NEIL ABERCROMBIE GOVERNOR OF HAWAII



WILLIAM J. AILA, JR. CHAIRFERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

75 Aupuni Street, Room 204 Hilo, Hawaii 96720 PHONE: (808) 961-9590 FAX: (808) 961-9599

October 9, 2013

FILE COPY OCT 2 3 2013

Ref. No.: 12HD-024 Author: LD-CMM

MEMORANDUM

- TO: Ms. Genevieve Salmonson, Director Office of Environmental Quality Control
- FROM: William J. Aila, Jr., Chairperson Board of Land and Natural Resources
- SUBJECT: Draft Environmental Assessment (EA) for Puna Community Medical Center; Pahoa, Puna, Hawaii, TMK: (3) 1-5-008:005.

The Department of Land and Natural Resources, Land Division, has reviewed the enclosed draft environmental assessment for the above referenced project and anticipates a negative declaration determination.

Please publish the notice of availability for this project on the next publication date of the Environmental Notice.

We have enclosed a completed OEQC Bulletin Publication Form and four (4) copies of the draft environmental assessment.

If you have any questions, please feel free to contact Candace Martin at (808) 961-9590. Thank you.

Enclosures

cc: Land Board Member Central Files District Files



MALAMA O PUNA P.O. Box 1520 Pahoa, HI 96778 (808) 965-2000

malamaopuna@yahoo.com ~ www.malamaopuna.org

Applicant Action EA

Chapter 343, HRS Publication Form

Project Name:	Puna Community Medical Center, DEA			
Island: District: TMK: Permits:	Hawaii Puna (3) 1-5-008:005 Special Use Permit, Grubbing/Grading, Construction, Buil	ding		
Applicant: Contact:	Puna Community Medical Center (PCMC) 15-2662 Pahoa Village Rd, Ste. 306, PMB 8741 Pahoa, Hawaii 96778 Daniel DiDomizio, Director of Clinical Operations (808) 930-6001			
Approving Agency: Contact:	Hawaii District Land Office 75 Aupuni Street, Room 204 Hilo, Hawaii 96720 Candace Martin, Land Agent	OFC	.13	
Consultant: Contact:	 (808) 961-9590 Malama O Puna P.O. Box 1520 Pahoa, Hawaii 96778 Rene Siracusa (808) 965-2000 	. OF ENVIRONMENT. MALITY CONTROL	3 OCT 10 P1:28	RECEIVED
Status:	DEA – AFNSI			
Summary:	PCMC proposes to enter into a direct long-term lease with the Department of Land and Natural Resources in order to construct, in phases, a comprehensive medical center on 5 acres of State land zoned agriculture. The parcel has been vacant and unencumbered for many years, is unsuitable for farming, contains no threatened or endangered biota, not has any archaeological or cultural resources.			

The first phase planned will be a free-standing emergency room.

PUNA COMMUNITY MEDICAL CENTER Keonepokonui Ahupua'a, Puna, Hawai'i TMK (3) 1-5-008:005

Draft Environmental Assessment



August, 2013

Submitted Pursuant to the Hawai'i Environmental Policy Act (HEPA), Chapter 343, Hawai'i Revised Statutes (HRS)

> State of Hawai'i Board of Land and Natural Resources, Land Division 1151 Punchbowl Street Honolulu, HI 96813

DRAFT ENVIRONMENTAL ASSESSMENT PUNA COMMUNITY MEDICAL CENTER

Keonepokonui Ahupua'a, Puna, Hawai'i тмк (3)1-5-008:005

APPLICANT:

Puna Community Medical Center 15-2662 Pahoa Village Rd., Ste. 306, PMB 8741 Pahoa, Hawai'i 96778

APPROVING

AGENCY:

State of Hawai'i Department of Land and Natural Resources, Land Division 1151 Punchbowl Street Honolulu, Hawai'i, 96813

CONSULTANT:

Malama O Puna P.O.Box 1520 Pahoa, Hawai'i, 96778

CLASS OF ACTION:

Direct Lease of State Land State Land Use District: agriculture

Submitted Pursuant to the Hawai'i Environmental Policy Act (HEPA), Chapter 343, and Sections 171-13, 171-16 and 171-43.1, Hawai'i Revised Statutes (HRS), as amended. [this page intentionally left blank]

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SUPPORT LETTERS

November 25, 2008:	US Attorney Edward H. Kubo, Jr.
July 12, 2011:	Dan Taylor, Chair, Puna Community Development Plan
	Action Committee
February 15, 2012:	Howard N. Ainsley, CEO, Hilo Medical Center
March 23, 2012:	Robert K. Lindsey, Jr., Trustee - Hawai'i Island, Office of Hawaiian Affairs
June 3, 2013:	Russell Ruderman, Senator District #2, Hawaii State Senate.
July 1, 2013:	Zendo Kern, Hawai'i County Council District #5, Puna.

OTHER DOCUMENTS

Approval in Concept for the Issuance of a Direct Lease.

April 27, 2012, Board of Land and Natural Resources.

- Cultural Impact Assessment Notice, Hawaii Tribune-Herald Advertising Receipt. December 3, 2012.
- Cultural Impact Assessment Notice, *Ka Wai Ola Newspape*, email acknowledgement, Office of Hawaiian Affairs.

December 4, 2012.

DEED EXHIBIT "A".

FreemanWhite, Inc. Proposal and Agreement for Consulting Services, planning study Phases One and Two.

January 10, 2012.

Letter to Sal Panem, District Engineer, State DOT.

February 15, 2012.

- Palmer and Associates Consulting, Cover letter, Botanical Survey and Plant List. May 21, 2012
- An Archaeological Assessment Survey for the Proposed Puna Community Medical Center, February 2013, Rechtman Consulting, LLC.

SUMMARY OF PROJECT, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The Puna Community Medical Center (PCMC), a 501(c)(3) nonprofit, seeks a long term, renewable Direct Lease from the Board of Land and Natural Resources for the purpose of constructing a comprehensive medical center, beginning with a free-standing emergency room. The parcel consists of 4.920 acres, more or less, and is zoned agricultural in the State Land Use District and Agriculture-20 in the County of Hawai'i CZO. Portions of the parcel were previously cleared when it was leased by Puna Certified Nursery, Inc. under General Lease No. S-5005 for intensive agricultural purposes, but it has lain idle since 3/30/2002 and its current use status is vacant and unencumbered. Upon discussion with the DLNR-Land Division regarding possible suitable parcels for the project, this is the one that was suggested.

PCMC became a nonprofit on May 3, 2007. The Puna Community Development Plan (PCDP), which passed as a County Ordinance in August, 2008, includes the development of a comprehensive medical center with trauma care as one of its goals and objectives. The PCDP-Action Committee, which is charged with the implementation of the plan, has kept the project at the top of its Priority List. PCMC opened the doors of its Phase 1 Urgent/Acute Care Clinic in February, 2009, and to date has managed more than 23,000 patient visits. Hilo Medical Center has confirmed that this clinic's presence has reduced their Emergency Room caseload by a significant amount - and with population growth that amount is expected to increase.

For the initial Emergency Room phase, landclearing and construction activities over less than one quarter of the lot, would produce minor short-term impacts to noise, air, water quality and scenery. Applicant plans to retain as much of the native vegetation as possible, and an uncleared buffer (primarily 'ōhi'a lehua and 'uluhe fern) would be left undisturbed on the southern boundary and highway frontage. There is a five-acre lot separating the project site from the nearest residence; and to the north the nearest parcel is the Department of Water Supply; vacant State land is to the rear of the parcel. Therefore any impacts will not affect residents in any noticeable way. Subsequent future phases would maintain the southern buffer and the policy of retaining as much native vegetation as possible, working it into the landscaping theme.

