

## **CHAPTER 17**

### **PLUMBING**

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**CHAPTER 17****PLUMBING****Article 1. General Provisions.****Section 17-1. Title and purpose.**

- (a) This chapter shall be known as the “plumbing code,” may be cited as such, and will be referred to herein as “this code.”
- (b) The purpose of this code is to provide for the protection of the public health and safety by establishing minimum regulations for the installation, alteration, or repair of plumbing, gas, and drainage systems and the inspection thereof.  
(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 1.)

**Section 17-2. Scope.**

The provisions of this code shall apply to all new construction, relocated buildings, and to any alterations, repairs, or reconstruction within the property lines of the premises, except as provided for otherwise in this code.  
(2007, ord 07-84, sec 2.)

**Section 17-3. Definitions.**

As used in this code, unless otherwise specified:

“Authority having jurisdiction” means the director of the department of public works, or the director’s authorized representative(s).

“Assistant” means the authorized representative(s) of the authority having jurisdiction.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, secs 2 and 8.)

**Section 17-4. Reference to the Uniform Plumbing Code; conflicting provisions.**

If any provisions of this code conflict with or contravene provisions of the Uniform Plumbing Code 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 that provision.

(2007, ord 07-84, sec 2.)

**Article 2. Administration and Enforcement.****Division 1. Administration.****Section 17-7. Department having jurisdiction.**

Unless otherwise provided for by law, the department of public works shall have jurisdiction over and administer all matters covered by this code.

(2007, ord 07-84, sec 2.)

**Section 17-8. Duties of the authority having jurisdiction.**

The authority having jurisdiction shall maintain public office hours necessary to efficiently administer the provisions of this code and amendments thereto and shall perform the following duties:

- (1) Require submission of, examine, and check plans and specifications, drawings, descriptions, and diagrams necessary to show clearly the character, kind, and extent of work covered by applications for a permit, and upon approval, shall issue the permit applied for;
  - (2) Administer and enforce the provisions of this code in a manner consistent with the intent thereof and shall inspect all plumbing and drainage work authorized by any permit to assure compliance with provisions of this code or amendments thereto, approving or condemning said work in whole or in part as conditions require;
  - (3) Issue upon request a certificate of approval for any work approved by the authority having jurisdiction;
  - (4) Condemn and reject all work done or being done or materials used or being used which do not in all respects comply with the provisions of this code and amendments thereto;
  - (5) Order changes in workmanship and materials essential to obtain compliance with all provisions of this code;
  - (6) Investigate any construction or work regulated by this code and issue such notices and orders as provided in this code; and
  - (7) Keep a complete record of all essential transactions.
- (2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-9. Compliance with this code and other laws.**

Any approval or permit issued pursuant to the provisions of this code shall comply with all applicable requirements of this code. The granting of a permit or variance under this code does not dispense with the necessity to comply with any law, ordinance, regulation or any other provision of the Hawai'i County Code to which a permittee may also be subject.

(2007, ord 07-84, sec 2.)

**Section 17-10. Adoption of rules.**

The authority having jurisdiction may adopt rules pursuant to chapter 91, Hawai'i Revised Statutes, necessary for the purposes of this code.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-11. Right of entry.**

Upon presentation of proper credentials, the authority having jurisdiction or such person's assistants may enter at reasonable times any building, or premises in the County to perform any duty imposed by this code, provided that such entry shall be made in such a manner as to cause the least possible inconvenience to the persons in possession. An order of a court authorizing such entry shall be obtained in the event such entry is denied or resisted.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-12. Limited liability of authorized personnel.**

The authorized personnel charged with the enforcement of this code, acting in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance shall not thereby be rendered personally liable for damages that may accrue to persons or property as a result of an act or by reason of an act or omission in the discharge of such duties. A suit brought against the authorized personnel because of such act or omission performed by the authorized personnel in the enforcement of any provision of this code or other pertinent laws or ordinances implemented through the enforcement of this code shall be defended by the County until final termination of such proceedings, and any judgment resulting therefrom shall be assumed by the County.

(2007, ord 07-84, sec 2.)

**Section 17-13. Nonliability of the County or its employee for damages.**

- (a) This chapter shall not be construed to relieve from or lessen the responsibility of such person owning, operating or installing any plumbing, gas, or drainage systems for damages to anyone injured by any defect therein.
- (b) Neither the County nor any department, board, commission, officer, employee, or the authority having jurisdiction shall be held liable or responsible for any damage or injury caused by or resulting from the issuance of any permit issued, or any inspection or approval or issuance of a certificate of inspection, made under the provisions of this chapter.
- (c) The authorized personnel charged with the enforcement of this code, acting in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance shall not thereby be rendered personally liable for damages that may accrue to persons or property as a result of an act or by reason of an act or omission in the discharge of such duties. A suit brought against the authorized personnel because of such act or omission performed by the authorized personnel in the enforcement of any provision of this code or other pertinent laws or ordinances implemented through the enforcement of this code shall be defended by the County until final termination of such proceedings, and any judgment resulting there shall be assumed by the County.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 3; ord 11-121, sec 1.)

**Division 2. Permits.****Section 17-15. Permit required.**

- (a) It shall be unlawful for any person to install, remove, alter, repair or replace or cause to be installed, removed, altered, repaired or replaced any plumbing, gas or drainage piping work or any fixture or water heating or treating equipment in a building or premises without first obtaining a permit to do such work from the authority having jurisdiction.
- (b) A separate permit shall be obtained for each building or structure.
- (c) No person shall allow any other person to do or cause to be done any work under a permit secured by a permittee except individuals in such permittee's employ.
- (d) Plumbing permits shall be posted in a conspicuous place on the job site. Permits shall remain posted until the plumbing work has passed a final inspection by the authority having jurisdiction. Failure to comply with this provision shall subject the violator to a \$25 fine.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-16. Work not requiring permit.**

- (a) No permit shall be required in the case of any repair work as follows: the stopping of leaks in drains, soil, waste or vent pipe, provided, however, that should any trap, drainpipe, soil, waste or vent pipe be or become defective and it becomes necessary to remove and replace the same with new material in any part or parts, the same shall be considered as such new work and a permit shall be procured and inspection made as provided in this code. No permit shall be required for the clearing of stoppages or the repairing of leaks in pipes, valves, or fixtures, when such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.
- (b) No permit shall be required in the case of any replacement work for the following: the replacement or repair of disposals, faucets and fixtures, to include sinks and water closets, for non-commercial residential and County government occupancies only. Permits however shall be required when such repairs do involve or require the replacement or rearrangement of valves or pipes. All repair or replacement work shall be done by licensed plumbers in accordance with section 444, Hawai'i Revised Statutes.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 4; ord 11-121, sec 2.)

**Section 17-17. Persons to whom permits may be issued.**

- (a) Except as provided in subsection (b) of this section, no permit shall be issued to any person to do or cause to be done any work regulated by this code, except to a person holding a valid, unexpired, and unrevoked "Plumbing Contractor's License" as provided for in chapter 444, Hawai'i Revised Statutes, or to the representative of a gas utility.

