William P. Kenoi

West Hawai'i Office 74-5044 Ane Keohokalole Hwy Kailua-Kona, Hawai'i 96740 Phone (808) 323-4770 Fax (808) 327-3563



Duane Kanuha Director

Bobby Command Deputy Director

East Hawai'i Office 101 Pauahi Street, Suite 3 Hilo, Hawai'i 96720 Phone (808) 961-8288 Fax (808) 961-8742

August 4, 2014

Niels Christensen, LPLS The Independent Hawaii Surveyors, LLC P.O. Box 577 Hilo, HI 96721

Dear Mr. Christensen:

SUBJECT:

Application:

VARIANCE DECISION - VAR-14-000225

Agent:

NIELS CHRISTENSEN, LPLS

THE INDEPENDENT HAWAI'I SURVEYORS, LLC

Owners:

RICHARD E. ALDERSON INTER VIVOS TRUST, ET AL./

ROGER UCHIMA

Request:

Variance from Chapter 23, Subdivisions, Article 6, Division 2.

Improvements Required, Section 23-84, Water Supply

Tax Map Key:

2-7-013:022

(SUB-13-001292)

Upon review of your variance application, the Planning Director certifies the **approval** of Variance VAR-14-000225 subject to variance conditions. The variance grants relief for SUB-13-001292 from constructing minimum County dedicable water supply system improvements required by Hawai'i County Code (HCC), Chapter 23 (Subdivisions).

The variance is from the proposed subdivision's minimum requirements pursuant to HCC, Chapter 23 (Subdivisions), Article 6, Division 2, Improvements Required, Section 23-84, Water Supply, (1)(2).

BACKGROUND

- 1. **Location**. The referenced TMK property, Lot 5, Anuhea Volcano House Lots, 2nd Series, also being a Portions of Grants 5362, Apana 2, 2722, 1052, Apana 1 & 1049, Apana 2, containing approximately 40.90 acres, is situated in Aleamai, South Hilo, Hawai'i.
- 2. County Zoning. Agricultural twenty acres minimum (A-20a).
- 3. State Land Use. Agricultural (A).

Niels Christensen, LPLS The Independent Hawaii Surveyors, LLC Page 2 August 4, 2014

- 4. **General Plan.** Land Use Pattern Allocation Guide (LUPAG) map designates the property as Important Agricultural Lands (ial).
- 5. **Subdivision Code Requirements.** The subdivision code requires that subdivisions be served by a water system meeting the minimum requirements of the County Department of Water Supply (DWS) and be provided with water mains and fire hydrants installed to and within the subdivision in accordance with the rules and regulations of the DWS.
- 6. **Subdivision Request/PPM.** Subdivision application SUB-13-001292 was submitted to subdivide Lot 5 into 2 lots consistent with the A-20a zoning. Further action on the subdivision application was deferred pursuant to letter dated November 5, 2013 in the subdivision file.
- 7. **Variance Application.** The variance request from water supply improvements was acknowledged by Planning Department letter dated June 13, 2014. This variance application requests the use of rainwater catchment systems in lieu of extending and/or upgrading the DWS water system or constructing a private water system conforming to DWS standards.
- 8. Agency Comments and Requirements.
 - a. State of Hawai'i-Department of Health (DOH): See attached memorandum dated June 17, 2014.
 - b. County of Hawai'i Fire Department (HFD): See attached memorandum which is representative of the HPD's typical response to this type of application.
 - c. Department of Water Supply (DWS): See attached memorandum dated June 24, 2014.
 - d. No other agency comments were solicited and none were received.
- 9. Notice to Surrounding Owners/Posted Sign. The applicant submitted evidence, dated March 20, 2014, regarding the posting of a public notification sign on the subject property pursuant to Section 23-17(c) of the HCC. Pictures of the posted sign were also submitted. Further, verification was submitted that a notice of the application was sent on June 25, 2014 to the surrounding property owners as required by Section 23-17(a).
- 10. Comments from Surrounding Property Owners or Public. No written objections to this application were received from the surrounding property owners or the public.

ANALYSIS OF GROUNDS FOR VARIANCE

No variance will be granted unless it is found that:

(a) There are special or unusual circumstances applying to the subject real property which exist

Niels Christensen, LPLS The Independent Hawaii Surveyors, LLC Page 3 August 4, 2014

either to a degree which deprives the owner or applicant of substantial property rights that would otherwise be available or to a degree which obviously interferes with the best use or manner of development of that property.