Any such impacts would also be mitigated by Best Management Practices that are expected to be required as Conditions of the County Special Use Permit and grading permit. The applicant will ensure that its contractor performs all earthwork and grading in conformance with

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applicable laws, regulations and standards. The project has been fully surveyed for threatened and endangered plants, and none are present.

An Archaeological Survey has been completed and accepted by DLNR-SHPD. Notices of Cultural Impact Assessment have been published in the Hawaii Tribune-Herald and the OHA monthly newsletter, Ka Wai 'Ola with no responses. In the unlikely event that undocumented archaeological resources, including rock walls, shell, bones, middens, lava tubes or similar finds are encountered during construction within the project site, work in the immediate area of the discovery will be halted and the State Historic Preservation Division will be notified to determine the appropriate actions.

Pursuant to Chapter 343 Hawaii Revised Statutes, an EA is required to be prepared

PART 1: PROJECT NEED, DESCRIPTION AND E.A. PROCESS

1.1 Project Need, Description and Location

Puna Community Medical Center seeks a Finding of No Significant Impact (FONSI) so that it can contract a Direct Lease of State land on which to construct a comprehensive medical center, in phases, starting with a free-standing emergency room, on a 4.920 acre lot. The lot is zoned Ag-20 and is located on Highway 130 (Kea'au-Pāhoa Road) 0.8 miles north of Pāhoa Marketplace. The Board of Land and Natural Resources has granted it an "Approval in Concept" and is requiring the successful completion of an Environmental Assessment. The parcel is bounded by the highway on the east, by the County Water Department on the north, and by State land on the west and south. The parcel across the highway from it is also County Water Department. The parcel vegetation is primarily 'uluhe fern and young 'ōhi'a lehua (Metrosideros polymorpha), as well as invasive Melastoma (Glory Bush). Although it has been vacant and unused for many years, the previous lessee had cleared a long driveway and an area in the rear of the lot for shade houses and nursery use. Most of the alien weed species are found in this area and along the highway frontage. The archaeological survey has found no cultural resources of significance, and notices of Cultlural Impact Assessment have yielded no comments. This location is close to the Pahoa Town center but not in the middle of the hustlebustle, has easy highway access, with available electric and cable, and water close at hand. It is a short distance (6 lots) from the new Fire Station and the ambulance. The project to be developed will provide more benefits to the community than the vacant, weed-infested parcel it currently is.

Puna has a federal designation as a MUA (Medically Underserved Area) with a PCP (Primary Care Provider) shortage. It has similar federal designations for Mental Health and Dental Health (State of Hawai'i Primary Care Needs Assessment Data Book 2012). Due to a 24.5 percent growth rate since the 2000 Census, Puna now has added an additional County Council District and a new State Legislative District. Medical services have not kept pace with this growth. Puna (both districts) is about the same size as the island of O'ahu, yet Council District 4 has no medical or dental facilities at all; Council District 5 has the Bay Clinic's facilities in Kea'au and Pāhoa. These are open from 8:00 a.m. to 5:00 p.m. on Monday through Friday and are closed on holidays. Although they accept walk-ins, the waiting time has been known to be as long as 4 hours. Appointments often require a 45 day wait. In other words, they are over extended and as a result many of their patients will go to the Hilo Medical Center Emergency Room even for non-emergent complaints. There is an urgent care clinic in Kea'au which is closed on Sundays and holidays. To fill in these service gaps, Puna Community Medical Center does not require appointments, will accept overflow patients from Bay Clinic, is open on

weekends and holidays, sees patients regardless of health insurance or lack thereof, and is now seeking to expand services to fill the needs of this economically depressed and underserved rural community.

The critical need that has been identified as the top priority for expansion of services is that of a free-standing (i.e., not connected to a hospital) emergency room. This also assumes the adjunct services of a clinical laboratory, x-ray and cat scan capability. Discussions with the EMTs stationed at the Pāhoa Fire Station have informed us that with only one ambulance, when there are back-to back calls for

emergency services, if no other ambulance is immediately available to respond, the second call in has to wait until the first has picked up its patient, delivered him or her to Hilo Medical Center's Emergency Department, returned to Puna and then gone on to the second patient. The time expended in travelling means that the second patient has to wait longer for treatment and pain relief. Sometimes they don't last the wait; other times the condition worsens and becomes harder to treat. With an Emergency Room virtually across the street, EMTs envision a shorter turnaround response time that will save lives and avert needless suffering.

Construction will be done in phases. The first phase will consist of the Intake/Reception, Emergency Room, Acute Care Clinic, Clinical Laboratory, X-Ray area and office space, as well as the required infrastructure, such as Septic System, Cesspool, Parking, Ambulance Turn-Around Area, Landscaping with medicinal and native plants, Driveway and Sidewalks. Additional phases will be added as community need dictates and funding becomes available. These future phases may include, in no specific order, a Birthing Center, Helipad, Dental Clinic, Hospital, Maintenance & Storage Building, Alternative Healing Center, Senior Day-Care, and possibly other related elements. All construction will be in compliance with the Americans with Disabilities Act)as well as state and federal requirements for these types of facilities.

The facility will be owned and operated by the Puna Community Medical Center (PCMC), a federally and state recognized 501(c)(3) nonprofit. It formed in May 2007 in response to the needs articulated in the Puna Community Development Plan (see 3.6.2), which became an Ordinance in August 2008, amending the Hawai'i County General Plan. PC opened the doors of its first phase, and Urgent/Acute Care Clinic, on February 1, 2009. It does not deny treatment on the basis of age, gender or gender identity, race, ethnicity, religion or lack thereof, residency, insurance coverage or lack thereof. It is open 7 days a week including holidays. It accepts almost all types of insurance. For uninsured patients it charges on a sliding scale based on income and has easy-payment plans. It also maintains a special grant-supported fund for those patients who are totally indigent, so that no one is turned away. At present the clinic has seen more than 10,500 clients over 23,000+ patient visits, with a monthly average of 500.

1.2 Environmental Assessment Process

Since the proposed action would involve the use of State land, the preparation of an Environmental Assessment (EA) is triggered, and the process is being conducted in accordance with Chapter 343 of the Hawai'i Revised Statutes (HRS). This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawai'i Administrative Rules (HAR), is the basis for the environmental impact assessment process in the State of Hawai'i. According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria. A draft of the EA will be published in the Environmental Notice of the Department of Health, and copies and CDs will be available to relevant State and County departments and to requesting individuals. A scoping meeting will be held in the geographic area of the project. All input received will be incorporated into the Final EA, which will then be presented to the Board of Land and Natural Resources.

Part 4 of this document states the anticipated finding that no significant impacts are expected to occur, based on the preliminary findings for each criterion made by the consultant in consultation with the Hawai'i State Department of Land and Natural Resources, the approving agency. If, after considering comments to the Draft EA, DLNR concludes that, as anticipated, no significant impacts would be expected to occur, then the agency will issue a Finding of No Significant Impact (FONSI), and the action will be permitted to proceed. If the agency concludes that significant impacts are expected to occur as a result of the proposed action, then an Environmental Impact Statement (EIS) will be prepared.

1.3 Public Involvement and Agency Coordination

The following agencies, organizations and individuals have been or will be consulted during the Environmental Assessment Process:

County:

Mayor William Kenoi Planning Department Puna Community Development Plan Action Committee Pahoa Plan Steering Committee District 4 & 5 Councilmen Greggor Ilagan and Zendo Kern Department of Water Supply Fire Department Department of Environmental Management

<u>State:</u>

Department of Land and Natural Resources (DLNR) State Historic Preservation Division Office of Conservation and Coastal Lands Forestry and Wildlife Division Land Division Department of Transportation (DOT) Office of Hawaiian Affairs Department of Health State Senator Russell Ruderman (Puna and Ka'u) State Legislator Faye Hanohano (Puna) Hilo Medical Center

Private:

Kokua Pahoa Mainstreet Pahoa Assn. Sierra Club Nanawale Community Association Hawaiian Shores Community Association HPP Owners Association

No communications were received during early consultation. Support Letters are a section of the Appendix. Presentations on the project were made to Fern Forest C.A., Nanawale C.A., Hawaiian Shores C.A. and HPP Owners Association. All groups responded enthusiastically, and NCA donated \$1,000 and HSCA donated \$1,285 to the Emergency Room Building Fund in a show of support.