- (b) A permit may also be issued to a home owner for plumbing work on a single-family dwelling which the owner will personally occupy and use exclusively for living purposes, provided the owner is a person licensed under chapter 448E, Hawai'i Revised Statutes. Only one such permit may be issued to such a home owner, unless the authority having jurisdiction finds that strict application would result in practical difficulty and hardship and that the granting of a second permit would not be contrary to the purpose of the code. This does not preclude the home owner from obtaining additional permits for the same building or accessory building on the same lot.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-18. Application for permit.**

- (a) Application. Any person legally entitled to apply for and receive a permit shall make such application on forms provided for that purpose. Such person shall give a description of the character of work proposed to be done, and the location, tax map key, ownership, occupancy, and use of the premises in connection therewith. The authority having jurisdiction may require plans, specifications, or drawings and such other information as the authority having jurisdiction may deem necessary. Appropriate permit application fees, as set out in section 17-28, shall be submitted with the permit application.
- (b) Plans Required. Plumbing permit applications shall be accompanied by three sets of plans for approval by the authority having jurisdiction. Two sets shall be retained by the authority having jurisdiction and the other set shall be returned to the applicant, which shall be kept at such building or site whenever work authorized is in progress. Other plans, drawings, or specifications may be required as indicated under subsection (a). Plans are not required for one and two-family dwelling units. The authority having jurisdiction may waive the requirement for submission of plans for other occupancies when deemed unnecessary. The approval of plans by an architect or engineer, licensed with the State of Hawai'i, shall be according to State statutes and when required by the authority having jurisdiction as indicated under subsection (a).
- (c) Issuance. If the authority having jurisdiction determines that the plans, specifications, drawings, descriptions, or information furnished by the applicant are in compliance with this code, the authority having jurisdiction shall issue the permit applied for upon payment of the required fee. The plumbing permit card shall be posted in a conspicuous place at the job site during construction.

- (d) **Validity.** The issuance or granting of a permit or approval of plans and specifications shall not be construed to be a permit for or an approval of, violations of the provisions of this code, or other State or County laws, including rules and regulations. No permit presuming to give authority to violate or cancel the provisions of this code, or other State or County laws, including rules and regulations, shall be valid, except insofar as the work or use, which it authorizes is lawful. The issuance of a permit based upon plans and specifications shall not prevent the authority having jurisdiction from thereafter requiring the correction of errors in the plans and specifications or from preventing any plumbing work being carried on under that permit when in violation of this code, or other State or County laws, including rules and regulations, or from revoking any certificate of approval when issued in error.
- (e) **Expiration.** Every permit issued by the authority having jurisdiction under the provisions of this code shall expire by limitation and become null and void, if the work authorized by such permit is not commenced within one hundred twenty days from the date of issuance, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of one hundred twenty days; provided, however, that a permit issued for work on construction having a valid building permit, shall expire only when such building permit expires.
- Where a permit expires, before work can be recommenced, a new permit shall be obtained, and the fee shall be one-half the amount required for a new permit, provided no changes have been made or will be made to the original plans and specifications of such work; and provided, further, that the suspension or abandonment has not exceeded one year.
- (f) **Suspension or Revocation.** The authority having jurisdiction may, in writing, suspend or revoke a permit issued under provisions of this code whenever the permit is issued in error, or on the basis of incorrect information supplied, or in violation of any ordinance or regulation or any of the provisions of this code.
- (g) **Refunds.** Refunds of permit fees shall be made in accordance with the provisions of section 2-12.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-19. Amnesty period.**

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 5; ord 11-121, sec 3.)



**Division 3. Qualifications of Persons Performing Work.****Section 17-21. General provisions.**

- (a) It shall be unlawful for any person to perform any work covered by this code in violation of those provisions of chapter 448E, Hawai'i Revised Statutes, relating to the licensing of electricians and plumbers.
  - (b) Unlicensed persons may perform work covered by this code providing such work performance is not in violation of chapter 444, Hawai'i Revised Statutes.
- (2007, ord 07-84, sec 2.)

**Division 4. Inspections.****Section 17-24. Inspection required.**

- (a) All plumbing, gas, and drainage systems shall be inspected by the authority having jurisdiction to ensure compliance with all the requirements of this code. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of any other ordinance. Inspections presuming to give authority to violate or cancel the provisions of this code or of any other ordinance shall not be valid.
  - (b) It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the authority having jurisdiction nor the County shall be liable for any expense entailed in the removal or replacement of any material required to perform the inspection.
- (2007, ord 07-84, sec 2; am 2011, ord 11-70, secs 6 and 8.)

**Section 17-25. Notification to authority having jurisdiction that work is ready for inspection.**

- (a) It shall be the duty of the person doing the work authorized by the permit to notify the authority having jurisdiction orally or in writing, that said work is ready for inspection. The authority having jurisdiction may require that every request for inspection be filed and ready at least forty-eight hours before such inspection is desired. Such request may be in writing or by phone at the option of the authority having jurisdiction.
- (b) It shall be the duty of the person doing the work authorized by the permit, to make sure that the work will stand the tests prescribed elsewhere in this code, before giving the above notification.
- (c) It shall be the duty of the person requesting any inspections required by this code to provide access to and means for proper inspection of such work.
- (d) Whenever any work regulated by this chapter, or any portion thereof, is ready for inspection, the authority having jurisdiction shall be notified by the permit holder that same is ready for inspection. The notice shall be in writing on forms furnished by the authority having jurisdiction, by e-mail to the area inspectors or may be faxed or by telephone at the option of the authority having jurisdiction. The notice shall be filed with the department not less than forty-eight hours and not more than seventy-two hours before any such inspection is desired.

- (e) The authority having jurisdiction shall proceed to inspect the same or notify the contractor of a reschedule within forty-eight hours, not including weekends or holidays, after receipt of such notice. When work conforms in all respects with the provisions of this chapter, a notice granting authority to proceed with installations shall be given.
- (f) No plumbing work shall be covered or concealed until forty-eight hours have expired after the scheduled inspection or until the authority having jurisdiction has approved the installation and given permission to cover or conceal the same. If the permitted work is covered or concealed without inspection, the plumbing contractor will provide verification that the concealed work complies with all the provisions of this chapter. Should the authority having jurisdiction condemn any of said work or equipment as not being in accordance with the provisions of this chapter, notice in writing to that effect shall be given to the permit holder engaged in the work or posted at the job site.
- (g) Within a reasonable time thereafter, the work or equipment shall be altered or removed as required, and necessary changes shall be made so that all such work and equipment may fully comply with the provisions of this chapter before further work is connected on or with the condemned work or equipment. In default, the plumbing contractor shall be liable to the penalties provided in this chapter, and any and every owner, contractor or other person engaged in construction of the building or structure, or otherwise, covering or allowing to be covered such portion of work or equipment, or removing any notice not to cover same placed thereon by the authority having jurisdiction shall likewise be liable to the penalties provided for in this chapter.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, secs 7 and 8.)