The Variance application meets criterion (a) for the following reasons(s):

The subdivision request is for two (2) lots in keeping with the existing A-20a zoning. Although a dedicable water system is a requirement of the code, the subject property is not served by the existing DWS system facilities and it would be unreasonable to expect the owners to upgrade the existing DWS water system. It also would be prohibitive to drill wells and provide other water system infrastructure to DWS standards.

Therefore, it is reasonable that, in lieu of constructing water system improvements to either extend/ upgrade the DWS facilities or provide a private water system to DWS standards for the pending 2-lot subdivision, a more reasonable alternative can be allowed pursuant Rule 22.

The above special and unusual circumstances would deprive the applicant from developing this property and interferes with the best use of this property. Therefore, for this large lot, agricultural subdivision, the best use and manner of the development allows for the use of individual rainwater catchment systems.

(b) There are no other reasonable alternatives that would resolve the difficulty.

The Variance application meets criterion (b) for the following reasons(s):

Constructing water system improvements to either extend/upgrade the DWS facilities or provide a private water system to DWS standards for the pending 2-lot subdivision would be placing excessive demands upon the applicant because of the extensive improvements required to the existing DWS water system facilities.

Therefore, there are no reasonable alternatives that would resolve the difficulty.

(c) The variance will be consistent with the general purpose of the district, the intent and purpose of this chapter, and the County general plan and will not be materially detrimental to the public welfare or cause substantial, adverse impact to an area's character or to adjoining properties.

The Variance application meets criterion (c) for the following reasons(s):

For this rural subdivision, given that there is adequate rainfall (approximately 160 to 200 inches of rainfall annually) to support individual water catchment and this is a rural subdivision, the granting of this variance would be consistent with the general purpose of the district. Water catchment is consistent with the intent of the policies of the general plan for this rural area. This will not be materially detrimental to the public welfare as it serves only private parties.

Niels Christensen, LPLS The Independent Hawaii Surveyors, LLC Page 4 August 4, 2014

Granting of the variance will not cause substantial, adverse impact to the area's character or to adjoining properties as rainwater catchment is the norm for this area. It may actually be beneficial to the area by reducing rainwater runoff.

Given that the subject property has sufficient annual rainfall, a water variance would be consistent with the general purpose of the zoning district and the intents and purposes of the Zoning Code, Subdivision Code, Planning Department Rule 22 and the Hawai'i County General Plan.

DETERMINATION-VARIANCE CONDITIONS

The variance to permit the proposed 2-lot subdivision of the subject TMK property without providing dedicable water system improvements meeting DWS standards is hereby **approved** subject to the following variance conditions:

- 1. The applicant, owners, their assigns, or successors shall be responsible for complying with all stated conditions of approval.
- 2. Should the Council adopt a Unified Impact Fees Ordinance setting forth criteria for the imposition of exactions or the assessment of impact fees, conditions included herein shall be credited towards the requirements of the Unified Impact Fees Ordinance.
- 3. The owners, their assigns, or successors shall file a written agreement document with the Planning Department within one (1) year from the issuance of tentative subdivision approval. This written agreement shall contain deed language, being covenants, conditions, and restrictions, as outlined in this variance, affecting the lots created by the proposed subdivision which are not serviced by a County dedicable public water system. The agreement shall be duly recorded at the Bureau of Conveyances of the State of Hawai'i by the subdivider at their cost and expense.

A copy of the recorded document shall be provided to the Planning Department.

In the event that there are any amendments or changes to the subdivision after the agreement is signed, the applicant shall be responsible for informing the County Planning Department of such amendments or changes so that the agreement can be amended concomitantly. Further, the recorded agreement shall be binding upon the owner(s), their successors or assigns and shall be incorporated as an exhibit and made part of each agreement of sale, deed, lease, or similar documents affecting the title of the existing property or approved subdivided lots.

4. The subdivider and all grantees, successors, and assigns acknowledge that the parcels were created by

Niels Christensen, LPLS The Independent Hawaii Surveyors, LLC Page 5 August 4, 2014

a variance from the normal subdivision requirements of Hawai'i County, and that there are no longer any special or unusual circumstances applying to the property, and hence, no grounds exist or will exist for another variance from the Subdivision Code to permit further subdivision of the properties.