PART 2: ALTERNATIVES

2.1 Proposed Project

The proposed project and its location are described in Section 1.1 above and illustrated in the Maps section of the REFERENCES.

2.2 No Action

Under the No Action Alternative, the health facility would not be built. The lot, which has gone unleased for more than twenty years, would probably continue to be vacant and overgrown. No other alternative uses for the property have been put forth, and thus none are addressed in this EA. The community of Puna Makai would continue to be medically underserved, and the

Emergency Room at the Hilo Medical Center would be the only venue for both emergent and non-emergent complaints, taxing it's system and negatively impacting its ability to provide quality and timely emergency services. Residents of Puna Makai would continue to suffer the delay in emergency care and bear the additional costs of being transported to Hilo.

2.3 Locating the Project on Another Parcel

This would require finding another parcel of five or more acres, conveniently sited on a major arterial road in a centralized location for Puna Makai; the parcel would have to have access to water, electric, internet service and other amenities; and it would have to be zoned or be rezonable so that it meets the requirements of the Puna Community Development Plan and the Hawai'i County General Plan. It would also require a willing donor or seller. That all of these requirements could be found in a single parcel is not only problematic, but highly unlikely. The PCMC board and Director of Clinical Operations had already exhausted this approach prior to contacting DLNR Land Management Division. The time required to find this property and negotiate with its owner would, in itself, delay the construction process for a project whose need is already about twenty years overdue. In addition, if the owner is not willing to donate the parcel, PC would have to raise the funds to acquire it. This not only delays the provision of emergency medical services even longer, but it creates obstacles in finding funding (most grants require site control and will not fund land acquisition). Thus, this alternative is neither practicable nor viable.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION

3.1 Physical Environment

3.1.1 Geology, Soils and Geologic Hazards

Environmental Setting

The island of Hawai'i, youngest and largest of the Hawaiian chain, formed from the coalescence of five volcanoes during the last million years. The Puna district encompasses the active Kilauea Volcano, which first erupted between 300,000 and 600,000 years ago and has erupted continually since 1983 (USGS 2005). Puna is essentially the land created by Kilauea Volcano. While activity in the last few decades has originated from Pu'u O'o, there has been some closer recent activity on the East Rift Zone of Kilauea, including lava flows into the Wao Kele O Puna from above what was once the Royal Gardens subdivision. The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes.

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Volcanic hazard as assessed by the U.S. Geological Survey in the project area is Zone 3 on a scale of ascending risk 9 to 1 (Heliker 1990:23). Volcanic hazard Zone 3 areas are at lower risk than Zones 1 and 2, because they are not in themselves active zones and are not adjacent to or downslope of active rift zones.

In terms of seismic risk, the entire Island of Hawai'i is rated Zone 4 Seismic Hazard (Uniform Building Code, 1997 Edition, Figure 16-2). Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built. The project site does not seem to be subject to subsidence, landslides or other forms of mass wasting.

The project site consists entirely of "p4o" flow, which dates from 400 to 750 years B.P. (Wolfe and Morris 1996: sheet 2). It is fairly level with only a moderate slope. Elevation varies from 1,000 to 1,800 feet.

3.1.2 Flood Zones and Hydrology

The average rainfall in the general vicinity of the project area falls between approximately 120 and 160 inches (Juvik and Juvik 1998:57). Temperatures in this area of the Puna District usually fall between the sixties and eighties. As expected, the cooler temperatures and heavier rainfall occur in the winter months (October through April) and warmer temperatures and lighter rainfall occur during the summer months (May-September). Waters of the U.S. include coastal waters, streams, tidal wetlands and ponds, and wetlands that are tributary to other waters of the U.S. Because of the very recent geology, streams are rare in Puna and none are present in or near the project area.

A drainage plan for the parcel will be developed and will undergo review, revision and approval by the Hawai'i County Department of Public Works (DPW) to ensure compliance with standards related to storm water runoff management.

3.1.3 Water Quality

Because the property is several miles from the shoreline, with no water features on or nearby, land clearing and construction activities, which will include best management practices, are not expected to result in sedimentation, erosion or pollution of coastal waters. Thus, the project would require a grading permit but not a National Pollutant Discharge Elimination System permit. While grubbing, excavation and paving may temporarily alter the existing hydrology, properly designed drainage structures, landscaping and best management practices during construction can effectively mitigate construction-associated impacts. In addition, Puna

Community Medical Center and its architect will require that the construction contractor implement the following practices:

- Minimal land disturbance, retaining as much of the native plant species as possible.
- Any construction activities with the potential to produce polluted runoff will not be allowed during heavy rains.
- Cleared area will be replanted or otherwise stabilized as soon as possible.

3.1.4 Flora and Fauna

The subject parcel was included in SHPD File #01255, "An Archaeological Inventory Survey of the Pohoiki #2 Transmission Line Corridor, Puna District, Island of Hawaii, April 1992", although only the section fronting Highway 130 was included in the study. The flora section states:

"Most of the project area [referring to the highway frontage along the entire alignment], however, has a substrate of lava (predominantly *pahoehoe*) with very little soil development. These flows still support a mantle of vegetation which is dominated by two native species: *'ōhia'*a (Metrosideros polymacropus) and *uluhe* (Dicranopteris spp.) ... the vigor of the trees, as well as reports by local informants that the area was grazed by cattle until the middle of this century [i.e., the 20th c.] indicates that what is happening is regrowth. In either case, the forest is dominated by trees less than 10 m in height which are spread out enough that a canopy does not exist. *Uluhe*, or False Staghorn fern, covers more ground than any other species. Weedy orchid, Hilo grass (Paspalum conjugatum) and other grasses, various ferns, occasional guava, and several unidentified shrubs also characterize this type of vegetation zone."

A botanical survey conducted by Palmer & Associates Consulting in 2012 concurs with the above description, with the additional mention of Glory Bush (Tibouchina urvelleana):

"The site is occupied by early successional 'Ohia forest characteristic of pahoehoe fows [sic] of similar age in the surrounding area. Cover of 'Ohia averaged about 50% with uluhe (Dicranopteris linearis) forming a dense growth between the trees. The stands of uluhe are infested with glory bush (Tibouchina urvelleana), which varies in relative cover over the site. A portion of the site was formerly a nursery and the vegetation shows evidence of significant past disturbance. At the former nursery site, introduced grasses and ruderal weeds dominate the vegetation.

"No federal or state listed threatened or endangered plants, or 'species of concern' plants were found on the site. Nor were any unique or important habitats or other significant biological resources found. We conclude that the proposed project will have no significant effect on biological resources."

It should be noted that not only the nursery site, but the highway frontage of the parcel is also dominated by alien weed species, as is to be expected along major arterial roads and, at least partly, as a result of the highway widening project and the land clearing involved. Palmer & Associates letter of May 21, 2012 (quoted above) and species list are reproduced in their entirety in the APPENDIX Section. During at least five visits to the site, no fauna, including avifauna, were seen although transects from the highway moving mauka were conducted every fifteen feet. The site was not visited at night, so coquí frogs may be present.