**Division 5. Fees.**

**Section 17-28. Permit fees.**

- (a) Schedule of Fees
  - (1) Permit application fee .....\$10
  - (2) In addition:
    - For each plumbing fixture or trap (including drainage and vent piping) ..... \$ 4
    - For installation, alteration, or repair of each building sewer, building drain, or vent piping.....\$20
    - For each industrial waste injector, grease interceptor, sewage ejector, and grinder pump, including its trap and vent .....\$12
    - For installation, alteration, or repair of water piping and/or water treating equipment .....\$ 4
    - For vacuum breakers or backflow protective devices installed subsequent to the installation of the piping or equipment served .....\$12
    - For each lawn sprinkler system on any one valve including backflow protection devices thereof.....\$12
    - For each electric water heater, solar or gas water heater, and/or vent .....\$ 4
    - For each new installation, alteration, or repairing of gas piping systems, house piping, and/or exterior piping for lamps, luau torches, and other miscellaneous equipment .....\$12
    - For each gas appliance .....\$ 4
    - For each medical gas piping serving one to five inlet(s) or outlet(s) for a specific gas .....\$50
    - For each additional medical gas inlet(s) or outlet(s) .....\$ 4
- (b) Where work for which a permit is required by this code is begun prior to obtaining a permit, the application fee shall be \$100 plus the additional fees specified in subsection (a). Payment of such fees shall not relieve any person, firm, or corporation from the obligation to comply with the requirements of this code.
 

This provision shall not apply to emergency work performed under circumstances that did not allow time to obtain a permit. To qualify for this exception, it must be proved to the satisfaction of the authority having jurisdiction that the unpermitted work was urgently necessary and that it was not practical to obtain a permit therefore before the commencement of the work. In all such cases a permit must be obtained as soon as it is practical to do so. Any delay in obtaining a permit as soon as it is practical to do so will subject the petitioner to the doubled permit fees.

- (c) The County and all agencies and contractors doing County jobs shall be exempt from the requirement to pay any permit fee except for fees imposed pursuant to subsection (b), when applicable.
  - (d) Habitat for Humanity Hilo and Habitat for Humanity Kona shall be exempt from the requirement of paying any permit fee, except for fees imposed pursuant to subsection (b), when applicable. This exemption shall not apply to penalty fees when required under this chapter.
- (2007, ord 07-84, sec 2; am 2007, ord 07-113, sec 4; am 2011, ord 11-70, sec 8.)

**Section 17-29. Inspection fees.**

- (a) A fee of \$50 shall be assessed upon the permittee or requestor for each extra inspection made. "Extra inspection" means a requested or scheduled inspection wherein the work to be inspected is not complete or ready for inspection.
  - (b) A fee of \$50 shall be assessed upon the requestor or property owner for each courtesy inspection made. "Courtesy inspection" means a requested inspection wherein no permit has been issued or for general requirements regarding the health, safety, or welfare of people.
  - (c) The authority having jurisdiction has the authority to waive inspection fees.
- (2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Division 6. Violations, Enforcement, and Penalties.**

**Section 17-32. General provisions.**

- (a) It is unlawful for any person, firm, or corporation to install, alter, repair, remove, replace, or maintain any plumbing, gas or drainage piping work or any fixture, gas appliance or water heating or treating equipment, or cause or permit the same to be done, in violation of this code.
  - (b) Failure to comply with any provision of this code, any rule adopted pursuant to this code, or with conditions imposed as part of any permit or variance from the provisions of this code, shall constitute a violation of this code.
- (2007, ord 07-84, sec 2.)

**Section 17-33. Notice of violation.**

Whenever any person, firm or corporation violates any provision of this code, the authority having jurisdiction shall serve a notice of violation upon the parties responsible for the violation, including but not limited to the owner/lessee of the property where the violation is located, to make the building or structure or portion thereof comply with the requirements of this code. Such notice of violation shall include:

- (1) The date of the notice;
- (2) The name and address of the person noticed, and the location of the violation;
- (3) The section number of the ordinance, code or rule which has been violated;
- (4) The nature of the violation; and
- (5) The deadline for compliance with the notice.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-34. Administrative enforcement.**

- (a) If the authority having jurisdiction determines that any person, firm or corporation is not complying with a notice of violation, the authority having jurisdiction may have the party responsible for the violation served, by mail or delivery, with an order pursuant to this division.
- (b) Contents of the Order.
  - (1) The order may require the parties responsible for the violation, including but not limited to the owner/lessee of the property where the violation is located, to do any or all of the following:
    - (A) Correct the violation within the time specified in the order;
    - (B) Pay a civil fine not to exceed \$1,000 in the manner, at the place and before the date specified in the order;
    - (C) Pay a civil fine not to exceed \$1,000 per day for each day in which the violation persists, in the manner and at the time and place specified in the order.
  - (2) The order shall advise the party responsible for the violation that the order shall become final thirty calendar days after the date of its delivery. The order shall also advise that the authority having jurisdiction's action may be appealed to the board of appeals.
- (c) Effect of Order; Right to Appeal. The provisions of the order issued by the authority having jurisdiction under this section shall become final thirty calendar days after the date of the delivery of the order. The party responsible for the violation may appeal the order to the board of appeals as provided by section 5-1.0.5\*, Hawai'i County Building Code (chapter 5). The appeal must be received in writing on or before the date the order becomes final. However, an appeal to the board of appeals shall not stay any provision of the order.
- (d) Judicial Enforcement of Order. The authority having jurisdiction may institute a civil action in any court of competent jurisdiction for the enforcement of any final order issued pursuant to this section. Where the civil action has been instituted to enforce the civil fine imposed by such final order, the authority having jurisdiction need only show that the notice of violation and order were served, that a civil fine was imposed, the amount of the civil fine imposed and that the fine imposed has not been paid.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**\*Editor's Note:** Section 5-1.0.5 was repealed. See section 5-67.

**Section 17-35. Criminal prosecution.**

- (a) General Provisions. Any person, firm or corporation violating any of the provisions of this code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any provisions of this code is committed, continued or permitted; and upon conviction of any such violation, such person shall be punishable by a fine of not more than \$1,000, or by imprisonment for not more than one year, or by both fine and imprisonment.
- (b) Any officer or inspector designated by the authority having jurisdiction, who has been deputized by the chief of police as a special officer for the purpose of enforcing the provisions of the building, plumbing, electrical or housing codes (hereinafter referred to as “authorized personnel”), may arrest without warrant alleged violators by issuing a summons or citation in accordance with the procedure specified in this section. Nothing in this section shall be construed as barring such authorized personnel from initiating prosecution by warrant or such other judicial process as is permitted by statute or rule of court.
- (c) Any authorized personnel designated by the authority having jurisdiction, upon making an arrest for a violation of the building, plumbing, electrical or housing codes, may take the name and address of the alleged violator and shall issue to the violator in writing a summons or citation hereinafter described, notifying the violator to answer the complaint to be entered against the violator at a place and at a time provided in the summons or citation.
- (d) There shall be provided for use by authorized personnel a form of summons or citation for use in citing violators of the building, plumbing, electrical or housing codes which does not mandate the physical arrest of such violators. The form and content of such summons or citation shall be as adopted or prescribed by the administrative judge of the district court and shall be printed on a form commensurate with the form of other summonses or citations used in modern methods of arrest, so designed to include all necessary information to make the same valid within the laws and regulations of the State of Hawai‘i and County of Hawai‘i.
- (e) In every case when a citation is issued, the original of the same shall be given to the violator; provided, that the administrative judge of the district court may prescribe by giving to the violator a copy of the citation and provide for the disposition of the original and any other copies.
- (f) Every citation shall be consecutively numbered and each copy shall bear the number of its respective original.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-36. Injunctive action.**

The County of Hawai‘i may maintain an action for an injunction to restrain or remedy any violation of the provisions of this code and may take any other lawful action to prevent or remedy any violation.

