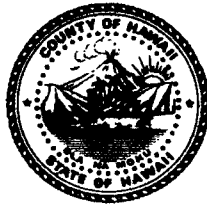


William P. Kenoi  
Mayor



Duane Kanuha  
Director

Bobby Command  
Deputy Director

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

**County of Hawai'i**  
**PLANNING DEPARTMENT**

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

February 9, 2016

Susan Wells Fischer  
Keanahalululu, LLC  
P.O. Box 44417  
Kawaihae, HI 96743

Dear Ms. Fischer:

**SUBJECT: VARIANCE DECISION - VAR-15-000335**  
**Applicant: SUSAN WELLS FISCHER**  
**Owner: KEANAHALULULU, LLC**  
**Request: Variance from Article 3, Division 4, Street Design, Section 23-41, Minimum Right-of way and Pavement Widths; And Article 6, Division 2, Improvements Required, Sections 23-87, Standard for Nondedicable Street & 23-95, Right-of-way Improvement**  
**Tax Map Key: 1-8-009:053 (SUB-95-000159)**

Upon review of your variance application, the Planning Director certifies the **approval** of Variance VAR-15-000335 subject to variance conditions. The variance grants relief for SUB-95-000159 from constructing minimum County dedicable roadway improvements for the 9 lots as 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 3, Division 4, Street Design, Section 23-41, Minimum Right-of way and Pavement Widths; And Article 6, Division 2, Improvements Required, Sections 23-87, Standard for Nondedicable Street & 23-95, Right-of-way Improvement.

**BACKGROUND**

1. **Location.** The referenced property, being a portion of Lot 329, 'Ōla'a Reservation Lots, also being a portion of Grant 4,237, containing approximately 46.557 acres, is situated in 'Ōla'a, Puna, Hawai'i.
2. **County Zoning.** Agricultural – five acres (A-5a).
3. **State Land Use.** Agricultural (A).

4. **General Plan.** Land Use Pattern Allocation Guide (LUPAG) map designates the property as Extensive Agricultural Lands (ea).
5. **Subdivision Code Requirements.** Hawai'i County Code, Chapter 23, Subdivisions requires that subdivisions be served by minimum right-of-way and paving widths of 50 feet and 20 feet, respectively, and full right-of-way improvement to include paved shoulders and swales.
6. **Subdivision Request/PPM.** Subdivision application SUB-95-000159 was submitted to subdivide the subject TMK property into 9 lots. Action on the subdivision application has been further deferred pursuant to letter of road variance application dated November 7, 2015 in the subdivision file.
7. **Variance Application.** The variance request from roadway improvements was acknowledged by Planning Department letter dated December 8, 2015. This variance application includes background history and circumstances and information regarding the pending subdivision application.
8. **Variance Application (VAR-15-000335) Agency Comments and Requirements.**
  - a. Puna Community Development Plan Action Committee (PCDPAC): See attached e-mail dated December 15, 2015. (Exhibit A)
  - b. County of Hawai'i Fire Department (HFD): See attached memorandum dated December 17, 2015. (Exhibit B)
  - c. Department of Public Works (DPW): The DPW did not comment on this variance application as of this date. However, See attached memorandum dated March 8, 2011 in response to the subdivision application. (Exhibit C)
9. **Notice to Surrounding Owners/Posted Sign.** The applicant submitted evidence, dated January 11, 2016, regarding the posting of a public notification sign on the subject property pursuant to Section 23-17(c) of the Hawai'i County Code (HCC). A picture of the posted sign was also submitted. Evidence submitted on December 14, 2015 also indicates that a notice of the application was sent to the surrounding property owners as required by Section 23-17(a).
10. **Comments from Surrounding Property Owners or Public.** There were no written comments received from the public or surrounding property owners.

#### 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 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):

There is no practical reason to improve the Access and Utility easements to County standards as it serves a limited number of agricultural properties and is not a through street. Installing a roadway to County standards for the proposed lots created by subdivision would be out of character of the immediate and surrounding areas for this 9 lot agricultural subdivision.

