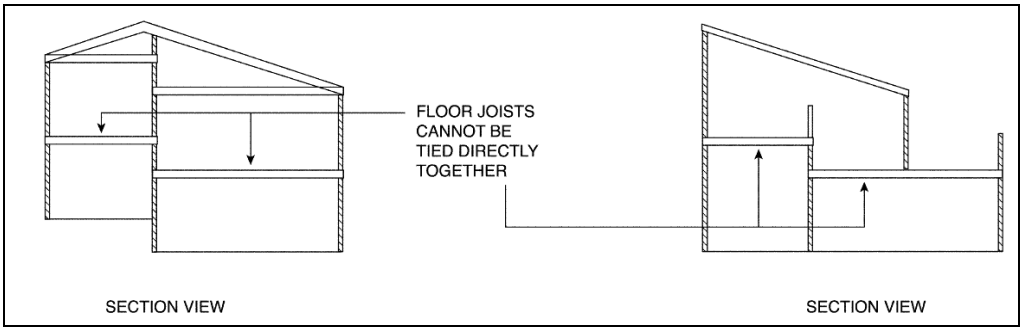


Figure R301.2.2.6(7)
Portions of Floor Level Offset Vertically

6. **Perpendicular shear wall and wall bracing.** Conditions where shear walls and braced wall lines do not occur in two perpendicular directions. See Figure R301.2.2.6(8).

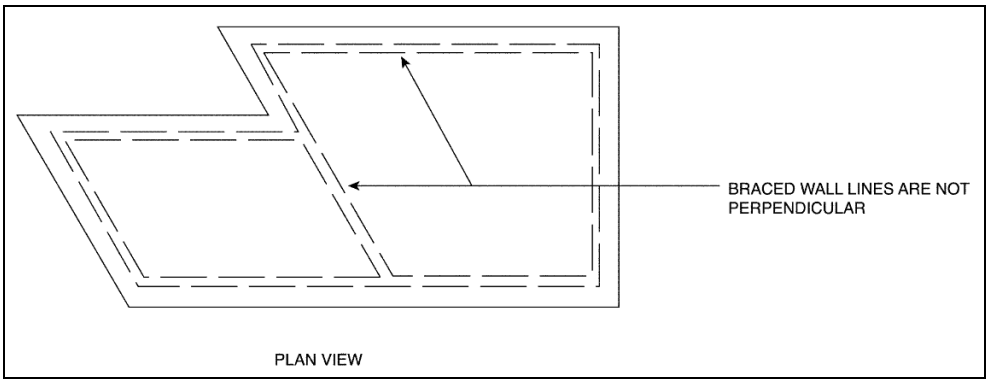


Figure R301.2.2.6(8)
Braced Wall Lines Not Perpendicular

7. **Wall bracing in stories containing masonry or concrete construction.** Conditions where stories above *grade plane* are partially or completely braced by wood wall framing in accordance with Section R602 or cold-formed steel wall framing in accordance with Section R603 include masonry or concrete construction. Where this irregularity applies, the entire story shall be designed in accordance with the Building Code, Chapter 5A, Hawai'i County Code.

Exceptions: Fireplaces, chimneys and masonry veneer in accordance with this code.

(23) Subsection R303.1, "Habitable rooms," of the International Residential Code is amended to read as follows:

"**R303.1 Habitable rooms.** All habitable rooms shall have an aggregate glazing area of not less than 10 percent of the floor area of such rooms. Natural *ventilation* shall be through windows, doors, louvers, or other *approved* openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. Unless required otherwise by the Energy Conservation Code, Chapter 5E, Hawaiʻi County Code, the minimum openable area to the outdoors shall be 5 percent of the floor area being ventilated.

Exceptions:

1. The glazed areas need not be openable where the opening is not required by section R310 and a whole-house mechanical *ventilation* system is installed in accordance with Section M1505.
2. The glazed areas need not be installed in rooms where Exception 1 above is satisfied and artificial light is provided that is capable of producing an average illumination of 6 footcandles (65 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.
3. Use of sunroom and patio covers, as defined in Section R202, shall be permitted for natural *ventilation* if in excess of 65 percent of the exterior sunroom walls are open, or are enclosed only by insect screening."

(24) Subsection R303.3, "Bathrooms," of the International Residential Code is amended to read as follows:

"**R303.3 Bathrooms**. Bathrooms, water closet compartments, laundry rooms, and other similar rooms shall be provided with natural ventilation by means of openable exterior openings with an area not less than one twentieth of the floor area of such rooms with a minimum of 1 ½ square feet."

Exception: The glazed areas shall not be required where artificial light and a local exhaust system are provided. The minimum local exhaust rates shall be determined in accordance with Section M1505. Exhaust air from the space shall be exhausted directly to the outdoors."

(25) Subsection R309.3, "Flood hazard areas," of the International Residential Code is amended to read as follows:

"**R309.3 Flood hazard areas**. Buildings located within areas of special flood hazards pursuant to Chapter 27, Hawai'i County Code, shall be designed and constructed in accordance with Chapter 27, Hawai'i County Code."

(26) Subsection R310.2.1, "Minimum opening area," of the International Residential Code is amended to read as follows:

"**R310.2.1 Minimum opening area.** Emergency and escape rescue openings shall have a net clear opening of not less 5.7 square feet (0.530 m^2). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height of the opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm).

Exceptions:

1. *Grade floor openings or below-grade openings* shall have a net clear opening area of not less than 5 square feet (0.465 m^2).
2. Glass jalousie bladed windows may be used for emergency escape or rescue."

(27) Subsection R313.2, "One-and two-family dwellings automatic fire sprinkler systems," is amended to read as follows:

"An automatic residential fire sprinkler system shall be installed in one- and two-family *dwellings*.

Exceptions:

1. An automatic residential fire sprinkler system shall not be required for *additions* or *alterations* to existing buildings that are not already provided with an automatic residential sprinkler system.