3.1.5 Air Quality, Noise and Scenic Resources

a. Air Quality

Air quality in a given location is generally dictated by regional and local climate plus the type and amount of human activity. The entire State of Hawai'i is considered by Federal and State air quality standards to have acceptable air quality. In Puna the air quality is mostly affected by motor vehicles and natural sources, primarily volcanic emissions. Motor vehicles emit carbon, nitrogen oxides and hydrocarbon (an ozone precursor), as well as smaller amounts of other pollutants. Drivers and passengers of motor vehicles on Highway 130 also periodically cause litter of various sorts (mostly paper and plastic) to be left along the highway, including the portion that fronts the project site. The planned project will not increase traffic in the area and, indeed may reduce it, as patients will not have to travel all the way to Hilo to access emergency care and services.

Due to the close proximity to Kilauea Volcano, volcanic emissions of sulfur dioxide (SO₂) which convert into particulate sulfate causes volcanic haze (vog) to blanket the area during periods of light and variable winds, and when Kona winds are present. Vog frequently impairs air quality in the Puna District (Sutton et al 1997). Needless to say, there is nothing that can be done to mitigate volcano-caused impairments to the local air quality. However, for those persons with respiratory problems, the presence of an emergency medical facility with oxygen and appropriate medications and trained staff will partially mitigate health problems caused by vog.

The third source of air pollution in Puna is emitted by the geothermal power plant operated by Puna Geothermal Venture (PGV), which supplies about 10-20% of the island's electricity. During the 1991 blowout and in the more than 70 upset conditions at the plant since then, the primary pollutant emitted has been H_2S (Hydrogen sulfide). As far as can be determined, unless there is another major accident involving high emission levels coupled with long emission duration, the air quality at the project site, more than 5 miles away, will not be adversely affected. However, residents neighboring the plant, plant workers and emergency responders will all benefit from the presence of an emergency facility in the event of a large-scale release of toxic gasses into the community.

b. Noise

The area is presently very quiet, with the primary noise source being traffic on Highway 130, tour aircraft overflights and rare landings (there is a helipad across the highway and behind the water spigot area) and sounds generating from the County of Hawaii Department of Water Supply abutting the northern project boundary (pumping noise) and across the highway (use of the water spigots provided by the DWS for residents on catchment). During the construction phase of the project there will be noise generated. However, the nearest residence is separated from the site by a five acre undeveloped parcel as well as the southern boundary which will be left in its natural state of *uluhe* fern and 'ohia. There are some parcels on the other side of the highway and closer to Pahoa, and these have shade houses for commercial anthurium production blocking the homes from the highway. Once the facility is in operation, there is expected to be only some minor traffic noise and the periodic sound of the ambulance sirens. Eventually a helipad would be sited to medivac critical cases to Queens Hospital on 'Oahu, but this noise would be of an occasional naure. In general, vehicular traffic noise would not add to the present ambient noise levels, which would continue all the way into Hilo if the project were not built. Therefore, there are no residences, schools, churches or other noisesensitive uses that are located in the area of the proposed project site, and the project itself would not produce objectionable or avoidable noise impacts.

c. Scenic Resources

The project site is not, in itself, scenic. It is bounded by the County Department of Water Supply pumping station to the north, the highway and water spigot area on the east, a vacant five-acre parcel of State land on the south, and more vacant State land on the west. There are no scenic viewplanes that would be blocked by the buildings. PCMC plans to leave as much of the native vegetation intact as is possible, and utilize native plants and medicinal plants, with instructive signage, in its landscaping design, which will enhance the scenic resources of the area.

3.1.6 Hazardous Substances, Toxic Waste and Hazardous Conditions

Based on onsite inspection and the number of years since the parcel was used as a nursery, it appears that the site contains no hazardous or toxic substances and exhibits no other hazardous conditions. A small blister lava bubble found during the archaeological survey will be filled in.

During construction, unused materials and excess fill, if any, will be removed and disposed of at an authorized disposal site. The contractor will be encouraged to recycle or donate for reuse excess material, as appropriate.

Also during construction, emergency spill treatment, storage, and disposal of all hazardous materials, will be explicitly required to meet all State and County requirements, and the contractor will be asked to adhere to "Good Housekeeping" for all appropriate substances, with the following instructions:

- onsite storage of the minimum practical quantity of hazardous materials necessary to complete the job;
- fuel storage and use will be conducted to prevent leaks, spills or fires;
- products will be kept in their original containers unless unresealable, and original labels and safety data will be retained, and disposal of surplus will follow manufacturer's recommendation and adhere to all regulations;
- manufacturers' instructions for proper use and disposal will be strictly followed;
- regular inspection by contractor to ensire proper use and disposal;
- onsite vehicles and machinery will be monitored for leads and receive regular maintenance to minimize leakage;
- construction materials, petroleum products, waste, landscaping materials (herbicides, pesticides, chemical fertilizers - to use used to the minimal extent possible) and debris will be prevented from blowing, falling, flowing, washing or leaching off site;
- all spills will be cleaned up immediately after discovery, using proper materials that will be properly disposed of, and regardless of size, spills or toxic or hazardous materials will be reported to the appropriate government agency;
- should spills occur, the spill prevention plan will be adjusted to include measures to prevent spills from re-occurring and for modified clean-up procedures.

3.2 Socioeconomic and Cultural

3.2.1 Land Use, Designations and Controls

The property is bordered by Highway 130 to the east, the County Department of Water Supply (DWS) pumping station on the north, and vacant State land on the west and south.

The State Land Use District for the property, and adjacent properties within the Keonepoko Nui ahupua'a is agriculture; the County zoning ordinance designation is Ag-20 acres. Section 5(b) lands of the Hawaii Admission Act is the Trust Land Status, and the parcel is not one of the DHHL 30% entitlement lands pursuant to the State Constitution. The property is a portion of Government lands of Keonepoko Nui, Puna, Hawaii, identified as TMK #(3)1-5-08:05, as shown on the attached maps, and contains 4.920 acres, more or less.

Although the zoning is for agriculture, history of the parcel leads to the conclusion that it is not suitable for farming. PCMC will request the issuance of a Special Permit from the Hawaii County Planning Department and Windward Planning Commission. The consistency of the project with the Puna Community Development Plan is discussed in 3.6.2.

3.2.2 Socioeconomic Characteristics and Recreation

The project site is .08 miles from the intersection of Highway 130 and the Pāhoa Bypass Rd., as well as the Woodland Center (Longs Drugs, Burger King) and Pāhoa Marketplace (Malama Market, Lex Brodies, Ace Hardware, CU Hawaii, etc.). It is also .04 miles from the Pāhoa Police and Fire Stations and immediately abuts the County Department of Water Supply pumping station. No adverse socioeconomic impacts are expected to result from the project. The project will have a positive economic impact, with construction generating temporary jobs, and hiring medical professionals will generate higher paying jobs than most commercial developments. Another positive impact is that patients will get treated sooner and be able to return to their productive activities (school, work) sooner than if they sought medical care in Hilo or not at all. The site has never been used recreationally by the public, so the project will not negatively affect recreation.

3.2.3 Cultural and Historic Resources

a. Cultural Impact Assessment

When the State Department of Transportation initiated the planning for the widening of Highway 130 (Kea'au-Pāhoa Road Widening Project) it subcontracted the Cultural Impact Assessment to Cultural Surveys, Hawai'i. The part of the PCMC project site that fronts the highway was included in the CIA. None of the resource persons interviewed identified the subject parcel as a known location for hunting and/or gathering and/or other cultural activities, nor were any of the adjacent parcels so noted. The parcel was not identified as providing access to areas used for cultural, recreational, religious or spiritual activities. either by CIA's resource persons or by the archeological surveys conducted for the Water Dept. parcel abutting or the one across the highway.