The proposed road with 12 foot wide graveled travel way and 2 foot wide paved shoulders and swales within the 50 foot wide right-of-way should be adequate for this cul-de-sac which will only serve the affected lots and no other adjoining properties.

The above special and unusual circumstances would deprive the applicant from developing this property and interferes with the best use of this property.

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

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

There is no practical reason to improve the Access and Utility easements to County standards as it serves only 12 properties total and is a cul-de-sac as opposed to a through street. This 12 foot wide graveled travel way and 2 foot wide shoulders/swales would allow for a more permeable surface to minimize rainwater run-off and should be adequate for the purposes of this agricultural subdivision.

**(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):

A comprehensive road maintenance plan will be included in recorded Covenants, Conditions and Restrictions ("CCR's") for the proposed and existing lots served by the right-of-way to assure that the Easements are properly maintained by the benefitted lot owners. The roadway variance authorizing use of a privately owned road, with an agricultural 12 foot wide driving lane of less than 8% grade with 2 foot wide grassed or graveled shoulders, a base of 6 inch minimum aggregate base course as in DPW Standard Detail (Std. Det.) R-39 without the oil treatment, and within the existing 50 foot wide Access and Utilities easements right-of-way. will not be detrimental to public welfare or burden County resources. The proposed roadway is designed for use only by the owners, residents, and associated farm workers having direct use of the Property. This will be a low-volume road serving a maximum of 12 lots in keeping with Section 23-48(a) of the

subdivision code regarding the maximum number of lots served by a cul-de-sac (18); 9 lots for the present subdivision and 3 lots of Pu'u O'o Ranchlands, Phase 2. The subdividers' plans are consistent with the existing land uses and will not have any adverse impact on the area's character or on neighboring properties.

The proposed lots meet the minimum lot size for the Ag-5a zoning. The project is consistent with the intent and purpose of the Zoning and Subdivision Codes. The General Plan designation for the Property is "ea," extensive agricultural lands. The project is designed with lots for continued agricultural use. The Owners' plans are consistent with these designations.

Although the PCPDAC recommends limiting variances that allow subdivisions that rely on water catchment or roads that do not meet subdivision road standards to a maximum of six lots, this subdivision application was initiated well before the PCDP was adopted. Further, there are not presently any "Village" or "Commercial" center plans for the Glenwood area as those have been focused in the Volcano and Mountain View areas of Upper Puna.

#### **DETERMINATION-VARIANCE CONDITIONS**

The variance to permit the proposed 9-lot subdivision of the subject TMK property without providing a County dedicable roadway, and in lieu utilizing a privately owned agricultural 12 foot wide driving lane of less than 8% grade with 2 foot wide grassed or graveled shoulders, a base of 6 inch minimum aggregate base course as in DPW Std. Det. R-39 without the oil treatment, and within the existing 50 foot wide Access and Utilities easements right-of-way, non-dedicable road 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 this variance approval. This written agreement shall contain deed language, being covenants, conditions, and restrictions affecting the 9 lots created by the proposed subdivision which are not serviced by a County dedicable privately owned alternative roadway. The agreement shall be duly recorded at the Bureau of Conveyances of the State of Hawai'i by and at the cost and expense of the owners. A copy of the recorded document shall be supplied to the Planning Department for our files.

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 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. It is also understood that they will use and maintain the privately owned roadway on their own without any expectation of governmental assistance to maintain the improvements. They shall also indemnify and defend the State of Hawai'i or County of Hawai'i from any and all liability arising out of vehicular access to and from the subject properties utilizing the private right-of-way.
5. Upon written demand of the County of Hawai'i, the applicant and/or owners, their assigns, or successors shall agree to participate and pay their fair share percentage of any improvement district adopted for the purpose of roadway improvements serving the proposed lots. Should the improvement district require acquisition of any privately owned right-of-ways fronting the lots, such right-of-ways shall be dedicated to the County without cost and the value of the dedication credited to the fair share contribution of the respective lot owner(s).
6. The construction plans for the alternative roadway shall be reviewed by the HFD as well as the other affected agencies.
7. The pending subdivision application's (SUB-95-000159) 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.
8. 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.