(2007, ord 07-84, sec 2.)

**Section 17-37. Dangerous and insanitary construction.**

- (a) Any portion of a plumbing system found by the authority having jurisdiction to be insanitary as defined herein is hereby declared to be a nuisance. "Insanitary" means a condition which is contrary to sanitary principles or is injurious to health. Conditions to which "insanitary" shall apply include, but are not limited to, the following:
- (1) Any trap which does not maintain a proper trap seal.
  - (2) Any opening in a drainage system, except where lawful, which is not provided with an approved water-sealed trap.
  - (3) Any plumbing fixture or other waste discharging receptacle or device, which is not supplied with water sufficient to flush it and maintain it in a clean condition.
  - (4) Any defective fixture, trap, pipe, or fitting.
  - (5) Any trap directly connected to a drainage system, the seal of which is not protected against siphonage and back-pressure by a vent pipe, unless otherwise allowed by this code.
  - (6) Any connection, cross-connection, construction or condition, temporary or permanent, which would permit or make possible by any means whatsoever, for any unapproved foreign matter to enter a water distribution system used for domestic purposes.
  - (7) The foregoing enumeration of conditions to which the term "insanitary" shall apply, shall not preclude the application of that term to conditions that are, in fact, insanitary.
- (b) Upon determining that any construction or work regulated by this code is dangerous, unsafe, insanitary, a nuisance or a menace to life, health or property, or otherwise in violation of this code, the authority having jurisdiction may order any person, firm or corporation using or maintaining any such condition or responsible for the use or maintenance thereof to discontinue the use or maintenance thereof or to repair, alter, change, remove, or demolish same as may be considered necessary for the proper protection of life, health, or property. In the case of any gas piping or gas appliance, the authority having jurisdiction may order any person, firm, or corporation, supplying gas to such piping or appliance, to discontinue supplying gas thereto, until such piping or appliance is made safe with respect to life, health, or property.
- Every such order shall be in writing, addressed to the owner, agent, or person responsible for the premises in which such conditions exists, and shall specify the date or time for compliance with such order.

- (c) Refusal, failure, or neglect to comply with any such notice or order shall be considered a violation of this code.
  - (d) When any plumbing system is maintained in violation of this code and in violation of any notice issued pursuant to the provisions of this section, or where a nuisance exists in any building or on a lot on which a building is situated, the authority having jurisdiction may institute any appropriate action or proceeding in any court of competent jurisdiction to prevent, restrain, correct, or abate the violation or nuisance.
- (2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-38. Remedies cumulative.**

The remedies provided in this code shall be cumulative and not exclusive.  
(2007, ord 07-84, sec 2.)

**Division 7. Variances and Appeals.**

**Section 17-41. Variances.**

Whenever strict application of any provision of this code, except for the provisions relating to materials, methods of construction, equipment, fixtures, devices, or appliances, would result in practical difficulty or unnecessary hardship that would deprive the owner of the reasonable use of the land or building involved, the owner may petition the board of appeals for a variance from the provision. In granting a variance, the board of appeals shall prescribe any conditions that it deems to be necessary or desirable. No variance from the strict application of this code shall be granted by the board of appeals unless it finds that all of the following are present:

- (1) That there are special circumstances or conditions applying to the land or building for which the variance is sought, which circumstances or conditions are peculiar to such land or building and do not apply generally to lands or buildings in the neighborhood or surrounding property, and that the circumstances or conditions are such that the strict application of the provisions of this code would deprive the applicant of the reasonable use of the land or building;
- (2) That the granting of the variance is necessary for the reasonable use of the land or building and that the variance granted is the minimum variance that will accomplish this purpose; and
- (3) That the granting of the variance will be consistent with the intent and purpose of this code, and will not be injurious to persons or property, will not create additional fire hazards, and otherwise will not be detrimental to the public welfare. In making its determination, the board of appeals shall take into account the character, use and type of occupancy and construction of adjoining buildings, buildings on adjoining lots, and the building or land involved.

(2007, ord 07-84, sec 2.)



**Section 17-42. Appeals regarding alternative materials and methods of construction.**

Any person denied the use of new or alternate materials, methods of construction, equipment, fixtures, devices, or appliances by the authority having jurisdiction, may, within thirty days after the authority having jurisdiction's decision, appeal the decision to the board of appeals. In considering an appeal, the board may require any reasonable test of the proposed material, method of construction, equipment, fixture, device, or appliance, and the appellant shall pay all expenses necessary for the test. The board of appeals may affirm the decision of the authority having jurisdiction or it may reverse the decision if it finds:

- (1) That the new or alternate materials, methods of construction, equipment, fixtures, devices, or appliances meet standards established by this code;
- (2) That permitting the requested use will not jeopardize the safety of persons or property; and
- (3) That the requested use will not be contrary to the intent and purpose of this code.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-43. Other appeals.**

(a) Any person aggrieved by the decision of the authority having jurisdiction in the administration or application of this code, other than that prescribed in sections 17-41 and 17-42, may, within thirty days after the date of the authority having jurisdiction's decision, appeal the decision to the board of appeals. The board of appeals may affirm the decision of the authority having jurisdiction, or it may reverse or modify the decision if the decision is:

- (1) In violation of this code or other applicable law;
- (2) Clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record; or
- (3) Arbitrary, or capricious, or characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

(2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-44. Rules; adoption by board of appeals.**

The board of appeals shall adopt rules pursuant to chapter 91, Hawai'i Revised Statutes, necessary for the purposes of this article.

(2007, ord 07-84, sec 2.)

**Article 3. Installation Requirements.****Section 17-47. Uniform Plumbing Code adopted.**

The “International Association of Plumbing and Mechanical Officials Uniform Plumbing Code, 2006 Edition,” published by the International Association of Plumbing and Mechanical Officials, 5001 E. Philadelphia Street, Ontario, California 91761-2816, including appendices, is adopted by reference and made a part of this code. This incorporation by reference includes all parts of the Uniform Plumbing Code, except for part 1, relating to Administration, and is subject to the amendments hereinafter set forth.