Malama O Puna published a Notice of Cultural Impact Assessment in the Hawaii Tribune-Herald, under the Legal Notices section of the Classified and also in the January, 2013 issue of the newsletter of the Office of Hawaiian Affairs, Kai Wai 'Ola. The text of the Notice was:

CULTURAL IMPACT ASSESSMENT NOTICE

Information requested by Malama O Puna of cultural resources or ongoing cultural practices at lands Pāhoa side of Dept. of Water Supply parcel .08 mile outside of Pāhoa,

mauka-Kea'au side of Highway 130, Keonepoko-Nui ahupua'a, Puna District, Island of Hawai'i, TMK No. (3) 1-5-8:05. Please respond within 30 days to René Siracusa at malamaopuna@yahoo.com.

The Tribune-Herald notice ran for one week in December, 2012. Neither notice elicited any responses. Malama O Puna will hold a scoping in Pāhoa to present the draft EA to the community, and results will be included in the Final document.

b. Archaeological Survey

Malama O Puna engaged Rechtman Consulting, LLC, to conduct the archaeologal survey. Robert Rechtman, Ph.D. has conducted several surveys of the area, and has considerable familiarity with it. These are listed in the references cited in the survey:

Desilets, M., and R. Rechtman

2004 Archaeological Survey of the DHHL-Maku'u Residential Subdivision (TMK: 3-1-5-08:03).

Kasberg, A., and R. Rechtman

2004 Archaeological Monitoring Report for the DHHL-Maku'u Water System (TMK: 3-1-5-08:01).

Rechtman, R.

2004 Request for SHPO Concurrence with a Determination of No Historic Properties Affected Pursuant to the National Environmental Policy Act and in Compliance with Section 106 of the National Historic Preservation Act (TMK: 3-1-5-07:17).

Rechtman, R.

2005 Request for SHPD Issuance of a No Historic Properties Affected Determination (TMK: 3-1-5-09:056).

Rechtman, R.

2012 An Archaeological Assessment Survey of TMK: 3-1-5-09:056.

The complete survey, An Archaeological Assessment Survey for the Proposed Puna Community Medical Center, is incorporated herein and is located in the REFERENCES section. It was accepted by SHPD in a letter dated April 22, 2013 by Archaeology Branch Chief Theresa K. Donham, also in the REFERENCES section. The survey concluded that development of the proposed medical facility will not significantly impact any known historic properties. However,

given the "density of the vegetation in portions of the study area and the concomitant impairment of ground visibility, it is recommended that a qualified archaeologist conduct a field inspection of the proposed development area after the initial grubbing has been completed and prior to any grading activities. If any archaeological resources are observed during this time they can be documented in a supplemental survey report. If no resources are observed then grading activities can commence. In the unlikely event that any unanticipated resources are unearthed during grading activities, DLNR-SHPD should be contacted as outlined in Hawai'i Administrative Rules 13§13-280."

c. Historic Resources

The subject parcel was leased to Puna Certified Nursery, and the back portion was cleared and developed, as noted by Rechtman. A rough unpaved driveway runs from Highway 130 through the middle of the lot to the rear. Rusted pieces of metal shade house frames and torn remnants of shade cloth are still in evidence, as well as some few nursery plants (areca palms, dracaena) that were left behind, and nonnative weeds. The nursery's General Lease No. S-5005 expired on March 30, 2002 and the site has remained vacant since then.

The highway frontage contains the largest assortment of nonnative weed species, as is to be expected. The widening of Highway 130 probably contributed its share of these, as is discussed in 3.1.4 Flora and Fauna. Rechtman noted in his survey that parts of the possible wall remnants and boulder alignment are "either the result of bulldozing activities or natural occurances and not culturally significant sites. No archaeological resources were identified during the current survey".

3.3 Public Roads, Services and Utilities

3.3.1 Roads and Access

On February 15, 2012, PCMC wrote to Sal Panem, District Engineer with the Hawaii State Department of Transportation, informing him of the plans for development of a medical center on this parcel. It was known at the time that DOT was designing the widening of Hwy. 130, and the letter was both a courtesy and a request for input. There was no response. The BLNR sent out a preliminary solicitation for comments prior to April 27, 2012 with no objection from those who responded. PCMC has no information as to whether or not DOT was one of the respondents.

The parcel fronts State Hwy. 130 and is sited in the middle of a straight-away with a long line of sight in both directions. The speed limit is 55 mph, but traffic has to slow periodically to allow for turns onto both DWS parcels on either side of the highway. There has been talk about the possible installation of a flashing light at that location, but nothing firm has been

announced. BLNR staff has verified that there is a legal access to the property off of Hwy. 130, also known as Kea'au-Pāhoa Road. This access is the unpaved road used by Puna Certified Nursery, Inc. prior to 2002 and is the access that PCMC intends to use, unless required otherwise.

3.3.2 Public Services and Utilities

Water is available to the project site, with the DWS pumping station immediately abutting to the north, and applicant will petition the DWS for service. If the petition is denied, applicant will construct two large catchment tanks - one for potable water which will be trucked in. Utility poles along the highway frontage carry electricity, telephone, and cable/internet lines, but do not enter the property. PCMC will be asking its architects to design their facility to be completely off-grid, with on-site backup systems. There is no sewer system to the parcel, or in the Puna District at all. However, because of an EPA mandate that requires an end to cesspools, a subcommittee of the Puna Community Development Plan Action Committee has submitted a CIP request to the County for funding for a sewer feasibility study for the Pāhoa area. If a sewer system is constructed prior to the groundbreaking for the emergency room, then PCMC will hook up to it. In the interim, PCMC is willing to install an above-ground system that is qualified to handle medical waste and is approved by and in conformance with the requirements of the State Department of Health. There will be no adverse impact to any public or private utilities. The construction of the emergency room and, ultimately, the comprehensive medical center will have no measurable adverse impact to or additional demand on public facilities such as schools, police or fire services, or recreational areas.

3.4 Secondary and Cumulative Impacts

Due to the type of development planned for the subject parcel, the proposed project would not produce any major secondary adverse impacts, such as population changes or effects on public facilities. It would entail more traffic slowing for making the turns onto the site, but this is occurring anyway for the water fill-up facility and the rapid population growth, and it appears that the State DOT is already planning to address this.

Cumulative impacts result when several projects that individually have limited impacts may combine to produce more severe impacts or conflicts in mitigation measures once implemented. The adverse impacts of construction involve temporary disturbances to air quality, noise, traffic and visual quality. The precautions to be taken during construction would mitigate these to the greatest extent possible. The lack of immediately sited residences decrease the usual expected construction impacts. And the long term benefits of a medical facility far outweigh those temporary impacts.

3.5 Required Permits and Approvals

With publication in the Environmental Notice, the applicant will provide copies of the draft and final Environmental Assessments to the relevant government agencies for their comments; those received during review of the draft EA will be incorporated in the final EA. Once the EA process is completed, and a FONSI (Finding of No Significant Impact) granted by the (OEQC) Office of Environmental Quality Control, the BLNR is expected to approve the direct lease. The County Planning Department's previous Director, Bobby Jean Leithead Todd has assured PCMC that it will support the project and the Special Permit that would be required. The BLNR's preliminary solicitation to various agencies received a response from the Planning Department, indicating that a Special Permit will be required. The Hawaii County Fire Department, when solicited, responded that they request that the applicant follow the most current fire codes in the development of the project. With the direct lease and as part of the Special Permit process, PCMC will once again solicit comments from the relevant agencies.

For construction to take place, the applicant will have to submit its plans to the County Department of Public Works, Building Division and the Environmental Management Department for grubbing and grading permits, building permits, and whatever other permits and approvals may be required. The State Department of Health will also require certifications, plans and other documents. If any cultural remains are discovered during the land clearing process, all work in the area will cease until a certified archaeologist can inspect, suggest mitigation, and process the necessary paperwork with SHPD.