2. In accordance with section 46-19.8, Hawaiʻi Revised Statutes, "Fire sprinklers; residences," until June 30, 2027 the installation or retrofitting of automatic fire sprinklers or an automatic fire sprinkler system shall not be required in:
   2.1 Any new or existing detached one- or two-family dwelling unit in a structure used only for residential purposes; and
   2.2 Nonresidential agricultural and aquacultural buildings and structures located outside an urban area.

Provided that Exception 2 shall not apply to new homes that require a variance from access road or firefighting water supply requirements."

(28) Subsection R317.1, "Location required," of the International Residential Code is amended by amending the first paragraph of this subsection to read as follows: (Paragraphs numbered 1 through 7 that follow this paragraph, shall remain unchanged.)

"**R317.1 Location required.** Protection of wood and wood-based products from decay shall be provided in the following locations by the use of naturally durable wood as approved by the building official, or wood that is preservative-treated in accordance with AWPA U1 for the species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPA U1."

(29) Subsection R318.1, "Subterranean termite control methods," of the International Residential Code is amended to read as follows:

"**R318.1 Subterranean termite control methods.** Methods of protection shall be one of items 1, 2 or 3 and one of items 4, 5, or 6.

1. Chemical termiticide, as provided in Section R318.2.
2. Termite-baiting system installed and maintained according to the *label*.
3. Physical barriers, as provided in Section R318.3 and used in locations as specified in Section R317.1.
4. Pressure-preservative-treated wood in accordance with Section R317.1.
5. Cold-formed steel framing in accordance with Sections R505.2.1 and R603.2.1.
6. Naturally durable termite-resistant wood as approved by the building official."

(30) Subsection R318.4, "Foam plastic protection," of the International Residential Code is amended to read as follows:

"**R318.4 Foam plastic protection.** Extruded and expanded polystyrene, polyisocyanurate and other foam plastics shall not be installed on the exterior face or under interior or exterior foundation walls or slab foundations located below *grade*. The clearance between foam plastics installed above *grade* and exposed earth shall not be less than 6 inches (152 mm).

Exception: On the interior side of *basement walls*."

(31) Section R318, "Protection Against Subterranean Termites," of the International Residential Code is amended by adding Subsection R318.5, "Water splash," to read as follows:

"**R318.5 Water splash.** Where wood-frame walls and partitions are covered on the interior with plaster, tile or similar materials and are subject to water splash, the framing shall be protected with approved waterproof paper."

(32) Section R318, "Protection Against Subterranean Termites," of the International Residential Code is amended by adding Subsection R318.6, "Pipe and other penetrations," to read as follows:

"**R318.6 Pipe and other penetrations.** Insulations around plumbing pipes shall not pass through ground floor slabs. Openings around pipes or similar penetrations in a concrete or masonry slab, which is in direct contact with earth, shall be filled with non-shrink grout, or other approved physical barrier."

(33) Subsection R320.1, "Scope," of the International Residential Code is amended to read as follows:

"**R320.1 Scope.** Where there are four or more *dwelling* units or sleeping units in a single structure, the following provisions for Group R-3 apply:

1. For construction of buildings or facilities of the State and County governments, compliance with Section 103-50, Hawai'i Revised Statutes, administered by the Disability and Communication Access Board, State of Hawai'i.
2. Department of Justice's Americans with Disabilities Act Standards for Accessible Design.

3. Housing and urban development recognized "safe harbors" for compliance with the Fair Housing Acts design and construction requirements.
4. Other pertinent laws relating with disabilities shall be administered and enforced by agencies responsible for their enforcement.

Prior to the issuance of a *building* permit, the owner (or the owner's representative, professional architect, or engineer), shall submit a statement that all requirements relating to accessibility for persons with disabilities will be complied with."

(34) Subsection R322.2, "Flood hazard areas (including A Zones)," of the International Residential Code is amended to read as follows:

"**R322.2 Flood hazard areas (including A Zones).** Buildings located within areas of special flood hazards pursuant to Chapter 27, Hawaiʻi County Code, shall be designed and constructed in accordance with Chapter 27, Hawaiʻi County Code."

(35) Section R323, "Storm Shelters" of the International Residential Code, is amended to read as follows:

"**SECTION R323**
HAWAIʻI RESIDENTIAL SAFE ROOMS

R323.1 General. This section applies to storm shelters where constructed as separate detached buildings or where constructed as safe rooms within buildings for the purpose of providing refuge from storms that produce high winds, such as tornados and hurricanes. In addition to other applicable requirements in this code, storm shelters shall be constructed in accordance with ICC/NSSA-500 or Subsection R323.2.

R323.2 Performance-based design criteria. The residential safe room shall meet the minimum performance specifications of Sections 323.2.1 through 323.11.

R323.2.1 Intent and scope. The intent of the residential safe room is to temporarily provide an enhanced protection area, fully enclosed within a *dwelling* or within an accessory structure to a residence, which is designed and constructed to withstand the wind pressures, windborne debris impacts, and other requirements of this section.

R323.2.2 Alternative standards.

1. Manufactured safe room designs subject to approval. A manufactured safe room or safe room kit may be substituted if documentation is submitted and approved by the building official. The safe room shall be engineered, tested, and manufactured to meet or exceed the criteria of this section.
2. FEMA in-residence shelter designs permitted. It shall be permissible to build FEMA In-Residence Shelters of up to 64 square feet of floor area with walls up to 8 feet long that are built in accordance with construction details of FEMA 320.

R323.3 Site criteria. Residential safe rooms shall not be constructed within areas subject to stream flooding, coastal flooding or dam failure inundation within any of the following areas**:**

1. FEMA Special Flood Hazard Areas (SFHA) subject to rainfall runoff flooding or stream or flash flooding;
2. Coastal zones "V" or "A" identified in the Flood Insurance Rate Map (FIRM) issued by FEMA for floodplain management purposes, in which the flood hazard are tides, storm surge, waves, tsunamis, or a combination of these hazards; or
3. Areas subject to dam failure inundation as determined by the Department of Land and Natural Resources.