- (1) Amending Section 204.0. Section 204.0 is amended by amending the definition of “Building Drain” to read:

“Building Drain – That part of the lowest piping of a drainage system that receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer beginning five (5) feet (1524 mm) outside the building wall.”
- (2) Adding a new definition to Section 205.0. A definition of “Control Valve (Water)” is added to read:

“Control Valve (Water) – A control valve is any type of valve which can change the flow rate of water, which includes compression stop valves.”
- (3) Adding a new definition to Section 210.0. A definition of “Health Officer” is added to read:

“Health Officer – Health Officer shall mean the Director of Health of the Department of Health, State of Hawai‘i, or the Director’s authorized agent.”
- (4) Adding a new definition to Section 221.0. A definition of “Single-Stack System” is added to read:

“Single-Stack System – A specially designed plumbing system wherein a common stack serves as a drainage pipe as well as a vent pipe.”
- (5) Adding Section 314.8. Section 314.8 is added to read:

“**314.8 Seismic Supports.** Where earthquake loads are applicable in accordance with the building code, plumbing piping supports shall be designed and installed for the seismic forces in accordance with the building code.”

- (6) Deleting Section 412.0, Table 4-1 and Table A. Section 412.0, Table 4-1 and Table A are deleted in their entirety, and replaced to read:

**“412.0 Minimum Number of Required Fixtures.**

Plumbing fixtures shall be provided for the type of building occupancy and in the minimum number required in Chapter 29 of the International Building Code.”

- (7) Amending Section 715.1. Section 715.1 is amended to read:

**“715.1** The building sewer, beginning five (5) feet (1524 mm) from any building or structure, shall be of such materials as prescribed in this code.”

- (8) Adding Section 911.0. Section 911.0 is added to read:

**“911.0 Single Stack System.** When approved by the authority having jurisdiction, a single-stack system based on engineered studies and tests may be used in lieu of other related provisions in this code. Plans and specifications of such systems shall be prepared and stamped by a State of Hawai‘i licensed mechanical engineer.”

- (9) Amending Section 1101.11.1. Section 1101.11.1 is amended to read:

**“1101.11.1 Primary Roof Drainage.** Roof areas of a building shall be drained by roof drains or gutters. The location and sizing of drains and gutters shall be coordinated with the structural design and pitch of the roof. Unless otherwise required by the authority having jurisdiction, roof drains, gutters, vertical conductors or leaders, and horizontal storm drains for primary drainage shall be sized based on a storm of sixty (60) minutes duration and 100-year return period. Refer to the National Weather Service rainfall map for 100-year, 60 minute storms at various locations.”

- (10) Amending Section 1301.1. Section 1301.1 is amended by adding two new sentences at the end to read:

“The provisions of Chapter 13 Health Care Facilities and Medical Gas and Vacuum Systems shall be used as REFERENCE ONLY, for the design and construction of medical gas and vacuum systems. This Chapter will not be regulated or enforced by the County of Hawai‘i. Responsibility shall be by the company and mechanical engineer who designs and sizes the system.”

- (11) Amending Section 1327.0 Testing and Inspection. Section 1327.0 is amended by replacing the term “Authority Having Jurisdiction” with “Certified Medical Gas System Verifier” (Individuals who have successfully passed a National Inspection Testing Certification Service competency examination in accordance with ASSE Series 6000 Standard, Section 6030) for all instances in Sections 1327.1 to 1327.15.
- (12) Amending Section 1601.0 (A). Section 1601.0 (A) is amended to read:
- “(A) The provisions of this chapter shall apply to the construction, alteration, and repair of gray water systems for underground landscape irrigation. Installations shall be allowed only in single-family dwellings or as allowed by the Health Officer. The system shall have no connection to any potable water system and shall not result in any surfacing of the gray water. Except as otherwise provided for in this chapter, the provisions of this code shall be applicable to gray water installation.”
- (13) Amending Section 1601.0 (D). Section 1601.0 (D) is amended to read:
- “(D) No permit or approval for any gray water system shall be issued until a plot plan with appropriate data or design plans satisfactory to the authority having jurisdiction has been submitted and approved for use. When there is insufficient lot area or inappropriate soil conditions for adequate absorption of the gray water, as determined by the authority having jurisdiction, no gray water system shall be permitted.”
- (14) Amending Section 1601.0 (E). Section 1601.0 (E) is amended to read:
- “(E) No permit or approval shall be issued for a gray water system on any property in a geologically sensitive area as determined by the Health Officer.”
- (15) Amending Section 1603.0. Section 1603.0 is amended to read:
- “**1603.0 Permit or Approval.** It shall be unlawful for any person to construct, install, or alter, or cause to be constructed, installed, or altered any gray water system in a building or on a premises without first obtaining a permit or approval to do such work from the Health Officer.”

- (16) Amending Section 1604.0. Section 1604.0 is amended by amending the opening paragraph to read:

**“1604.0 Drawings and Specifications.** The Health Officer may require any or all of the following information to be included with or in the plot plan before a permit or approval is issued for a gray water system, or at any time during the construction thereof:”

- (17) Amending Section 1604.0 (A). Section 1604.0 (A) is amended to read:

“(A) Plot plan drawn to scale and completely dimensioned, showing lot lines and structures, direction and approximate slope of surface, location of all present or proposed retaining walls, drainage channels, water supply lines, wells, paved areas and structures on the plot, number of bedrooms and plumbing fixtures in each structure, location of private sewage disposal system or building sewer connecting to the public sewer, and location of the proposed gray water system.”

- (18) Amending Section 1607.0. Section 1607.0 is amended to read:

**“1607.0 Required Area of Subsurface Irrigation/Disposal Fields** (See Figure 16-5.) The Health Officer may require that each valved zone shall have a minimum effective irrigation area in square feet as determined by Table 16-2 for the type of soil found in the excavation, based upon a calculation of estimated gray water discharge pursuant to Section 1606.0 of this chapter, or the size of the holding tank, whichever is larger. The area of the irrigation/disposal field shall be equal to the aggregate length of the perforated pipe sections within the valved zone multiplied the width of the proposed irrigation/ disposal field. Each proposed gray water system shall include at least three (3) valved zones, and each zone shall be in compliance with the provisions of the section. No excavation for an irrigation/disposal field shall extend within three (3) vertical feet of the highest known seasonal groundwater, nor to a depth where gray water may contaminate the groundwater or ocean water. The applicant shall supply evidence of groundwater depth to the satisfaction of the Health Officer.”

(19) Amending Section 1608.0. Section 1608.0 is amended to read:

**“1608.0 Determination of Maximum Absorption Capacity.**

(A) Wherever practicable, irrigation/disposal field size shall be computed from Table 16-2 and Table 16-3, or Water Demand based on Evapotranspiration (ET) data.

(B) In order to determine the absorption quantities of questionable soils other than those listed in Tables 16-2 and 16-3, the proposed site may be subjected to percolation tests acceptable to the authority having jurisdiction.

(C) When a percolation test is required, no gray water system shall be permitted if the test shows the absorption capacity of the soil is not acceptable as determined by the Health Officer or is less than eighty-three hundredths (0.83) gallons per square foot (33.8 L/m<sup>2</sup>) or more than five and twelve hundredths (5.12) gallons per square foot (208.5 L/m<sup>2</sup>) of leaching area per twenty-four (24) hours.