3.6 Consistency with Government Plans and Policies

3.6.1 Hawaii County General Plan

The General Plan for the County of Hawaii is the document expressing the broad goals and policies for the long-range development of the Island and County of Hawaii. The plan was adopted by ordinance in 1989 and revised in 2005. The General Plan's Land Use Allocation Guide Map designates the subject parcel as Agriculture, and the County CZO as 20-acre Agriculture. Thus, since the parcel is 5 acres, it is a 'non-conforming' parcel. (BLNR staff have verified that it is a legally subdivided lot.) The General Plan is organized into 13 elements, with policies, objectives, standards and principles for each. There are also discussions of the specific applicability of each element to the nine judicial districts comprising the County of Hawaii. Below are pertinent sections followed by a discussion of conformance.

ECONOMIC GOALS

(a) Provide residents with opportunities to improve their quality of life through

economic development that enhances the County's natural and social environments.

(b) Economic development and improvement shall be in balance with the physical, social and cultural environments for the island if Hawaii.

(c) Provide an economic environment that allows new, expanded or improved economic opportunities that are compatible with the County's cultural, natural, and social environment.

Discussion: The proposed project is in balance with the natural, cultural and social environment of the County and, specifically of the Puna District. The project would not only create temporary construction jobs for local residents, and would indirectly boost the economy through construction industry purchasess from local suppliers, but medical equipment and supplies would also be purchased locally. Presently PCMC employees are all Puna residents, and the expanded medical facility would provide permanent full-time employment for even more highly skilled professional workers. Very few, if any, of the employees would be earning low wages. The expanded facility would be able to offer jobs to the new graduates of our UH Medical, Pharmaceutical and Nursing Programs. A multiplier effect takes place when these employees spend their income for food, housing and other living expenses in the retail sector of the economy. Such activities are in keeping with the overall economic development of the island.

ENERGY GOALS

(a) Strive towards energy self-sufficiency for Hawaii County.

(b) Establish the Big Island as a demonstration community for the development and use of natural energy resources.

Discussion: The applicants plan to utilize solar electric and hot water with alternate energy backups is consistent with these goals. Ample windows in the building design will minimize the need for artificial light. The facility will serve as a model for future medical facility development that is sustainable.

ENVIRONMENTAL QUALITY GOALS

Maintain and, if feasible, improve the existing environmental quality of the island.

Discussion: The Applicant plans to control the nonnative plants currently on the site, with a goal of totally eliminating them. Also planned is to leave as much of the existing native vegetation as possible undisturbed, using it as part of the landscaping plan. The landscaping plan will also bring in other appropriate natives for outplanting. In addition, a medicinal plants garden is planned. The environmental quality of the parcel will thus be improved and act as a demonstration showing how construction and development can utilize endemic plant species.

PUBLIC FACILITIES GOAL:

Encourage the provision of public facilities that effectively service community needs and seek ways of improving public service through better and more functional facilities which are in keeping with the environmental and aesthetic concerns of the community.

HEALTH AND SANITATION POLICY

The County should encourage the development of new or improvement of existing health care facilities to serve the needs of Hamakua, North and South Kohala, and North and South Kona. The relevant STANDARDS are:

- Hospitals should be on sites capable of handling moderate expansion of facilities. Quiet surroundings, convenient and adequate access, and compatibility with adjoining uses shall be required. [The project site meets these criteria.]
- Hospitals shall be served by a public sewerage system or have self-contained sewerage systems. Hospital solid waste disposal methods shall be by incineration. [See 3.1.6]

Discussion: The section of the Hawaii County General Plan dealing with Puna fails to mention any courses of action relating to the provision of Health Services, as do the Public Facilities and Health and Sanitation sections. However, this omission was subsequently rectified in the Puna Community Development Plan (see 3.6.2 below).

3.6.2 Puna Community Development Plan

The section on MANAGING GROWTH, 3.3 SOCIAL SERVICES AND HOUSING, is prefaced with the statement, "Puna's high percentage of low-income residents tends to increase the need for social services, yet discourages private health care providers from locating in Puna due to insurance issues." The issues in question are theLava Zone designations, with most of Puna being in lava zones 1 or 2. It is not only hard to find insurance policies to cover these zones, but banks do not consider projects in these zones to be good risks.

3.3.1 Goals (a): Puna residents have improved access to emergency and primary medical care and preventive public health programs.

3.3.2 Objectives (a): Seek additional locations for medical/substance abuse/senior home care treatment facilities in both lower and upper Puna.

3.3.3 Actions (a): Develop a centrally-located, 24-hour, full-service medical facility, with trauma care, in Puna. Establish multiple clinic level facilities offering primary medical and dental services in village centers in Upper and Lower Puna.

(b): Establish "one-stop centers" at Pāhoa...to provide referrals, support

and advocacy related to the following issues: Access to medical services and complementary health services, including nursing programs for homebound clients...

In the next section, 3.4 PUBLIC SAFETY AND SANITATION SERVICES, the first objective is: 3.4.2 Objective (a): Provide additional locations for emergency services to reduce the response time to a larger percentage of residents.

Thus, the Puna Community Development Plan (PCDP) acknowledges the need and fills in what is missing from the General Plan. The PCDP was passed as an ordinance amending the General Plan in August 2008. The Plan mandates an Action Committee to implement its provisions, under the umbrella of the Hawai'i County Planning Department. That committee has maintained the creation of a comprehensive medical center with trauma care as one of its top priorities, and it has written support letters to help fundraising efforts.

3.6.3 Special Management Area

The property is situated at the 1,000 - 1,800 foot elevation and several miles from the shoreline. It is therefore not in the Special Management Area.

3.6.7 County Zoning Ordinance

The project site is zoned Agriculture 20 acres. However, the SCS Soil Series identifies it as almost bare pahoehoe, and it is therefore not suited for agriculture. That the only tenant vacated it, and it has since remained vacant and unencumbered, testifies to this. The County Planning Department has therefore indicated that a Special Permit would be favorably reviewed by the Department.

3.6.8 Federal Health Designations and Medical Waste

The State of Hawai'i Primary Care Needs Assessment Data Book 2012, published biennially by the Family Health Services Division of the Department of Health, has once again stated that the federal government has identified the entire island of Hawaii as being a MUA/P (Medically Underserved Area/Population) with a HPSA (Health Professional Shortage Area). The island also has federal designations as being Dentally and Mental Health Underserved. Therefore, any medical facility cannot but fail to improve these ratings.

As stated above, all medical waste generated at the proposed facility will be handled in accordance with standards and equipment approved by the Department of Health, and therefore there will be no adverse impacts on air, soil or water quality.

PART 4: DETERMINATION, FINDINGS AND REASONS

4.1 Determination

Based on the findings below, and upon consideration of comments and support letters already received based on discussions of the project, and comments expected during the scoping phase, the Hawai'i State Board of Land and Natural Resources is expected to determine that the Proposed Action will not significantly alter the environment, as impacts will be minimal and benefits great, and is therefore expected to issue a Finding of No Significant Impact (FONSI).

4.2 Findings and Supporting Reasons

1. The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources. No valuable or cultural resource would be committed or lost. Common native plants are present but native ecosystems would not be adversely affected. As much of the on site native vegetation as possible would be retained, and invasive alien plant species would be replaced with native plants appropriate to the area as part of the landscaping design. No archaeological resources are present. The driveway and rear of the parcel were previously cleared by the last lessee and host most of the weeds, which will be removed. No valuable cultural resources and practices, or access to same, are present.

2. The proposed project will not curtail the range of beneficial uses of the environment. No restriction of beneficial uses would occur by the development of an emergency room and comprehensive medical center on this lot.

3. The proposed project will not conflict with the State's long-term environmental policies. The State's long-term environmental policies are set forth in Chapter 343, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The project is minor (selected portions of five acres) and basically environmentally benign (no endangered or species of concern, retention of current native vegetation and incorporation of same in the landscaping plan, outplanting of additional native plants suitable to the site, etc.)., and it is thus consistent with all elements of the State's long-term environmental policies.