R323.4 Size of safe room. The safe room shall be designed to provide a minimum of 15 square feet per person in a room which does not need to exceed 120 square feet (11 m^2) of floor area.

R323.5 Provisions for exiting. The safe room shall be equipped with an inward-swinging interior door and an impact-protected operable window or exterior door suitable for a means of alternative exiting in an emergency.

R323.6 Design for dead, live, wind, rain, and impact loads.

R323.6.1 Structural integrity criteria.

1. The residential safe room shall be built with a complete structural system and a complete load path for vertical and lateral loads caused by gravity and wind.
2. The building that the residential safe room is in shall be assumed to be destroyed by the storm and shall not be taken as offering any protective shielding to the safe room enclosure.
3. The ceiling structure and wall shall be capable of supporting a superimposed debris load of the full weight of any building floors and roof above, but not less than 125 psf.

4. The residential safe room enclosure shall be capable of simultaneously resisting lateral and uplift wind pressures corresponding to a 145 mph 3-second peak gust ultimate design wind speed, determined in accordance with ASCE – 7, Minimum Design Loads for Buildings and Other Structures. The site exposure factor shall be based on exposure C or the exposure shown in Figure R301.2.1.4(a), whichever is the greater. The values for the gust factor and the directionality factor shall be taken as 0.85. Topographic wind amplification caused by mountainous terrain shall be considered in accordance with the building code. Internal pressure shall be determined in accordance with ASCE – 7.
5. The residential safe room shall be anchored to a foundation system capable of resisting the above loading conditions.

R323.6.2 Windborne debris impact protection of building enclosure elements. The entire enclosure of the safe room, including all walls, ceilings, and openings, fixed or operable windows, and all entry doors into the safe room, shall meet or exceed Level D requirements of ASTM E 1996 (Table 323.6.1), or be an approved assembly listed in Section 323.6.4. Any wall or ceiling penetration greater than 4 square inches shall be considered an opening.

Exception: Electrical outlet boxes and interior lighting switches not penetrating more than 2.5-inches into the interior wall surface and a plumbing piping or conduit not greater than 1.5-inch in diameter shall be exempted from this requirement.

R323.6.3 Cyclic pressure loading of glazing and protective systems. Impact protective systems shall meet the ASTM E 1996 cyclic pressure requirement for the loading given in Table 323.6.1.

Table 323.6.1
WINDBORNE DEBRIS PROTECTION AND CYCLIC PRESSURE CRITERIA FOR RESIDENTIAL SAFE ROOMS

ASTM E 1996 Missile Level Rating	Debris Missile Size	Debris Impact Speed	Enclosure Wall Ceiling, and Floor Cyclic Air Pressure Testing - maximum inward and maximum outward pressures
D	2 x 4 weighing 9.0 lb. +/- 0.25 lb., and with min. length 8 ft. +/- 4-inch	50 ft./sec. or at least 34 mph	35 psf inward 45 psf outward

R323.6.2 Approved debris impact resistant wall assemblies.
The following methods of wall assembly construction shall be deemed to comply with Section R323.6.2:

1. 3/4-inch plywood on wood studs spaced at 16 inches on-center with #8 X 3 inch wood screws at 6 inches on-center.
2. 3/4-inch plywood attached to double studs spaced at 16 inches on-center with #8 X 3 inch wood screws at 6 inches on-center.
3. 8-1/4 inch cementitious lap siding over 22 gage sheet metal attached to 350S-162-33 studs spaced at 24 inches on-center.
4. 8-1/4 inch cementitious lap siding attached to 350S-162-33 studs spaced at 24 inches on-center studs with interior 3/4-inch interior plywood sheathing.
5. 8-1/4 inch cementitious lap siding attached to 350S-162-33 studs spaced at 24 inches on-center with 1/2-inch interior 22 gage sheet metal composite gypsum wallboard.
6. 8-1/4 inch cementitious lap siding attached to 2 inch X 4 inch wood studs spaced at 16 inches on-center with 1/2-inch interior 22 gage sheet metal composite gypsum wallboard.
7. 8-1/4 inch cementitious lap siding attached to 2 inch X 4 inch wood studs spaced at 16 inches on-center with 22 gage sheet metal and 1/2-inch interior gypsum wallboard.
8. Cementitious lap siding attached to 5/8-inch structural plywood on 2 inch X 4 inch wood studs spaced at 16 inches on-center.
9. Cementitious-panel siding attached to 5/8-inch structural plywood on 2 inch X 4 inch or 362S-137-43 steel studs spaced at 16 inches on-center.

10. EFS with 1/2-inch dens-glass gold exterior sheathing on 362S-137-43 steel studs spaced at 16 inches on-center and 1/2-inch interior gypsum wallboard.
11. 24 gage steel sheet (50 ksi) on girts.
12. Concrete with a thickness of 4 inches with reinforcing.
13. Concrete masonry units with a thickness of 6 inches with partial grouting and reinforcing spaced at 24 inches on-center.
14. Concrete masonry units with a thickness of 8 inches with partial grouting and reinforcing spaced at 24 inches on-center.
15. Interior or exterior wall with laterally braced 2 inch x 4 inch wood studs with sheathing on either side of 22 gage sheet metal.

Sheathing shall be attached to studs with fasteners at 6 inches (152 mm) on center for edge and field fastening.

R323.7 Ventilation. The residential safe room shall be naturally ventilated to allow the enclosure to have approximately one air change every two hours. This requirement may be satisfied by 12 square inches of venting per occupant. There shall be at least two operable vents. The vents shall be protected by a cowling or other device that shall be impact tested to comply with ASTM E 1996-14 Level D. Alternatively, the room shall be evaluated to determine if the openings are of sufficient area to constitute an open or partially enclosed condition as defined in ASCE 7.

R323.8 Communications. The residential safe room shall be equipped with a phone line and telephone that does not rely on a separate electrical power outlet. Alternatively, a wireless telephone shall be permitted to rely on an Uninterruptible Power Supply (UPS) battery device.