- 5. The owners, grantees, successors, and assigns agree and accept the fact that a County dedicable public water system will not be extended to serve the lots within proposed subdivision SUB-13-001292.
- 6. The owners, grantees, successors, and assigns agree and accept the fact that the County will not bear the responsibility of supplying dedicable public water improvements to the proposed lots. No further subdivision of the lots created will be permitted unless County dedicable public water system requirements and other requirements of HCC Chapter 23, Subdivisions, are met.
- 7. No condominium property regime shall be allowed on any lot created, nor shall an Ohana Dwelling Unit be permitted or allowed.
- 8. Any dwelling constructed on any created lot shall be provided with and maintain a private rainwater catchment system which includes a minimum 6,000-gallon water storage capacity for domestic consumption or potable uses. This private water storage system shall adhere to the University of Hawai'i's College of Tropical Agriculture and Human Resources' "Guidelines on Rainwater Catchment Systems for Hawai'i as well as the DOH requirements related to water testing and water purifying devices.
- 9. Each permitted dwelling shall also be provided with a minimum 3,000 gallon water storage capacity dedicated for fire fighting and emergency purposes. The location and capacity of the emergency water supply system, including the necessary compatible fire apparatus connector system, shall be as required by the HFD. The HFD also advises, as a precautionary measure for other uninhabited structures, that consideration be given to the provision of a similar water storage system for fire fighting and emergency purposes.
- 10. In the event that the County notifies the owner(s) of the lot(s) created, that the County water system has been upgraded or an improvement district initiated to enable dedicable service to these lots, the owner(s) of lot(s) shall participate in such improvement district or shall pay their pro-rata share of the upgrade and installation of laterals, as determined by the DWS.
- 11. The pending subdivision application's (SUB-13-001292) final plat map shall meet all the requirements of the Hawai'i County Zoning Code and the Subdivision Code that are not covered by this variance.
- 12. The subdivider, owner(s), their assigns or successors shall pay any outstanding real property taxes and comply with all other applicable State statutes and County ordinances pertaining to building improvements and land use.

Niels Christensen, LPLS The Independent Hawaii Surveyors, LLC Page 6 August 4, 2014

Should any of the foregoing conditions not be complied with, the Planning Director may proceed to declare this Variance Permit null and void.

Sincerely, DUANE KANUHA

Planning Director

Encis:

XC:

JRH:nci

P:\Admin Permits Division\Variance\2014\VAR-14-000225Alderson Water\APVL.doc

Agency Comments

DWS-Engineering Branch SUB-13-001292

xc w/encls: RICHARD E. ALDERSON INTER VIVOS TRUST, ET AL./ROGER UCHIMA P.O. Box 251

Honomū, HI 96728

C. Kay, HCDP Planner via email

G. Bailado, GIS Section (via email)



200 SEP ~5 JH 7: 49



Darren J. Rosario for Old Renwick J. Victorino Page for Old

County of Hawai'i

HAWAI'I FIRE DEPARTMENT
S' August Street - Room 2:41 - Hib. Harst 1 5:720

JBG\$) 932-2900 + Fax (\$00) 932-2928

August 29, 2013

TO: DUANE KANUHA, PLANNING DIRECTOR

FROM: DARREN J. ROSARIO, FIRE CHIEF

SUBJECT: VARIANCE APPLICATION (VAR 13-000).

APPLICANT: DANIEL L. BERG, DLB & ASSOCIATES
OWNERS:

REQUEST: VARIANCE FROM CHAPTER 23, SUBDIVISIONS,
ARTICLE 6, DIVISION 2, IMPROVEMENTS REQUIRED, SECTION 23-84, WATER SUPPLY

TAX MAP KEY: @ Feb. Ship Ship Bay

In regards to the above-mentioned Variance application, the Hawai's Fire Department recommends that the following shall be in accordance:

NFPA 1, UNIFORM FIRE CODE, 2006 EDITION

Note: NFPA 1, Hawai'i State Fire Code with County amendments. County amendments are identified with a preceding "C-" of the reference code.