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

JRH:nci

\\COH33\planning\public\Admin Permits Division\Variance\2015\VAR-15-000335 Fisher Road\APVL.docx

Susan Wells Fischer  
Keanahalululu, LLC  
Page 6  
February 9, 2016

Encls.: Agency Comments

xc: DPW  
HFD  
SUB-95-000159, SUB 7312; VAR 802

xc w/encls.: Hussey's General Store  
c/o Susan Wells Fischer  
P.O. Box 44417  
Kawaihae, HI 96743

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

A. Surprenant, Re. PCDP (via e-mail)

G. Bailado, GIS Section (via email)

3.2.3 Actions

- a. Recommend limiting variances that allow subdivisions that rely on water catchment or roads that do not meet subdivision road standards to a maximum of six lots, unless the subdivision results in lots averaging at least twenty acres in size or averaging at least four times the minimum lot size allowed by zoning, up to an absolute limit of twenty lots. Where lots were created by previous water catchment and/or road variances, and the variance provided that further variances should not be allowed, enforce those provisions by denying further variances on such lots.

If you require further information, please let me know.

Thank you,  
Hans

From: Ishibashi, Natty  
Sent: Tuesday, December 08, 2015 5:21 PM  
To: Santiago, Hans  
Subject: KEANAHALULULU LLC - VAR-15-000335

PCDP

*Natty Ishibashi*  
Administrative Permits Clerk  
County of Hawaii-Planning Department  
101 Puuahi Street, Suite 3  
Hilo, Hawaii 96720  
Phone: (808) 961-6288

Camero, Tracie-Lee

From: Holmes, Jonathan  
Sent: Tuesday, December 15, 2015 9:32 AM  
To: Camero, Tracie-Lee  
Subject: PW: KEANAHALULULU LLC - VAR-15-000335  
Attachments: COR-15-102267(VAR).pdf; 12\_08\_15ACK\_SUSAN WELLS FISCHER - KEANAHALULULU.pdf

Tracie,

For intake, etc. No need to print-out the two attachments though.

Mabalo

From: Santiago, Hans  
Sent: Tuesday, December 15, 2015 9:21 AM  
To: Holmes, Jonathan <Jonathan.Holmes@hawaiicounty.gov>; Chepic, Ed <Ed.Chepic@hawaiicounty.gov>; Ishibashi, Natty <Natty.Ishibashi@hawaiicounty.gov>; Machida, Laurie <Laurie.Machida@hawaiicounty.gov>; Gagonik, Susan <Susan.Gagonik@hawaiicounty.gov>  
Subject: FW: KEANAHALULULU LLC - VAR-15-000335

Jonathan,

On behalf of the Puna CDP Action Committee, I will have to recommend that we do not approve this variance based on the following sections of the Puna CDP.

Chapter 3

Within Puna, the vision is to reshape the development pattern by moving away from the sprawl effects of the existing subdivisions and toward the formation of village and town centers. Over the long term, this will improve the feasibility of developing supporting infrastructure for populated areas, give residents better access to public and commercial services, stimulate local employment opportunities, and reduce dependence on the automobile for transportation. It will also help preserve natural and cultural resources by limiting the spread of the development, as noted in the previous chapter.

3.1.1 Goods

- g. Reduced overall number of buildable lots in Puna.
- h. Incentives, disincentives, regulations and other methods are used to diminish land speculation in Puna.