R323.9 Construction documents. Construction documents for the residential safe room shall be directly prepared by a Hawaiʻi licensed professional structural engineer.

R323.10 Special inspection. The construction or installation of the residential safe room shall be verified for conformance to the drawings in accordance with the appropriate requirements of Chapter 17 of the International Building Code.

R323.11 Notification. The owner of the safe room shall notify the State Department of Defense and County Civil Defense Agency of the property's Tax Map Key or Global Positioning System coordinates."

(36) Section R326, "Swimming Pools, Spas and Hot Tubs" of the International Residential Code, is amended to read as follows:

"**R326.1 General.** Swimming pools shall comply with the requirements of sections R326.2 through R326.4 and other applicable sections of this code.

R326.2. Definition. "**SWIMMING POOL**" shall, for the purposes of this section, have the following meaning: "Any structure intended for swimming, recreational bathing or wading that contains water over 24 inches (610 mm) deep. This includes in-ground, above-ground and on-ground pools; hot tubs; spas and fixed-in-place wading pools."

R326.3 Residential swimming pools. Residential swimming pools shall comply with Sections R326.3.1 through R326.3.4.

Exception: A swimming pool with a power safety cover or a spa with a safety cover complying with ASTM F 1346 need not comply with Section R326.3.

R326.3.1 Barrier height and clearances. The top of the barrier shall be at least 48 inches (1219 mm) above grade measured on the side of the barrier that faces away from the swimming pool. The vertical clearance between grade and the bottom of the barrier shall be not greater than 2 inches (51 mm) measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool structure, and the vertical clearance between the top of the pool structure and the bottom of the barrier shall be not greater than 4 inches (102 mm).

R326.3.1.1 Openings. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.

R326.3.1.2 Solid barrier surfaces. Solid barriers which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

R326.3.1.3 Closely spaced horizontal members. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall be not

greater than 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall be not greater than 1.75 inches (44 mm) in width.

R326.3.1.4 Widely spaced horizontal members. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall be not greater than 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall be not greater than 1.75 inches (44 mm) in width.

R326.3.1.5 Chain link dimensions. Mesh size for chain link fences shall be not greater than a 2.25 inch square (57 mm square) unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches (44 mm).

R326.3.1.6 Diagonal members. Where the barrier is composed of diagonal members, the opening formed by the diagonal members shall be not greater than 1.75 inches (44 mm).

R326.3.1.7 Gates. Access doors or gates shall comply with the requirements of Sections R326.3.1.1 through R326.3.1.6 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the door or gate, the release mechanism shall be located on the pool side of the door or gate at least 3 inches (76 mm) or more, below the top of the door or gate, and the door or gate and barrier shall be without openings greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

R326.3.1.8 Dwelling wall as a barrier. Where a wall of a *dwelling* serves as part of the barrier, one of the following shall apply:

1. Doors with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. The audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds after the door and/or its screen, if present, are opened and be capable of being heard throughout the house during normal household activities. The alarm shall

automatically reset under all conditions. The alarm shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. In dwellings not required to be Accessible, Type A or Type B units, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings required to be Accessible, Type A or Type B units, the deactivation switch shall be located not higher than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the threshold of the door.

2. The pool shall be equipped with a power safety cover that complies with ASTM F 1346.
3. Other means of protection, such as self-closing doors with self-latching devices, which are *approved*, shall be accepted so long as the degree of protection afforded is not less than the protection afforded by Section R326.3.1.8, Item 1 or 2.

R326.3.1.9 Pool structure as barrier. Where an aboveground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then the ladder or steps either shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier which meets the requirements of Sections R326.3.1.1 through R326.3.1.8. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch diameter (102 mm) sphere.

R326.3.2 Indoor swimming pools. Walls surrounding indoor swimming pools shall not be required to comply with Section R326.3.1.8.

R326.3.3 Prohibited locations. Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

R326.4 Entrapment avoidance. Suction outlets shall be designed and installed in accordance with ANSI/APSP-7."

(37) Section R401, "General," of the International Residential Code, is amended by adding subsection R401.5, "Post or pier foundations," to read as follows:

"**R401.5 Post or pier foundations.** Raised floor systems supported by post or pier foundations shall be designed in accordance with the Building Code, Chapter 5A, Hawai'i County Code."

(38) Subsection R402.2.1, "Materials for concrete," of the International Residential Code is amended to read as follows:

"**R402.2.1 Materials for concrete.** Materials for concrete shall comply with the requirements of Section R608.5.1. The maximum water to cement ratio for concrete slabs-on-grade shall not exceed 0.50."

(39) Section R403, "Footings," of the International Residential Code is amended by adding subsection R403.1.6.2, "Concrete strap type anchors," to read as follows:

"**R403.1.6.2 Concrete strap-type anchors.** Concrete strap-type anchors made out of cold-formed steel shall not be used along the perimeter edges of a slab-on-grade where the steel does not have at least 1-1/2 inches side cover or other adequate protection."

(40) Section R403, "Footings," of the International Residential Code is amended by adding subsection R403.1.6.3, "Anchor bolts at the perimeter edge of a slab on grade," to read as follows:

"**R403.1.6.3 Anchor bolts at the perimeter edge of a slab-on-grade.** Anchor bolts must be hot dipped galvanized in accordance with ASTM F2329 and have a minimum concrete side cover of 1-1/2 inches unless provisions have been made to protect the anchor bolts from corrosion."

(41) Subsection R406.1, "Concrete and masonry foundation dampproofing," of the International Residential Code is deleted in its entirety.

(42) Subsection R406.2, "Concrete and masonry foundation waterproofing," of the International Residential Code is amended to read as follows:

"**R406.2 Concrete and masonry foundation waterproofing.** Exterior foundation walls that retain earth and enclose interior spaces and floors below *grade* shall be waterproofed from the top of the footing to the finished *grade*. Walls shall be waterproofed in accordance with one of the following:

1. Two-ply hot-mopped felts.
2. Fifty-five-pound (25 kg) roll roofing.
3. Forty-mil (1 mm) polymer-modified asphalt.
4. Sixty-mil (1.5 mm) flexible polymer cement.