Chapter 18 Fire Department Access and Water Supply

18.1 General. Fire department access and water supplies shall comply with this chapter

For occupancies of an especially hazardous nature, or where special hazards exist in addition to the normal hazard of the occupancy, or where access for fire apparatus is unduly difficult, or areas where there is an inadequate fire flow, or inadequate fire hydran spacing, and the AIII may require additional safeguards including, but not limited to, additional fire appliance units, more than one type of appliance, or special systems suitable for the protection of the hazard involved.

9.8.1 Plan

18.1.1.1 Fire Apparatus Access. Plans for fire apparatus access roads shall be submitted to the fire department for review and approval prior to construction.

Hanes's County is an Equal Opportunity Provides and Employer.



NEIL ABERCROMBIE



M. LINDA ROSEN, M.D., ILP.H.

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 816
HILO, HAWAII 96721-9316

MEMORANDUM

DATE: June 17, 2014

Planning Director, County

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Planning Director, County of Hawaii

District Environmental Health Program Chief

FROM:

Newton Induye 숷

SUBJECT: Application: VARIANCE (VAR-14-000225)
Agent: NIELS CHRISTENSEN, LPLS, THE INDEPENDENT

HAWAI"I SURVEYORS, LLC
Owners: RICHARD E. ALDERSON INTER VIVOS TRUST. ET
ALJROGER UCHIMA

Variance from Chapter 23, Subdivisions, Article 6, Division

2, Improvements Required, Section 23-84, Water Supply Tax Map Key: 2-7-013;022 (SUB-13-001292)

Request:

The Department of Health's Safe Drinking Warer Branch authority on drinking water quality is based on the definition for a "public water system." A "public water system means a system which provides water for human consumption through pipe or other constructed conveyance if such system has fifteen (15) service connections or regularly serves an average of at least twenty-fire (25) individuals daily at least sixty (60) days out of the year. All public water systems are regulated by the Department of Health and shall be in compliance with the Hawaii Administrative Rules, Title 11. Chapter 20. Recommend the subdivision lots be connected to an existing public water system.

Concerns on water quality for lead, copper, algae, and microbiological and chemical contaminations in private water systems have identified the need for self monitoring. The Department of Health does not support the use of these private rain catchment systems for drinking water purposes since the quality may not meet National Primary Drinking Water Standards for potable drinking water for human consumption. The U.S. Environmental Protection Agency (EPA) defines human consumption to include drinking, bathing, showering, cooking, dishwashing, maintaining oral hygiene and includes hand washing.

WORD: VAR -14-000225.ni

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是一个人,我们是一个人

Duane Kanuha August 29, 2013 18.2.3.1.3* When not more than two one- and two-family dwellings or private garages, carports, sheets, agricultural buildings, and detached buildings or structures 400ff (37 m²) or less are theren, the requirements of 18.2.3.1 through 18.2.3.1 shall be permitted to be modified by the AH.

18.2.3.1.4 When fire department access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades, or other similar conditions, the AHJ shall be authorized to require additional five protection features.

18.2.3.2 Access to Building.

18.2.3.2.1 A fire department access road shall extend to within in 50 ft (15 m) of at least one extenior door that can be opened from the outside that provides access to the interior of the building. Exception: I and 2 single-family dwellings.

18.23.2.1.1 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13. NFPA 13D, or NFPA 13R, the distance in 18.23.2.1 shall be permitted to be increased to 300 feet.

18.2.3.2.2 Fure department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 ft (46 m) from fure department access roads as measured by an approved route around the exterior of the building or facility.

18.2.3.2.2.1 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with NFPA 13, NFPA 13D, or NFPA 13R, the distance in 18.2.3.2.2 shall be permitted to be increased to 450 ft (137 m).

18.2.3.3 Multiple Access Roads. More than one fire department access road shall be provided when it is determined by the AHJ that access by a single road could be impaired by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit access.

18.2.3.4 Specifications.

18.2.3.4.1 Dimensions.

C~18.2.3.4.1.1 FDAR shall have an unobstructed width of not less than 20ft with an approved time around area if the FDAR exceeds 150 feet. Exception: FDAR for one and two family dwellings shall have an unobstructed width of not less than 1.5 feet, with an area of not less than 20 feet wide within 1.50 feet of the structure being protected. An approved turn around area shall be provided if the FDAR exceeds 250 feet.