3.2 AGRICULTURE AND ECONOMIC DEVELOPMENT

Despite an abundance of vacant subdivision lots for residential use, agriculturally-zoned lands continue to be further subdivided, primarily through a variance process from the provision in the subdivision code that requires a water system (sec. 23-84) and with variances from County-standard roads. Allowing a proliferation of such subdivisions creates more lots with poor infrastructure and adds residential growth in areas that already have more lots than can be served. Such subdivisions should be limited in scale.

3.2.2 Objectives

- c. Discourage real estate speculation on agriculturally-zoned lands.

102630

EXHIBIT  
A

William P. Keene  
Mayor



Darren J. Rosario  
Fire Chief  
Bennett J. Victoriano  
Deputy Fire Chief

**County of Hawaii**  
**HAWAII FIRE DEPARTMENT**  
25 Airport Street • Suite 201 • Hilo, Hawaii 96720  
(808) 933-3966 • Fax (808) 933-3258

2015 DEC 18 PM 2 07  
PLANNING DEPARTMENT  
COUNTY OF HAWAII

December 17, 2015

TO: DUANE KANUHA, PLANNING DIRECTOR

FROM: DARREN J. ROSARIO, FIRE CHIEF

SUBJECT: Variance - VAR-15-000335  
Applicant: Susan Wells Fisher  
Owners: Keenahatohi, LLC  
Request: Variance from Article 3, Division 4, Street Design, Section 23-41, Minimum Right-of-way and Pavement Widths; and Article 6 Division 2, Improvements Required, Sections 23-87, Standard for Nondedicable Street & 23-95, Right-of-way Improvement  
Tax Map Key: 1-8-009-53 (SUB-95-000159)

In regards to the above-mentioned Variance application approval would make access difficult for Emergency Vehicles and the following shall be in accordance:

**NFA I. UNIFORM FIRE CODE, 2006 EDITION**  
Note: Hawaii State Fire Code, National Fire Protection Association 2006 version, with County of Hawaii 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 unobtainable, or areas where there is an inadequate fire flow, or inadequate fire hydrant spacing, and the AHJ 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.

18.1.1 Plans.

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.

Duane Kanuha  
December 17, 2015  
Page 2

18.1.1.2 Fire Hydrant Systems. Plans and specifications for fire hydrant 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 that water supply or system. Exception: Fire Department personnel conducting firefighting operations, hydrant 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 AHJ 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 AHJ 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.



102685

Hawaii County is an Equal Opportunity Provider and Employer.

**EXHIBIT**

**B**



C- 18.2.3.4.1.2.1 Vertical clearances may be increased or reduced 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 adequate 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 inside 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 fire department access roads in excess of 150 ft (46 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 county 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.

18.2.3.4.6.2\* The angle 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.

18.2.3.1.3\* When not more than two one- and two-family dwellings or private garages, carports, sheds, agricultural buildings, and detached buildings or structures 400ft<sup>2</sup> (37 m<sup>2</sup>) or less are present, the requirements of 18.2.3.1 through 18.2.3.2.1 shall be permitted to be modified by the AHJ.

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 fire 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 exterior door that can be opened from the outside that provides access to the interior of the building. Exception: 1 and 2 single-family dwellings.

18.2.3.2.1.1 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 18.2.3.2.1 shall be permitted to be increased to 300 feet.

18.2.3.2.2 Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the building is located not more than 150 ft (46 m) from fire 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 turn 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 15 feet, with an area of not less than 20 feet wide within 150 feet of the structure being protected. An approved turn around area shall be provided if the FDAR exceeds 250 feet.

C- 18.2.3.4.1.2 FDAR shall have an unobstructed vertical clearance of not less than 13ft 6 in.

18.2.4.2.4 Public officers acting within their scope of duty 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, tampered 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 fire flow for fire protection shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter 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, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ. For on-site fire hydrant requirements see section 18.3.3.

#### EXCEPTIONS:

1. 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 AHJ.
2. When water supply requirements cannot be installed due to topography or other conditions, the AHJ may require additional fire protection as specified in section 18.3.2 as amended in the code.
3. 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 AHJ.