5. One-eighth-inch (3 mm) cement-based, fiber-reinforced, waterproof coating.
6. Sixty-mil (1.5 mm) solvent-free liquid-applied synthetic rubber.

All joints in membrane waterproofing shall be lapped and sealed with an adhesive compatible with the membrane.

Exception: Organic-solvent-based products such as hydrocarbons, chlorinated hydrocarbons, ketones and esters shall not be used for ICF walls with expanded polystyrene form material. Use of plastic roofing cements, acrylic coatings, latex coatings, mortars and pargings to seal ICF walls is permitted. Cold-setting asphalt or hot asphalt shall conform to type C of ASTM D 449. Hot asphalt shall be applied at a temperature of less than 200°F (93°C)."

(43) Subsection R406.3, "Dampproofing for wood foundations," of the International Residential Code is amended to read as follows:

"**R406.3 Waterproofing for wood foundations.** Wood foundations enclosing habitable or usable spaces located below *grade* shall be waterproofed in accordance with Section R406.2."

(44) Subsection R406.3.2, "Below-grade moisture barrier," of the International Residential Code is amended to read as follows:

"**R406.3.2 Below-grade waterproofing.** One of the waterproofing systems listed in R406.2 shall be applied over the below-*grade* portion of exterior foundation walls prior to backfilling. The top edge of the waterproofing shall be bonded to the sheathing to form a seal. Film areas at *grade* level shall be protected from mechanical damage and exposure by a pressure-preservative treated lumber or plywood strip attached to the wall several inches above finished *grade* level and extending approximately 9 inches (229 mm) below *grade*. The joint between the strip and the wall shall be caulked full length prior to fastening the strip to the wall. Other coverings appropriate to the architectural treatment may also be used. The waterproofing shall extend down to the bottom of the wood footing plate but shall not overlap or extend into the gravel or crushed stone footing."

(45) Subsection R406.4, "Precast concrete foundation system dampproofing," of the International Residential Code is deleted in its entirety.

(46) Section R406, "Foundation Waterproofing and Damp-proofing," of the International Residential Code is amended by adding subsection R406.5, "Cold formed steel protection of sill track," to read as follows:

"**R406.5 Cold formed steel protection of sill track.** Cold formed steel framing sills that directly bear on concrete or masonry that is in direct contact with earth shall be shielded along the exterior flange and bottom of the sill track with a self-adhered rubberized asphalt flashing material with a minimum thickness of 25 mil (0.64 mm) or other moisture barrier conforming to ASTM D412, D570, and E96/E96M."

(47) Section R408, "Under-Floor Space," of the International Residential Code is amended by adding subsection R408.8, "Under-floor clearance," to read as follows:

"**R408.8 Under-Floor Clearance.** Minimum clearance between the bottom of floor joists or bottom of floors without joists and the ground beneath is 24 inches (610 mm); the minimum clearance between the bottom of girders and the ground is 18 inches (457 mm).

Exception: Open slat wood decks must have ground clearance of at least 6 inches (152 mm) for any wood member."

(48) Subsection R602.10.9, "Braced wall panel support," of the International Residential Code shall be amended to read as follows:

"**R602.10.9 Braced wall panel support.** *Braced wall panel* support shall be provided as follows:

1. Cantilevered floor joists complying with Section R502.3.3 shall be permitted to support *braced wall panels*.
2. Raised floor system post or pier foundations supporting *braced wall panels* shall be designed in accordance with the Building Code, Chapter 5A, Hawaiʻi County Code.
3. Masonry stem walls with a length of 48 inches (1219 mm) or less supporting *braced wall panels* shall be reinforced in accordance with Figure R602.10.9. Masonry stem walls with a length greater than 48 inches (1219 mm) supporting *braced wall panels* shall be constructed in accordance with Section R403.1 Methods ABW and PFH shall not be permitted to attach to masonry stem walls.
4. Concrete stem walls with a length of 48 inches (1219 mm) or less, greater than 12 inches (305 mm) tall and less than 6 inches (152 mm) thick shall have reinforcement sized and located in accordance with Figure R602.10.9."

(49) Subsection R806.1, "Ventilation required," of the International Residential Code is amended to read as follows:

"**R806.1 Ventilation required.** Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7. Required ventilation openings shall open directly to the outside air and shall be protected to prevent the entry of birds, rodents, snakes and other similar creatures.

Exception: The attic space shall be permitted to be unvented when the design professional determines it would be beneficial to eliminate ventilation openings to reduce salt-laden air and maintain relative humidity 60 percent or lower to:

1. Avoid corrosion to steel components;
2. Avoid moisture condensation in the attic space; or
3. Minimize energy consumption for air conditioning or ventilation by maintaining satisfactory space conditions in both the attic and occupied space below."

(50) Chapter 11, "Energy Efficiency," of the International Residential Code is deleted in its entirety. Refer to the Energy Conservation Code, Chapter 5E, Hawai'i County Code.

(51) Subsection M1301.1, "Scope," of the International Residential Code shall be amended to read as follows:

"**M1301.1 Scope.** The provisions of this chapter shall govern the installation of mechanical systems not specifically covered in other chapters applicable to mechanical systems. Installations of mechanical *appliances*, *equipment* and systems not addressed by this code shall comply with the applicable provisions of nationally published codes or standards and with the Plumbing Code, Chapter 5F, Hawai'i County Code.

(52) Subsection M1307.4.2, "Mechanical ventilation," of the International Residential Code shall be amended to read as follows:

"**M1307.4.2 Mechanical ventilation.** Indoor locations intended for hydrogen-generating or refueling operations shall be ventilated in accordance with the applicable provisions of nationally published mechanical codes or standards."

(53) Subsection M1901.1, "Clearances," of the International Residential Code shall be amended to read as follows:

"**M1901.1 Clearances.** Freestanding or built-in ranges shall have a vertical clearance above the cooking top of not less than 30 inches (762 mm) to unprotected combustible material. Reduced clearances are permitted in accordance with the *listing* and *labeling* of the range hoods or ovens with integral exhaust. The clearances for a domestic open-top broiler unit shall be in accordance with Section M1503.2.1.