(D) The following formula can be used to estimate the square footage of landscape to be irrigated based on ET data:

$$LA = \frac{GW}{ET \times PF \times 0.62}$$

Where: GW = estimated gray water produced (gallons per week)

LA = landscaped area (ft<sup>2</sup>)

ET = evapotranspiration (inches per week)

PF = plant factor, based on climate and type of plants

0.62 = conversion factor (from inches of ET to gallons per week).”

(20) Amending Section 1611.0. Section 1611.0 is amended to read:

**“1611.0 Irrigation/Disposal Field Construction.** (See Figure 16-5.)

The Health Officer may permit subsurface drip irrigation, mini-leach field or other equivalent irrigation methods which discharge gray water in a manner which ensures that the gray water does not surface. Design Standards for subsurface drip irrigation systems and mini-leach field irrigation systems are as follows:

(A) Standards for a subsurface drip irrigation system:

- (1) Minimum 140 mesh (115 micron) filter with a capacity of 25 gallons per minute, or equivalent, filtration, sized appropriately to maintain the filtration rate, shall be used. The filter back-wash and flush discharge shall be caught, contained and disposed of to the sewer system, septic tank, or with approval of the authority having jurisdiction, a separate mini-leach field sized to accept all the back wash and flush discharge water. Filter backwash water and flush water shall not be used for any purpose. Sanitary procedures shall be followed when handling filter back-wash and flush discharge of gray water.
- (2) Emitters shall have a minimum flow path of 1200 microns and shall have a coefficient of manufacturing variation ( $C_v$ ) of no more than seven percent. Irrigation system design shall be such that the emitter flow variation shall not exceed plus or minus ten percent. Emitters shall be recommended by the manufacture for subsurface use and gray water use, and shall have demonstrated resistance to root intrusion.
- (3) Each irrigation zone shall be designed to include no less than the number of emitters specified in Table 16-3, or through a procedure designated by the Health Officer. Minimum spacing between emitters is 14 inches in any direction.
- (4) The system design shall provide user controls, such as valves, switches, timers, and other controllers as appropriate, to rotate the distribution of gray water between irrigation zones.

- (5) All drip irrigation supply lines shall be polyethylene tubing or PVC class 200 pipe or better and schedule 40 fittings. All joints shall be properly solvent-cemented, inspected and pressure tested at 40 psi, and shown to be drip tight for five minutes, before burial. All supply lines will be buried at least eight inches deep. Drip feeder lines can be poly or flexible PVC tubing and shall be covered to a minimum depth of nine inches.
  - (6) Where pressure at the discharge side of the pump exceeds 20 pounds per square inch (psi), a pressure reducing valve able to maintain downstream pressure no greater than 20 psi shall be installed downstream from the pump and before any emission device.
  - (7) Each irrigation zone shall include a flush valve/anti-siphon valve to prevent back siphonage of water and soil.
- (B) Standards for a mini-leach field system:
- (1) Perforated sections shall be a minimum three (3) inch (80 mm) diameter and shall be constructed of perforated high-density polyethylene pipe, perforated ABS pipe, perforated PVC pipe, or other approved materials, provided that sufficient openings are available for distribution of the gray water in to the trench area. Material, construction, and perforation of the pipe shall be in compliance with the appropriate absorption fields drainage piping standards and shall be approved by the Health Officer.



- (2) Filter material, clean stone, gravel, slag, or similar filter material acceptable to the authority having jurisdiction, varying in size from three-quarter (3/4) inch (20 mm) to two and one-half (2-1/2) inch (65 mm) shall be placed in the trench to the depth and grade required by this section. The perforated section shall be laid on the filter material in an approved manner. The perforated section shall then be covered with filter material to the minimum depth required by this section. The filter material shall then be covered with untreated building paper, straw, or similar porous material to prevent closure of voids with earth backfill. No earth backfill shall be placed over the filter material cover until after inspection and acceptance.”
- (21) Deleting Chart for Section 1611.0 (C). The corresponding chart for Section 1611.0 (C) is deleted.
- (22) Amending Section 1612.0 (A). Section 1612.0 (A) is amended to read:  
“(A) Other collection and distribution systems such as laundry only gray water systems may be approved by the local Health Officer.”
- (23) Amending Table 16-1. Table 16-1, Location of Gray Water Systems, is amended as follows:
- A) Deleted “100% expansion area” as relating to “Disposal Field.”
  - B) Changed the values for the following Irrigation/Disposal Field:
    - Building Structures
    - Water Supply Wells
    - Disposal Field

As amended, Table 16-1 shall read:

**“Table 16-1  
Location of Gray Water System**

<b>Minimum Horizontal Distance in Clear Required From:</b>	<b>Holding Tank Feet (mm)</b>	<b>Irrigation/Disposal Field Feet (mm)</b>
Building structures <sup>1</sup>	5 <sup>2</sup> (1,524 mm)	5 (1,524 mm)
Property line adjoining private property	5 (1,524 mm)	5 (1,524 mm)
Water supply wells <sup>3</sup>	50 (15,240 mm)	1000 (304,800 mm)
Streams and lakes <sup>3</sup>	50 (15,240 mm)	50 <sup>4</sup> (15,240 mm)
Sewage pits or cesspools	5 (1,524 mm)	5 (1,524 mm)
Disposal field	5 (1,524 mm)	5 (1,524 mm)
Septic tank	0 (0)	5 (1,524 mm)
On-site domestic water service line	5 (1,524 mm)	5 (1,524 mm)
Pressurized public water main	10 (3,048 mm)	10 <sup>5</sup> (3,048 mm)

Note: When irrigation/disposal fields are installed in sloping ground, the minimum horizontal distance between any part of the distribution system and the ground surface shall be fifteen (15) feet (4,572 mm).

<sup>1</sup> Including porches and steps, whether covered or uncovered, breezeways, roofed porte cocheres, roofed patios, carports, covered walks, covered driveways, and similar structures or appurtenances.

<sup>2</sup> The distance may be reduced to zero feet for aboveground tanks when first approved by the authority having jurisdiction.

<sup>3</sup> Where special hazards are involved, the distance required shall be increased as may be directed by the authority having jurisdiction.

<sup>4</sup> These minimum clear horizontal distances shall also apply between the irrigation/disposal field and the ocean mean higher hightide line.

<sup>5</sup> For parallel construction/for crossings, approval by the authority having jurisdiction shall be required.”

(24) Adding Table 16-3. A new Table 16-3 is added as follows:

**“Table 16-3  
Subsurface Drip Design Criteria for Six Typical Soils**

Type of Soil	Maximum Emitter Discharge (gal/day)	Minimum Number of Emitters per gdp of gray water production
Sand	1.8	0.6
Sandy loam	1.4	0.7
Loam	1.2	0.9
Clay loam	0.9	1.1
Silty Clay	0.6	1.6
Clay	0.5	2.0”

(25) Amending Section 1614.0. Section 1614.0 is amended to read:

**“1614.0 Definitions.**

Reclaimed water is water that, as a result of tertiary treatment of domestic wastewater, is at all times oxidized, then filtered, and then exposed, after the filtration process, to:

- (1) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least resistant to disinfection as polio virus may be used for purposes of demonstration; and
- (2) A disinfection process that limits the concentration of fecal coliform bacteria to the following criteria:
  - (i) The median density measure in the disinfected effluent does not exceed 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed; and

- (ii) The density does exceed 23 per 100 milliliters in more than one sample in any 30-day period; and
- (iii) No sample shall exceed 200 per 100 milliliters.