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 premises or both, in accordance with the appropriate county water requirements.

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

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 AHJ, fire hydrants subject to vehicular damage shall be protected unless located within a public right of way.

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 fire lane.

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

#### 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 clearances 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, alleys, or highways.

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

18.2.4.2.3 Roads, trails, and other access ways that have been closed and obstructed in the manner prescribed by 18.2.4.2.1 shall not be trespassed upon or used unless authorized by the owner and the AHJ.

- 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 AHJ;
  - d) not be located less than 24 inches, and no higher than 36 inches from finish grade, as measured from the center of the FDC orifice;
  - e) be secure and capable of withstanding drafting operations. Engineered stamped plans may be required;
  - f) not be located more than 150 feet of the most remote part, but not less than 20 feet, of the structure being protected;
  - g) also comply with section 13.1.3 and 18.2.3.4.6.1 of *this code*.
- 4) Commercial buildings requiring a fire flow of 2000gpm shall be provided with a second FDC. Each FDC shall be independent of each other, with each FDC being capable of flowing 500gpm by engineered design standards. The second FDC shall be located in an area approved by the AHJ with the idea of multiple Fire apparatus' conducting drafting operations at once, in mind.
- 5) Inspection and maintenance shall be in accordance to NFPA 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 or equipment storage.
- 2) Buildings less than 800 square feet in size that meets the minimum Fire Department Access Road requirements.
- 3) For one and two family dwellings, agricultural buildings, storage sheds, and 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 greater than 2000square feet, but less than 3000 square feet and meets the minimum Fire Department Access Road requirements, the distance to the Fire Department Connection may be increased to 500 feet.

18.3.7 The AHJ shall be notified whenever any fire hydrant is placed out of service 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 Firefighting.

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 minimum 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 firefighting.

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

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

- 1) In that a single water tank is used for both domestic and firefighting water, the water for domestic use shall not be capable of being drawn from the water reserved for firefighting;
- 2) Minimum pipe diameter sizes from the water supply to the Fire Department Connection (FDC) shall be as follows:
  - a) 4" for CS900 PVC pipe;
  - b) 4" for CS906 PE pipe;
  - c) 3" for ductile iron;
  - d) 3" for galvanized steel.

DEPARTMENT OF PUBLIC WORKS  
COUNTY OF HAWAII  
HILO, HAWAII

DATE: March 8, 2011

Memorandum

TO: Planning Department  
FROM: *[Signature]*  
Department of Public Works

SUBJECT: SUBDIVISION: SUB 95-000159  
Subdivider: Shirley A. Hussey  
Location: Olaa, Puna, Hawaii  
TMK: 1-8-009:053 (fka 005, Por.), Lot 329  
Folder No.: 18136-A

We have reviewed the revised preliminary plat map dated June 19, 2007 and have the following comments.

1. §23-30§23-64. Identify all watercourses and drainageways and designate areas within as "approximate areas of flood inundation."
2. §23-79. If improvements are required, submit construction plans and drainage report for review and comment.
  - a. §23-92. Additional storm runoff due to development shall be disposed within the subdivision and shall not be discharged onto adjacent properties or streets. For planned dry wells, satisfy DOH dry well requirements, including issuance of an underground injection control (UIC) permit to the subdivider.
  - b. §23-93. Install streetlights / signs / pavement markings as required by the Traffic Division.
  - c. Identify all private roadways on the construction plans.

Questions may be referred to Robyn Matsumoto at 961-8327.

RM

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Duane Kaniha  
December 17, 2015  
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5) For buildings with an approved automatic sprinkler system, the minimum water supply required may be modified.

If there are any questions regarding these requirements, please contact the Fire Prevention Bureau at (808) 323-4761.

*[Signature]*  
DARREN J. ROSARIO  
Fire Chief

KT:ds

**EXHIBIT**  
*C*