Minimum Horizontal Clearance. The minimum horizontal clearance from edge of the burner head(s) of top (or surface) cooking unit to combustible walls extending above the cooking surface shall be not less than 12 inches.

Exception: Walls of combustible materials to be installed within 12 inches of a cooking unit shall be provided with protection equivalent to 1/2-inch gypsum wallboard covered with laminated plastic. The height of the laminated plastic shall be 12 inch minimum."

(54) Chapter 20, "Boilers and Water Heaters," of the International Residential Code is deleted in its entirety and replaced with provisions relating to water heaters in the Plumbing code, Chapter 5F, Hawai'i County Code.

(55) Chapter 21, "Hydronic Piping," of the International Residential Code is amended by amending its title to read as follows:

"**CHAPTER 21**
HYDRONIC PIPING

(FOR REFERENCE ONLY)"

(56) Chapter 21, "Hydronic Piping," of the International Residential Code is amended by adding a section M2100, "Reference," to read as follows:

"**Section M2100 Reference.** The provisions of this chapter shall be deemed to be guidelines only and not mandatory."

(57) Chapter 22, "Special Piping and Storage Systems," of the International Residential Code is amended by amending its title to read as follows:

"**CHAPTER 22**
SPECIAL PIPING AND STORAGE SYSTEMS

(FOR REFERENCE ONLY)"

(58) Chapter 22, "Special Piping and Storage Systems," of the International Residential Code is amended by adding a section M2200, "Reference," to read as follows:

"**Section M2200 Reference.** The provisions of this chapter shall be deemed to be guidelines only and not mandatory."

(59) Chapter 23, "Solar Thermal Energy Systems," of the International Residential Code is deleted in its entirety. Refer to the Electrical Code, Chapter 5D, Hawai'i County Code and the Plumbing Code, Chapter 5F, Hawai'i County Code.

(60) Chapter 24, "Fuel Gas," of the International Residential Code is deleted in its entirety. Refer to the Plumbing Code, Chapter 5F, Hawai'i County Code.

(61) Chapters 25 through 32 that are contained in Part VII, "Plumbing," of the International Residential Code are deleted in their entirety. Refer to the Plumbing Code, Chapter 5F, Hawai'i County Code.

(62) Chapter 33, "Storm Drainage," of the International Residential Code is deleted in its entirety.

(63) Chapters 34 thru 43 that are contained in Part VIII, "Electrical," of the International Residential Code are deleted in their entirety. Refer to the Electrical Code, Chapter 5D, Hawai'i County Code.

(2021, ord 21-61, sec 1; am 2024, ord 24-17, sec 1.)

Article 3. Adoption, Amendment, and Addition of Appendices.

Division 1. Appendices of International Residential Code Adopted.

Section 5B-3-1. Appendices not applicable.

Provisions in the appendices of the International Residential Code shall not apply unless specifically adopted.

(2021, ord 21-61, sec 1.)

Section 5B-3-2. Appendices of the International Residential Code adopted.

The following appendices of the International Residential Code are adopted by reference and made a part of this code, subject to any amendments set forth in this article:

(1) Appendix H, Patio Covers;
(2) Appendix M, Home Day Care – R-3 Occupancy; and
(3) Appendix Q, Tiny Houses.

(2021, ord 21-61, sec 1.)

Section 5B-3-3. Appendix Q; Tiny Houses.

Appendix Q is deleted in its entirety and replaced with the following:

"**APPENDIX Q**
TINY HOUSES

SECTION AQ101
GENERAL

AQ101.1 Scope. This appendix shall be applicable to *tiny houses* used as single *dwelling units* and *tiny houses* that contain a *loft*. *Tiny houses* shall comply with the International Residential Code except as otherwise stated in this appendix.

AQ101.1.1 Limitations. *Tiny houses* shall not contain more than one *loft*, or *loft* space. *Tiny houses* that contain a *loft* may not be used for any purpose other than as a detached single-family *dwelling*.

SECTION AQ102
DEFINITIONS

AQ102.1 General. The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of the International Residential Code for general definitions.

EGRESS ROOF ACCESS WINDOW. A *skylight* or roof window designed and installed to satisfy the emergency escape and rescue opening requirements in Section R310.2.

LANDING PLATFORM. A landing measuring two treads deep and two risers tall, provided as the top step of a stairway accessing a *loft*.

LOFT. Any floor level located above the main floor and open to it on at least one side, with a ceiling height less than 6 feet 8 inches (2032 mm), complying with the area, access, and guard requirements of Section AQ105, and used as a living or sleeping space.

TINY HOUSE. A *dwelling* which is 500 square feet (37 m^2) or less in floor area excluding *lofts*. The maximum total floor area of 500 square feet shall mean the sum of the horizontal areas of each floor of a building measured from the exterior faces of the exterior walls. The total floor area shall include enclosed attached accessory structures such as garages or storage areas. Unenclosed attached structures such as carports, breezeways, lanais, or porches shall be excluded.

SECTION AQ103
FOUNDATIONS

AQ103.1 General. All exterior walls shall be permanently supported on continuous solid or fully grouted masonry or concrete footings, crushed stone footings, wood foundations, or other approved structural systems pursuant to Chapter 4 of the International Residential Code, which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill.

SECTION AQ104
CEILING HEIGHT

AQ104.1 Minimum ceiling height. *Habitable space* and hallways in *tiny houses* shall have a ceiling height not less than 6 feet 8 inches (2032 mm). Bathrooms, toilet rooms, and kitchens shall have a ceiling height not less than 6 feet 4 inches (1930 mm). No obstructions shall extend below these minimum ceiling heights including beams, girders, ducts, lighting, or other obstructions.

Exception: Ceiling heights in *lofts* are permitted to be less than 6 foot 8 inches (2032 mm).