Duane Karuha August 29, 2013 Pave 2 18.1.1.2 Fire Hydraut Systems. Plans and specifications for fire hydraut systems shall be submitted to the fire department for review and approval prior to construction.

C. 18.1.1.2.1 Fire Hydrant use and Restrictions. No unauthorized person shall use or operate any Fire hydrant unless such person first secures permission or a permit from the owner or representative of the department, or company that owns or governs talk water supply or system. Exception: Fire Department personnel conducting firefighting operations, hydran testing, and/or maintenance, and the flushing and acceptance of hydrants witnessed by Fire Prevention Bureau personnel.

18.2 Fire Department Access.

18.2.1 Fire department access and fire department access roads shall be provided and maintained in accordance with Section 18.2.

18.2.2* Access to Structures or Areas.

18.2.2.1 Access Box(es). The AHI shall have the authority to require an access box(es) to be installed in an accessible location where access to or within a structure or area is difficult because of security.

18.2.2.2 Access to Gated Subdivisions or Developments. The AHJ shall have the authority to require fire department access be provided to gated subdivisions or developments through the use of an approved device or system.

18.2.2.3 Access Maintenance. The owner or occupant of a structure or area, with required fire department access as specified in 18.2.2.1 or 18.2.2.2. shall notify the AH) when the access is modified in a manner that could prevent fire department access.

18.2.3 Fire Department Access Roads. (*may be referred as FDAR)

18,2,3.1 Required Access.

18.2.3.1.1 Approved fire department access roads shall be provided for every facility, building, or portion of a building hereafter constructed or relocated.

18.2.3.1.2 Fire Department access roads shall consist of roadways, fire lanes, parking lots lanes, or a combination thereof.

Duane Kanuha August 29, 2013 Page 5 18.2.3.4.6.2. The anyle of approach and departure for any means of fire department access road shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m) or the design limitations of the fire apparatus of the fire department, and shall be subject to approval by the AHJ.

18.2.3.4.6.3 Fire department access roads connecting to roadways shall be provided with curb cuts extending at least 2 ft (0.61 m) beyond each edge of the free lane.

18.2.3.4.7 Traffic Calming Devices. The design and use of traffic calming devices shall be approved the AHI.

18.2.3.5 Marking of Fire Apparatus Access Road

18.2.3.5.1 Where required by the AHJ, approved signs or other approved notices shall be provided and maintained to identify fire department access roads or to prohibit the obstruction thereof of both.

18.2.3.5.2 A marked fire apparatus access road shall also be known as a fire lane.

18.2.4* Obstruction and Control of Fire Department Access Road.

18.2.4.1 General.

18.2.4.1.1 The required width of a fire department access road shall not be obstructed in any manner, including by the parking of vehicles.

18.2.4.1.2 Minimum required widths and cleurances established under 18.2.3.4 shall be maintained at all times.

18.2.4.1.3* Facilities and structures shall be maintained in a manner that does not impair or impede accessibility for fire department operations.

18.2.4.1.4 Entrances to fire departments access roads that have been closed with gates and barriers in accordance with 18.2.4.2.1 shall not be obstructed by parked vehicles

18.2.4.2 Closure of Accessways.

18.2.4.2.1 The AHJ shall be authorized to require the installation and maintenance of gates or other approved barricades across roads, trails, or other accessways not including public streets, alloys, or highways.

18.2.4.2.2 Where required, gates and burricades shall be secured in an approved manner.

Duane Kamha August 29, 2013 Page 4 C-18.2.3.4.1.2 FDAR shall have an unobstructed vertical elearance of not less then 13ft 6 in.

C- 18.2.3.4.1.2.1 Vertical clearances may be increased or roduced by the AHJ, provided such increase or reduction does not impair access by the fire apparatus, and approved signs are installed and maintained indicating such approved changes.

18.2.3.4.1.2.2. Vertical clearances shall be increased when vertical clearances or widths are not adoquate to accommodate fire apparatus.

C~ 18.2.3.4.2 Surface. Fire department access roads and bridges shall be designed and maintained to support the imposed loads (25 Tons) of the fire apparatus. Such FDAR and shall be comprised of an all-weather driving surface.