The level of treatment and quality of the reclaimed water shall be approved by the Department of Health.

Specifically excluded from this definition is gray water, which is defined in Part I of this chapter.

For the purposes of this section, the words “reclaimed” and “recycled” may be used interchangeably.”

- (26) Amending Section K1 (A). Appendix K is amended by adding at the end of Section K1 (A) the following:

“Construction plans for private sewage disposal systems shall be prepared by or under the supervision of a Hawai‘i licensed engineer registered in the State of Hawai‘i. All private sewage disposal systems shall be constructed or modified by a person meeting the requirements of chapter 444, Hawai‘i Revised Statutes and any pertinent rules promulgated by the department of commerce and consumer affairs, State of Hawai‘i.”

- (27) Amending Section K1 (E). Appendix K is amended by amending Section K1 (E) to read:

“(E) The lot area shall not be less than 10,000 square feet except for lots created and recorded before August 30, 1991. For lots less than 10,000 square feet which were created and recorded before August 20, 1991, only one private sewage disposal system shall be allowed. The total wastewater flow into one private sewage disposal system shall not exceed 1,000 gallons, and one private sewage disposal system shall not serve more than five bedrooms, whether they are in one dwelling unit or two. For buildings, other than dwellings with highly variable wastewater flow rates, such as but not limited to schools, parks, and churches, the private sewage disposal system may exceed a design flow rate of 1,000 gallons per day.”

- (28) Amending Section K1 (J). Appendix K is amended by adding at the end of Section K1 (J) the following:

“Aerobic systems shall be required for the direct disposal of sewage to groundwater.”

- (29) Amending Section K2. Appendix K is amended by amending Section K2 to read:

**“K2 Capacity of Septic Tanks.**

The liquid capacity of all septic tanks shall conform to Tables K-2 and K-3 as determined by the number of bedrooms in dwelling occupancies and the estimated waste/sewage design flow rate or the number of plumbing fixture units as determined from Table 7-3 of this Code, whichever is greater in other building occupancies. The capacity of any one septic tank and its drainage system shall be limited by the soil structure classification, as specified in Table K-4.”

- (30) Amending Section K3. Appendix K is amended by amending Section K3 to read:

**“K3 Area of Disposal Fields and Seepage Pits.**

The minimum effective absorption area in disposal fields in square feet (m<sup>2</sup>) of sidewall, shall be predicated on the required septic tank capacity in gallons (liters) and/or estimated waste/sewage flow rate, whichever is greater, and shall conform to Table K-4 as determined for the type of soil found in the excavation. The minimum effective absorption area could also be based upon a flow of 200 gallons per bedroom per day in accordance with Table K-6. Soil percolation tests shall be conducted at a minimum depth of three feet.”

- (31) Amending Section K4 (C). Appendix K is amended by amending the first sentence of Section K4 (C) to read:

“(C) When a percolation test is required, the test shall be conducted at a minimum depth of three feet, and no private disposal system shall be permitted to serve a building if that test shows the absorption capacity of the soil is less than 0.83 gallons per square foot (33.8 L/m<sup>2</sup>) or more than 5.12 gallons per square foot (208 L/m<sup>2</sup>) of leaching area per 24 hours.”

- (32) Amending Section K5 (N)(1). Appendix K is amended by amending Section K5 (N)(1) to read:

“(1) The septic tank shall be certified by IAPMO or a third party certification body accredited in accordance with ISO Guide 65, entitled “General Requirements for bodies operating product certification systems.””

- (33) Amending Section K7 (C). Appendix K is amended by amending the first sentence of Section K 7(C) to read:

“(C) Each seepage pit shall be circular in shape and shall have an excavated diameter of not less than six (6) feet (1,829 mm).”

- (34) Amending Table K-1. Appendix K is amended by amending Table K-1, Location of Sewage Disposal System, as follows:

The minimum horizontal distances are revised to be consistent with Hawai'i Administrative Rules Chapter 11-62 “Wastewater Systems” distances. The revision to Table K-1 is limited to increasing from 100 feet to 1,000 feet the minimum horizontal distance in clear from a water supply well to a disposal field.

As amended, Table K-1 shall read:

**“TABLE K-1  
Location of Sewage Disposal System**

<b>Minimum Horizontal Distance In Clear Required From:</b>	<b>Building Sewer</b>	<b>Septic Tank</b>	<b>Disposal Field</b>	<b>Seepage Pit or Cesspool</b>
Buildings or structures <sup>1</sup>	2 feet (610 mm)	5 feet (1,524 mm)	8 feet (2,438 mm)	8 feet (2,438 mm)
Property line adjoining private property	Clear <sup>2</sup>	5 feet (1,524 mm)	5 feet (1,524 mm)	8 feet (2,438 mm)
Water supply wells	50 feet <sup>3</sup> (15,240 mm)	50 feet (15,240 mm)	1,000 feet (304,800 mm)	150 feet (45.7 m)
Streams and other bodies of water	50 feet (15,240 mm)	50 feet (15,240 mm)	100 feet <sup>7</sup> (30,480 mm) <sup>7</sup>	150 feet <sup>7</sup> (45.7 m) <sup>7</sup>
Trees	-	10 feet (3,048 mm)	-	10 feet (3,048 mm)
Seepage pits or cesspools	-	5 feet (1,524 mm)	5 feet (1,524 mm)	12 feet (3,658 mm)
Disposal Field	-	5 feet (1,524 mm)	4 feet <sup>4</sup> (1,219 mm)	5 feet (1,524 mm)
On-site domestic water service line	1 foot <sup>5</sup> (305 mm)	5 feet (1,524 mm)	5 feet (1,524 mm)	5 feet (1,524 mm)
Distribution box	-	-	5 feet (1,524 mm)	5 feet (1,524 mm)
Pressure public water main	10 feet <sup>6</sup> (3,048 mm)	10 feet (3,048 mm)	10 feet (3,048 mm)	10 feet (3,048 mm)

Note: When disposal fields and/or seepage pits are installed in sloping ground, the minimum horizontal distance between any part of the leaching system and ground surface shall be fifteen (15) feet (4,572 mm).

- <sup>1</sup> Including porches and steps, whether covered or uncovered, breezeways, roofed porte cocheres, roofed patios, carports, covered walks, covered driveways, and similar structures or appurtenances.
- <sup>2</sup> See also Section 313.3 of the Uniform Plumbing Code.
- <sup>3</sup> All drainage piping shall clear domestic water supply wells by at least fifty (50) feet (15,240 mm). This distance may be reduced to not less than twenty-five (25) feet (7,620 mm) when the drainage piping is constructed of materials approved for use within a building.
- <sup>4</sup> Plus two (2) feet (610 mm) for each additional one (1) foot (305 mm) of depth in excess of one (1) foot (305 mm) below the bottom of the drain line. (See also Section K6.)
- <sup>5</sup> See Section 720.0 of the Uniform Plumbing Code.
- <sup>6</sup> For parallel construction - For crossings, approval by the Health Department shall be required.
- <sup>7</sup> These minimum clear horizontal distances shall also apply between disposal fields, seepage pits, and the mean high tide line.”