SECTION AQ105
LOFTS

AQ105.1 Minimum loft areas. *Lofts* used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AQ105.1.1 through AQ105.1.3.

AQ105.1.1 Minimum area. *Lofts* shall have a floor area of not less than 35 square feet (3.25 m^2).

AQ105.1.2 Minimum dimensions. *Lofts* shall be not less than 5 feet (1524 mm) in any horizontal dimension.

AQ105.1.3 Height effect on loft area. Portions of a *loft* with a sloping ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

Exception: Under gable roofs with a minimum slope of 6:12, portions of a *loft* with a sloping ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

AQ105.1.4 Minimum ceiling height. *Lofts* shall have a ceiling height of not less than 3 feet (914.4 mm).

AQ105.1.4.4.1 Undersized lofts. *Lofts* having a ceiling height of less than 6 feet (1828.8 mm) for more than 50 percent of the required minimum area shall comply with both of the following:

1. All wall and ceiling of the *dwelling unit* shall be a minimum 1/2 inch gypsum board or other approved Class A finish, throughout the entire *dwelling unit*.
2. In addition to the *loft* smoke alarm required by AQ105.4, all other required smoke alarms within the *dwelling unit* shall be a photoelectric-type complying with R314.

AQ105.1.5 Maximum loft size. The aggregate floor area of a *loft* shall not be greater than one-third of the floor area of the room or space in which they are located.

AQ105.2 Loft access. The access to and primary egress from *lofts* shall be of any type described in Sections AQ105.2.1 through AQ105.2.4. All methods of *loft* access and egress shall be positively anchored to prevent displacement.

AQ105.2.1 Stairways. Stairways accessing *lofts* shall comply with this code or with Sections AQ105.2.1.1 through AQ105.2.1.5.

AQ105.2.1.1 Width. Stairways accessing a *loft* shall not be less than 17 inches (432 mm) in clear width at all points at or above the permitted handrail height. The minimum width below the handrail shall not be less than 20 inches (508 mm).

AQ105.2.1.2 Headroom. The headroom in stairways accessing a *loft* shall not be less than 6 feet 2 inches (1880 mm) measured vertically from the sloped line connecting the tread nosing in the middle of the tread width.

Exception: The headroom for landing platforms shall not be less than 4 feet 6 inches (1372 mm).

AQ105.2.1.3 Treads and Risers. Risers for stairs accessing a *loft* shall be a minimum of 7 inches (178 mm) and a maximum of 12 inches (305 mm). Tread depth and riser height shall be calculated with the following formulas:

Tread depth = 20 inches (508 mm) minus 4/3 riser height

or

Riser height = 15 inches (381 mm) minus 3/4 tread depth

Exception: Landing platforms shall measure two treads deep and two risers tall.

AQ105.2.1.4 Handrails. Handrails shall comply with Section R311.7.8.

AQ105.2.1.5 Stairway guards. Guards at open sides of stairways shall comply with Section R312.1.

AQ105.2.2 Ladders. Ladders accessing *lofts* shall comply with Sections AQ105.2.2.1 and AQ105.2.2.2.

AQ105.2.2.1 Size and capacity. Ladders accessing *lofts* shall have 12 inches (305 mm) minimum rung width and 10 inches (254 mm) to 14 inch (356 mm) spacing between rungs. Ladders shall be capable of supporting a 300 pound (136 kg) load on any rung. Rung spacing shall be uniform within 3/8-inch (9.5 mm). The maximum height of a ladder shall be 8 feet (2438 mm).

AQ105.2.2.2 Incline. Ladders shall be installed at 70 to 80 degrees from horizontal.

AQ105.2.3 Alternating tread devices. Alternating tread devices accessing *lofts* 200 square feet or less shall comply with Sections R311.7.11.1 and R311.7.11.2. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

AQ105.2.4 Ships ladders. Ships ladders accessing *lofts* 200 square feet or less shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

AQ105.3 Loft guards. Loft guards shall be located along the open side(s) of *lofts* located more than 30 inches (762 mm) above the main floor. Loft guards shall be not less than 36 inches (914 mm) in height or one-half the clear height to the ceiling, whichever is less. Loft guards are not required at the loft accessing means connection to the loft.

AQ105.4 Loft smoke alarms. *Lofts* shall be equipped with a minimum of one photoelectric-type smoke alarm complying with Section R314.

AQ105.5 Loft location. *Lofts* shall not be located directly above a permanently installed cooking appliance. Permanently installed cooking appliances shall not be located within 12 inches (304.8 mm) horizontally of a *loft* open edge, measured to the vertical plane of the loft edge.

SECTION AQ106
EMERGENCY ESCAPE AND RESCUE OPENINGS

AQ106.1 General. *Tiny houses* shall meet the requirements of Section R310 for emergency escape and rescue openings.

Exception: *Egress roof access windows* in *lofts* used as sleeping rooms shall be deemed to meet the requirements of Section R310 where installed with the bottom of their clear opening no more than 44 inches (1118 mm) above the *loft* floor provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1."

(2021, ord 21-61, sec 1.)

Division 2. Appendix Added to the International Residential Code.

Section 5B-3-21. Reserved.
(2021, ord 21-61, sec 1.)

Section 5B-3-22. Appendix U; Factory-built Housing.
Appendix U is added to this code, to read as follows:

"**APPENDIX U**
FACTORY-BUILT HOUSING

SECTION U101
APPLICABILITY

U101.1 Purpose. These provisions are applicable to the design, construction, installation, and transportation of factory-built housing within the County. Unless otherwise specified this article shall be applicable only to factory-built housing which is sold or offered for sale to first users as defined below.

Exception: Manufactured homes manufactured and certified in accordance with the Manufactured Home Construction and Safety Standards as promulgated by the United States Department of Housing and Urban Development. Foundation, exterior stairs, additions and accessory structures shall comply with Article 1, Adoption of the International Building Code and International Residential Code for One- and Two-Family Dwellings.

All provisions of the building, housing, electrical, and plumbing codes shall be applicable unless indicated otherwise in this article.