18.2.3.4.3 Turning Radius.

C- 18.2.3.4.3.1 Fire department access roads shall have a minimum ireide turning radius of 30 feet, and a minimum outside turning radius of 60 feet.

18.2.3.4.3.2 Turns in fire department access road shall maintain the minimum road width.

18.2.3.4.4 Dead Ends. Dead-end five department access roads in excess of 150 \Re (45 m) in length shall be provided with approved provisions for the fire apparatus to turn around.

18.2,3.4.5 Bridges.

18.2.3.4.5.1 When a bridge is required to be used as part of a fire department access road, it shall be constructed and maintained in accordance with courty requirements.

18.2.3.4.5.2 The bridge shall be designed for a live load sufficient to carry the imposed loads of fire apparatus.

18.2.3.4.5.3 Vehicle load limits shall be posted at both entrances to bridges where required by the AHJ.

18.2.3.4.6 Grade.

C--18.2.3.4.6.1 The maximum gradient of a Fire department access road shall not exceed 12 percent for unpaved surfaces and 15 percent for paved surfaces. In areas of the FDAR where a Fire apparatus would connect to a Fire hydrant or Fire Department Connection, the maximum gradient of such area(s) shall not exceed 10 percent.

Duane Kanuha August 29, 2013 Page 7 18.3.5 Private water supply systems shall be tested and maintained in accordance with NFPA 25 or county requirements as determined by the AHJ.

18.3.6 Where required by the AHI, fire hydrants subject to vehicular damage shall be protected indees located within a public right of way. 18.1.7 The AHJ shall be notified whenever any fire hydrant is placed out of survice or returned to service. Owners of private property required to have hydrants shall maintain hydrant records of approval, testing, and maintenance, in accordance with the respective county water requirements. Records shall be made available for review by the AHJ upon request.

C-18.3.8 Minimum water supply for buildings that do not meet the minimum County water standards:

Buildings up to 2000 square feet, shall have a minimum of 3,000 gallons of water available for firefighing.

Buildings 2001 - 3000 square feet, shall have a minimum of 6,000 gallons of water available for Firefighting. Buildings, 3001 - 6000 square feet, shall have a minimum of 12,000 gallons of water available for Firefighting.

Buildings, greater than 6000 square feet, shall meet the minimum County water and fire flow requirements.

Multiple story buildings shall multiply the square feet by the amount of stories when determining the mainmum water supply.

Commercial buildings requiring a minimum fire flow of 2000gpm per the Department of Water standards shall double the minimum water supply reserved for fre-fighting.

Fire Department Connections (FDC) to alternative water supplies shall comply with 18.3.8 (1)-(6) of this code

NOTE: In that water eatthment systems are being used as a means of water supply for firefighting, such systems shall meet the following requirements:

(I) In that a single water thanks used for both domestic and firefighting water, the water for domestic use shall not be capable of being dawn from the water reserved for firefighting.

Duane Kamha August 29, 2013 Page 6 18.2.4.2.3 Roads, trails, and other accessways that have been closed and obstructed in the mariner prescribed by 18.2.4.2.1 shall not be trespassed upon or used unless authorized by the owner and the AHI.

18.2.4.2.4 Public officers acting within their scope of dary shall be permitted to access restricted property identified in 18.2.4.2.1.

18.2.4.2.5 Locks, gates, doors, barricades, chains, enclosures, signs, tags, or seals that have been installed by the fire department or by its order or under its control shall not be removed, unlocked, destroyed, tumpered with, or otherwise vandalized in any manner.

18.3 Water Supplies and Fire Hydrants

18.3.1* A water supply approved by the county, capable of supplying the required free flow for fire protection shall be provided to all premises upon which facilities or buildings, or portions thereof, are bereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, onseque fire fire hydraxis and mains capable of supplying the required for flow shall be provided when required by the AHJ. For on-site fire hydraxis see section 18.3.3. EXCEPTIONS:

- When facilities or buildings, or portions thereof, are completely protected with an approved automatic fire sprinkler system the provisions of section 18.3.1 may be modified
- by the AHI.

 2. When water supply requirements cannot be installed due to topography or other conditions, the AHI may require additional fire protection as specified in section 18.3.2 as anneaded in the colos.
 - When there are not more than two dwellings, or two private garage, carports, sheds and agricultural. Occupancies, the requirements of section 18.3.1 may be modified by AHI.
- 18.3.2* Where no adequate or reliable water distribution system exists, approved reservoirs, pressure tanks, elevated tanks, fire department tanker shuttles, or other approved systems capable of providing the required fire flow shall be permitted.