4. The proposed project will not substantially affect the economic or social welfare of the community or State. Actually, the project will affect the economic and social welfare of the community and the State, but for the better. It will provide better-paying jobs and much needed health care services close to the center of the fastest growing rural population in the State.

5. The proposed project does not substantially affect public health in any deterimental way. The project will substantially affect public health in a positive way, by providing essential services now lacking.

6. The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities. The project would not produce any detrimental secondary impacts to population or public facilities.

7. *The proposed project will not involve a substantial degradation of environmental quality.* The project is environmentally benign and would not contribute to environmental quality degradation.

8. The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat. Thorough survey has determined that no rare, threatened or endangered species of flora or fauna are known to exist on or near the project site, and thus none would be affected by project activities.

9. The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions. Development of the complete project will be modular and constructed in phases, as funding permits. Each phase of construction, spaced several years apart, will involve only temporary disturbances to traffic, air quality, noise and visual quality during construction. A buffer of o'hia and 'uluhe that will be left in place along the highway frontage will mitigate visual impacts. Best construction practices as described above will mitigate the temporary disturbances to traffic, air quality and noise. The project site is fairly isolated from residences, the closest being separated from the site by a five-acre parcel. No cumulative adverse construction effects are expected.

10. The proposed project will not detrimentally affect air or water quality or ambient noise *levels.* No substantial effects to air, water, or ambient noise would occur. Brief, temporary effects would occur during construction and would be mitigated.

11. The project does not affect nor would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area. The project area is not located in any of the above named areas. The entire island of Hawai'i is geologically hazardous, but the project site is in hazard zone 3, which is at lower risk than zones 1 and 2: the site is not in an active zone and it is not adjacent to or downslope of an active rift zone.

12. The project will not substantially affect scenic vistas and viewplanes identified in county

or state plans or studies. The current view from Hwy. 130 is across the lot facing *mauka*. There is no view of either ocean or mountains, only of the existing vegetation and sky. The structures planned for the parcel will be low and will not substantially affect what view there currently exists.

13. *The project will not require substantial energy consumption.* Negligible amounts of energy input would be required during construction. The plan to utilize solar energy and hot water augmented by on-site alternative energy backup, will result in a very small consumption level.

For the reasons above, the proposed project will not have any significant effect in the context of Chapter 343, Hawai 'I Revised Statutes as amended and sections 171-13, 171-16 and 171-43.1.

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REFERENCES

Hawaiʻi County Planning Department.

2008 Puna Community Development Plan.

Juvik and Juvik

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Komori, Eric

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Major, Maurice

1992 An Archaeological Inventory Survey of the Pohoiki #2 Transmission Line Corridor, Puna District, Island of Hawai'i. Applied Research Group, Bernice P. Bishop Museum, Honolulu.

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Palmer and Associates Consulting.

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Puna Community Medical Center Business Plan.

Rechtman, Robert Ph.D and Lauryl Zenobi, BA.

2012 An Archaeological Assessment Survey for the Proposed Puna Community Medical Center.

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Uniform Building Code 1997

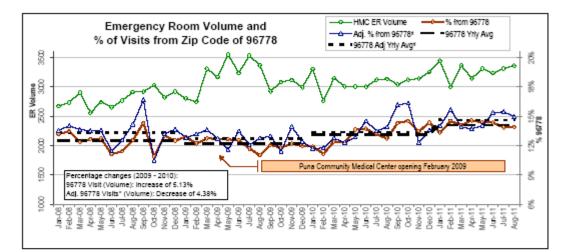
Wolf, E., and J. Morris.

1996 Geologic Map of the Island of Hawai'i, Geologic Investigations Series Map.

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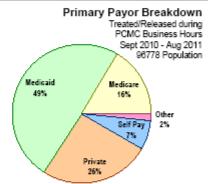
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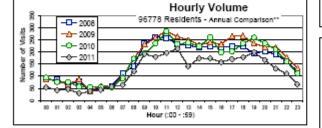
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- Table 2.Emergency Room Volume and % of Visits from Zip Code of
96778

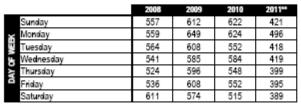


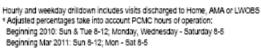
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ota	Treated and Released	35090	31386	21461
F	Treated and Released - during PCMC Hrs	14683	13326	9655

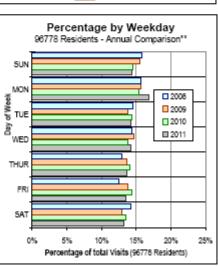
96778	Patients Seen	4513 12%	4744 13%	3604 14%
	Treated and Released	4211 12%	3991 13%	2937 14%
	Treated and Released - during PCMC Hrs	1828 12%	1748 13%	1378 14%