U101.2 Definitions. The following terms are defined for specialized use within this article:

"Building official" means the director of the department of public works or the director's authorized representative.

"Factory-built housing" means any structure or portion thereof designed primarily for residential occupancy by human beings, which is either entirely prefabricated or assembled at a place other than the building site.

"First user" means a person, firm or corporation who initially installs factory-built housing within this State. A person who subsequently purchases an installed factory-built housing is not a first user within the meaning of this definition.

"Insignia of approval" means a tag, tab, stamp, label or other device issued by the building official to indicate compliance with the statutes and these rules.

"Installation" means the assembly of factory-built housing on site and the process of affixing factory-built housing to land, a foundation or an existing building.

"Manufacture" means the process of making, fabricating, constructing, forming, or assembling factory-built housing at a place other than the building site.

"Site" means the parcel of land on which factory-built housing is installed.

U101.3 Building permit required.

(a) No person shall perform any of the following work or cause or permit the same to be done on any factory-built housing in the County, without first obtaining a permit for this work from the building official:
   (1) Manufacture, install, erect, construct, enlarge, alter, repair, relocate, improve, remove, convert, or demolish any factory-built housing;
   (2) Manufacture, erect, install, enlarge, alter, repair, remove, convert, or replace any electrical work; or
   (3) Manufacture, erect, install, enlarge, alter, repair, remove, convert, or replace any plumbing, fire sprinkler, gas, or drainage piping work, or any fixture, gas appliance, water heating, or water treating equipment.

(b) To obtain a permit, an applicant shall comply with sections: 5-4-1; 5-4-2, 5-4-3, 5-4-4, 5-4-5, 5-4-6, 5-4-7, and 5-4-8.

U101.4 Building permit fee. A fee for each building permit as set forth in section 5-7-3 of chapter 5, shall be paid to the building official.

U101.5 Insignia of approval.

(a) Factory-built housing manufactured in this County which is sold or offered for sale to first users within this County shall bear the insignia of approval issued by the building official indicating that the factory-built housing is in compliance with this article.
(b) Factory-built housing manufactured outside the County shall bear the insignia of approval issued by any governmental or inspectional agency approved by the building official.

U101.6 Performance of building, electrical, and plumbing work.

(a) All building, electrical, and plumbing work performed within the State of Hawai‘i shall comply with State of Hawai‘i contracting and licensing laws and regulations.

(b) All building, electrical, and plumbing work to be performed at the factory outside of this state must be accomplished:

1. Under the supervision of a licensed building contractor, licensed supervising electrician, or master plumber, respectively, of the state in which the factory is located, if the manufacturer submits a quality control manual which is approved by the building official; or
2. By licensed building contractors, electricians, or plumbers, respectively, of the state in which the factory is located.

U101.7 Inspections.

(a) Each and every factory-built housing manufactured outside of this County shall be inspected by a governmental or inspectional agency approved by the building official in conformance with the quality assurance standards approved by the building official and in compliance with County of Hawai‘i codes and regulations.

(b) All manufacturing work, including building, electrical, and plumbing, shall be inspected in the factory by the building official to ensure compliance with the requirements of the construction code. It shall be the duty of the permit holder or their agent, to cause the work to remain accessible and exposed for inspection purposes. All inspections of factory-built housing shall comply with sections 5-8-1, 5-8-2, 5-8-3, 5-8-4, 5-8-5, 5-8-6, and 5-8-7.

U101.8 Manufacturer’s label.

(a) Each and every factory-built housing manufactured outside of this County shall have a manufacturer’s label on a metal plate showing the manufacturer’s name, serial number of the building, manufacture date, design load criteria, and an inspection stamp by a governmental or inspectional agency approved by the building official securely fastened on the factory-built housing;

(b) Each and every factory-built housing manufactured in the County of Hawai‘i shall have a manufacturer’s label on a metal plate showing the manufacturer’s name, serial number of the building, manufacture date, design load criteria, and building official inspection stamp securely fastened on the factory-built housing.

U101.9 Transporting factory-built housing. The transportation of factory-built housing shall be governed by the provisions of the County and State traffic codes."

(2021, ord 21-61, sec 1.)

Article 4. Building Work Within Special Flood Hazard Areas.

Section 5B-4-1. General applicability.

(a) The provisions of this article shall apply to new construction or the renovation and major alteration, addition, or reinstallation of any existing buildings or structures, within a special flood hazard area as identified by chapter 27, Hawaiʻi County Code. Such construction work shall comply with chapter 16 of the International Building Code, and chapter 27, Floodplain Management.

(b) The provisions of this article shall not apply to the following:
   (1) Any building or structure exempted from chapter 27;
   (2) Any building or structure which has been granted a flood control variance pursuant to article 5, chapter 27; or
   (3) Any building or structure lawfully existing prior to November 8, 1993, subject to the provisions of chapter 27.

(2021, ord 21-61, sec 1.)

Section 5B-4-2. Definitions.

As used in this article, unless it is apparent from the context that a different meaning is intended:

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

"Flood or flooding" means:

(1) A general and temporary condition of partial or complete inundation of normally dry land areas from:
   (A) The overflow of inland or tidal waters;
   (B) The unusual and rapid accumulation or runoff of surface waters from any source; or
   (C) Mudslides (i.e., mudflows) which are approximately caused by flooding as defined in paragraph (1)(B) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current; or

(2) 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 paragraph (1)(A) of this definition.

"Special flood hazard area" means an area having special flood or flood-related erosion hazards, and shown on the Flood Insurance Rate Maps as Zones A, AO, AE, A99, AH, VE, or V.

"Water-tight" when referring to construction below the inundation level, means constructed to exclude moisture and withstand the hydraulic pressure resulting from the anticipated depth of inundation.
(2021, ord 21-61, sec 1.)

Section 5B-4-3. General Requirements.

Contractor will provide a certified flood zone elevation mark on jobsite for flood zone elevation reference point.
(2021, ord 21-61, sec 1.)

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