18.3.3* The location, number and type of fire hydrants connected to a water supply capable of delivering the required fire flow shall be provided on a fire apparatus access road on the site of the permises or both, in accordance with the appropriate coursty water requirements.

18.3.4 Fire Hydrants and connections to other approved water supplies shall be accessible to the fire department.

Duane Kanuha August 29, 2013 Page 9

minimum Fire Department Access Road requirements, the distance to the Fire greater than 2000square feet, but less than 3000 square feet and meets the Department Connection may be increased to 500 feet.

(5) For buildings with an approved automatic sprinkler system, the nunimum water supply required may be modified. If there are any questions regarding these requirements, please contact the Fire Prevention Bureau at (808) 932-2911.

Q.P.

DARREN J. ROSARIO Fire Chief

RP/Ic

Duane Kamha August 29, 2013 Page 8

(2) Minimum pipe diameter sizes from the water supply to the Fire Department Connection (FDC) shall be as follows:

(a) 4" for C900 PVC pipe;

(b) 4" for C906 PE pipe;

(d) 3' for galvanized steel. (c) 3" for ductile Iron;

(3) The Fire Department Connection (FDC) shall: (a) be made of galvanized steel:

(b) have a gated valve with 2-1/2 inch, National Standard Thread male fitting and cap;

(c) be located between 8 ft and 16 ft from the Fire department access. The location shall be approved by the AHI;

(e) be secure and capable of withstanding drafting operations. Engineered (d) not be located less than 24 inches, and no higher than 36 inches from faish grade, as measured from the center of the FDC orifice;

(f) not be located more than 150 feet of the most remote part, but not less stamped plans may be required;

(g) also comply with section 13.1.3 and 18.2.3.4.6.1 of this code; than 20 feet, of the structure being protected;

a second FDC. Each FDC shall be independent of each other, with each FDC being be located in an area approved by the AHJ with the idea of multiple Fire apparatus? capable of flowing 500gpm by engineered design standards. The second FDC shall (4) Commercial buildings requiring a fire flow of 2000gpm shall be provided with conducting drafting operations at once, in mind.

Inspection and maintenance shall be in accordance to NPPA 25.

(6) The owner or lessee of the property shall be responsible for maintaining the water level, quality, and appurtenances of the system.

EXCEPTIONS TO SECTION 18.3.8:

(1) Agricultural buildings, storage sheds, and shade houses with no combustible (2) Buildings less than 800 square feet in size that meets the minimum Fire or equipment storage.

(3) For one and two family dwellings, agricultural buildings, storage sheds, and Department Access Road requirements.

detached garages 800 to 2000 square feet in size, and meets the minimum Fire Department Access Road requirements, the distance to the Fire Department Connection may be increased to 1000 feet.

(4) For one and two family dwellings, agricultural buildings, and storage sheds



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DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I s45 KENDANDA STREET, SUITERRY : "HILG. HAWHIR'S TO TELEPHONE (808) 961-8050 • FAX (808) 951-8657

June 24, 2014

Mr. Duane Kanuha, Director ë

Planning Department

Quirino Antonio, Jr., Manager-Chief Engineer ROM

SUBJECT:

VARIANCE (YAR 14-000225) SUBDIVISION APPLICATION NO. 13-001292 APPLICANT - RICHARD E. ALIDERSON INTER VIVOS TRUST, ET AL. TAX MAP KEY: 2-7-013-022

We have reviewed the subject variance application and refer to our letter of October 30, 2013, in which we state that the Department's existing Kaiete Water System cannot provide the proposed subdivision with water in accordance with the Subdivision Code and the Department's Rules and Rogulations without extensive improvements.

The Department of Water Supply has no objection to the variance request.

Should there be any questions, please contact Mr. Lawrence Beck of our Water Resources and Planning Branch at 961-8070, extension 260.

Quirino Antonio, Jr., P.E. Managh-Chief Engineer

LB:sco

copy - Mr. Nicls Christensen. LPLS

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The Department of Water Supply is an Equal Opportunity provides and employed