(35) Amending Table K-2. Appendix K is amended by amending Table K-2, Capacity of Septic Tanks, as follows:

A) Under column “Single-Family Dwellings-Number of Bedrooms,” delete “1 or 2 and 3” and replace with “4 or less”; also delete “or 6” from “5 or 6.”

B) Under column “Multiple Dwelling Units or Apartments-One Bedroom Each,” delete “3 through 10.”

C) Delete entire column “Other Uses: Maximum Fixture Units Served per Table 7-3.”

D) Under “Minimum Septic Tank Capacity in Gallons/Liters” delete the first two rows, amend the third and fourth rows, and delete rows five through eleven.

E) Delete “\*Note: Extra Bedroom, 150 gallons (568 liters) each. Extra dwelling units over 10: 250 gallons (946 liters) each. Extra fixture units over 100: 25 gallons (95 liters) per fixture unit.”

As amended, Table K-2 shall read:

**“TABLE K-2  
Capacity of Septic Tanks**

Single-Family Dwellings – Number of Bedrooms	Multiple Dwelling Units or Apartments – One Bedroom Each	Minimum Septic Tank Capacity in	
		Gallons	(Liters)
4 or less	--	1,000	(3,785)
5	2 units	1,250	(4,731)

Septic tank sizes in this table include sludge storage capacity and the connection of domestic food waste disposal units without further volume increase.”



- (36) Adding Table K-6. Appendix K is amended by adding a new Table K-6 as follows:

**“TABLE K-6  
Minimum Required Absorption Area**

<b>Percolation Rate (min/inch) Less than or equal to</b>	<b>Required Absorption Area (ft<sup>2</sup>/bedroom or 200 gallons)</b>	<b>Percolation Rate (min/inch) Less than or equal to</b>	<b>Required Absorption Area (ft<sup>2</sup>/bedroom or 200 gallons)</b>
1	70	31	253
2	85	32	257
3	100	33	260
4	115	34	263
5	125	35	267
6	133	36	270
7	141	37	273
8	149	38	277
9	157	39	280
10	165	40	283
11	170	41	287
12	175	42	290
13	180	43	293
14	185	44	297
15	190	45	300
16	194	46	302
17	198	47	304
18	202	48	306
19	206	49	308
20	210	50	310
21	214	51	312
22	218	52	314
23	222	53	316
24	226	54	318
25	230	55	320
26	234	56	322
27	238	57	324
28	242	58	326
29	246	59	328
30	250	60	330”

(2007, ord 07-84, sec 2; am 2011, ord 11-70, secs 9 and 10.)

**Article 4. Plumbing Work Within Special Flood Hazard Areas.****Section 17-50. General applicability.**

The provisions of this article shall apply to the construction of any new plumbing system, renovation and major alteration, addition, or reconstruction of existing plumbing system within any special flood hazard area as identified by chapter 27, Hawaii County Code.

(2007, ord 07-84, sec 2.)

**Section 17-51. Exemptions.**

The provisions of this article shall not apply to the following:

- (1) Any plumbing system serving a building or structure exempted from chapter 27, Hawaii County Code;
- (2) Any plumbing system serving a building or structure which has been granted a flood control variance pursuant to article 2, chapter 27, Hawaii County Code; or
- (3) Any plumbing system lawfully existing prior to November 8, 1993, subject to the provisions of chapter 27, Hawaii County Code.

(2007, ord 07-84, sec 2.)

**Section 17-52. Definitions.**

For the purpose of this article, the following words and terms are defined in the same manner as those words and terms are defined in section 27-12, Hawaii County Code:

- (1) Base flood elevation.
- (2) Flood or flooding.
- (3) Special flood hazard area.

(2007, ord 07-84, sec 2.)

**Section 17-53. Drainage (plumbing) systems.**

- (a) Drainage systems that have openings below the base flood elevation shall be provided with an automatic backwater valve installed in each discharge line passing through a building exterior wall, except backwater valves may be deleted if the fixture drainage openings are located at or above a floor level which is above the surrounding ground level.
- (b) Drainage systems for emergency servicing facilities that are required to remain in operation during a flood shall be provided with a sealed holding tank and the necessary isolation and diversion piping and appurtenances to withhold or postpone sewage discharge to the sewer system during the flood. The holding tank shall be sized for storage of at least one hundred fifty percent of the anticipated demand for a twenty-four hour period. Vents provided for such holding tank shall terminate at an elevation of at least one foot above the base flood elevation.

- (c) All pipes in a plumbing vent system shall terminate at an elevation of at least one foot above the base flood elevation.
  - (d) All pipe openings through exterior walls below the base flood elevation shall be floodproofed to prevent infiltration of flood water through spaces between pipes and wall construction materials by use of embedded collars, sleeves, waterstops, or other means as may be approved by the authority having jurisdiction.
- (2007, ord 07-84, sec 2; am 2011, ord 11-70, sec 8.)

**Section 17-54. Private sewage disposal/treatment.**

An individual private sewage disposal system or a treatment facility may be permitted in a special flood hazard area when the design and location of such system or facility is approved by the State department of health. In addition to complying with public health regulations and administrative rules of the State department of health, any such new or replacement sewage disposal system shall be designed to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.

(2007, ord 07-84, sec 2.)

**Section 17-55. Water supply systems.**

- (a) Potable water supply systems that are located in a special flood hazard area shall be designed and installed in such a manner as to prevent contamination from flood waters up to the base flood elevation. Location and construction of private water supply wells shall comply with rules and regulations of the department of water supply of the County of Hawai'i.
- (b) Potable water supply tanks, filters, softeners, heaters, and all water-supplied appliances and fixtures located below the base flood elevation shall be protected against contamination by covers, walls, copings, or castings. All vent pipes serving the water supply system shall terminate at an elevation of at least one foot above the base flood elevation.
- (c) Backflow preventers or devices approved by the department of water supply shall be installed on water service lines as close to the property control valve as possible to protect the public water system from backflow or back siphonage of flood waters or other contaminants in the event of a line break. Devices shall be installed at accessible locations and shall be maintained in good working condition by the owner. The backflow preventers or devices shall be subject to periodic testing as prescribed in the rules and regulations of the department of water supply.
- (d) An approved double-check valve assembly shall be used in lieu of any vacuum breaker, permitted, or otherwise required under this chapter when located below the regulatory flood elevation.
- (e) Air relief valves are permitted on private pipelines only when installed at least one foot above the base flood elevation.

(2007, ord 07-84, sec 2.)

**Section 17-56. Plumbing piping under buildings.**

Plumbing piping under buildings constructed on stilts shall be securely anchored against lateral movement and flotation and protected against damage by flood water and debris. Protection shall be provided by the structural enclosure of such piping or by attaching such piping to the downstream side of structural members which are large enough to provide this protection.

(2007, ord 07-84, sec 2.)