** 2011 data includes Jan - Aug only

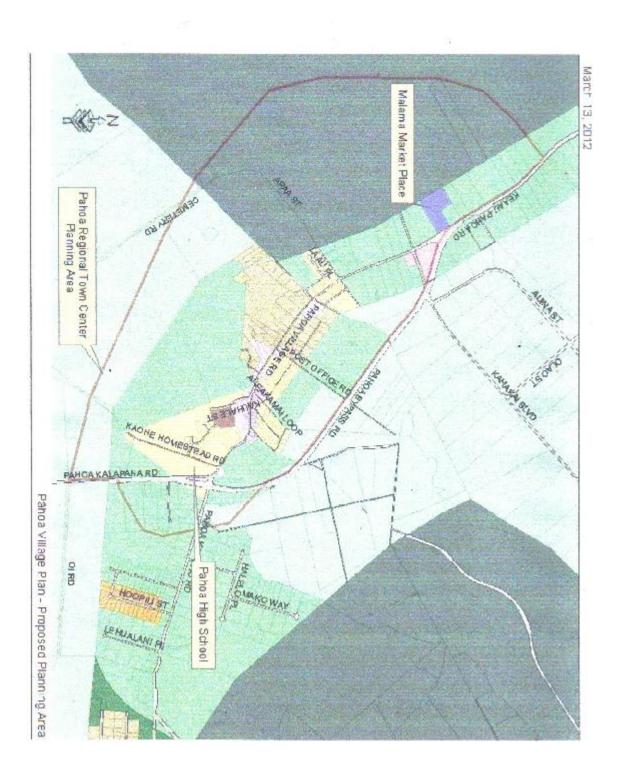
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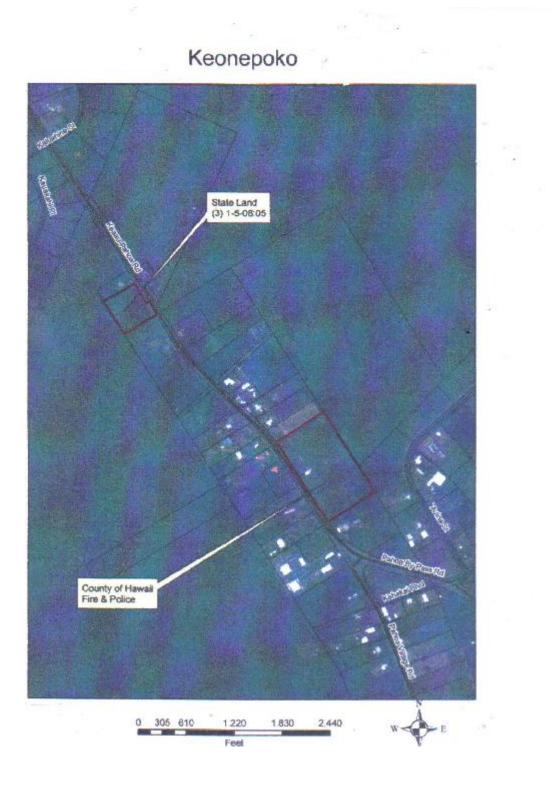
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Puna Community Medical Center opening February 2009Emergency Room Volume and
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2011**
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Treated and Released
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Treated and Released - during PCMC Hrs
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9677
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Patients Seen
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4744
13%
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14%
Treated and Released
4211
12%
 3991
 13%
1080
14%
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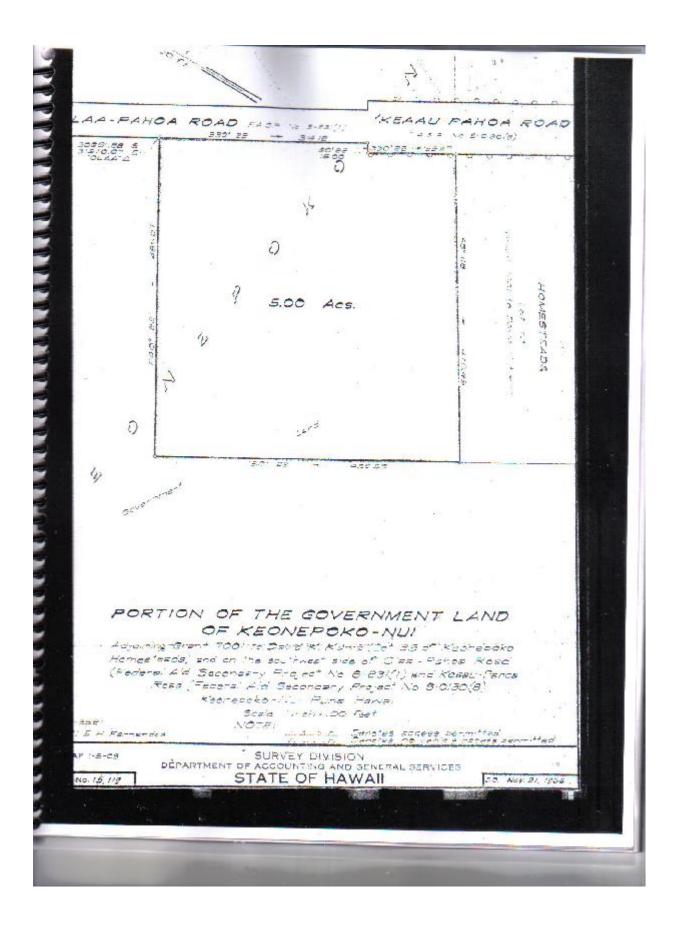
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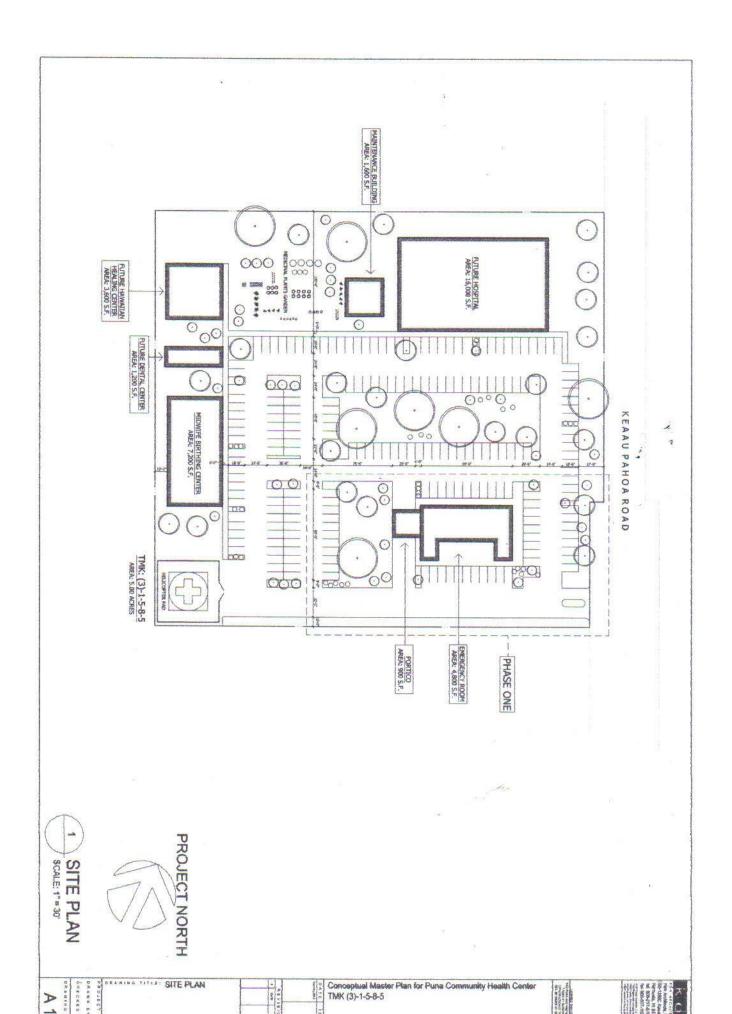
LIST OF MAPS

- Map 1. Area Zoning Map
- Map 2. Keonepoko Area Map
- Map 3. Site Map
- Map 4. Site Plan









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SUPPORT LETTERS

November 25, 2008	US Attorney Edward H. Kubo, Jr.
July 12, 2011	Dan Taylor, Chair, Puna Community Development Plan Action Committee.
February 15, 2012	Howard N. Ainsley, CEO, Hilo Medical Center.
February 23, 2012	William P. Kenoi, Mayor, County of Hawaiʻi
March 23, 2012	Robert K. Lindsey, Jr., Trustee - Hawaii 'i Island, Office of Hawaiian Affairs.
June 3, 2013	Russell E. Ruderman, Senator District 2, Hawai'i State Senate.
July 1, 2013	Zendo Kern, Council District 5, Hawai'i County Council.

U.S. Department of Justice



United States Attorney District of Hawall

PJKK Foderal Building 300 Ala Maana Bhd. Kuum 6-156 Mandula Hawaii 96850

(648) 547-2539 (747-2938) 547-2938

November 25, 2008

HMSA Foundation

Subject: Support for Application for Grant by Pana Community Medical Center.

To Whom It May Concern:

Please allow me to strongly support the application by the Puna Community Medical Center for grant funding by your Foundation.

As the United States Attorney for Hawaii, I am keenly aware of those disadvantaged areas in Hawaii which are in need of assistance. The area of Puna is uniquely in a crisis situation and in dire need of your help.

Several years ago, I fought for a federal designation that Puna be considered a federally protected Weed and Seed area. This designation was due to the high statistical instances of crime, drug abuse, neglect, income and wages, uncomployment, and other important factors which signified that they were a depressed community. Since that point in time, I have seen the community fighting back and trying to improve the quality of their lives.

As you know, however, the quality of life issues are not only based on reducing crime and improving the educational opportanities of people. A very important factor is also healthcare. Right now, I know that our citizens in Puna have to travel a long way just to seek decent modical attention. Many times, because of no transportation, gas, or the length of travel, our citizens forego visiting a doctor for their important medical needs. This should never be so, especially when we ourselves are in a position and are able to help them improve their way of life.

That is why I am completely and strongly behind the community and the Puna Community Medical Center in its request for funding from your Foundation to open a argent care facility in Pahoa. Because of your kind hearts and your compassion, you have the ability to help thousands of our citizens get the argent care they so desperately need. Whereas I can protect them from crime, and help them make their community safer, - you can help them live longer and live heathier lifestyles.

It is universally known how important healthcare is today. Your grant will allow a disadvantaged community meet the goals of caring for and helping our elders, our children, and

William P. Kenoi Mayur



RECEIVED JUL 1 4 2011

BJ Leithead Todd

Margaret Masunaga Deputy Director

County of Hawai'i PLANNING DEPARTMENT

PUNA COMMUNITY DEVELOPMENT PLAN ACTION COMMITTEE

Aupuni Center • 101 Pacabi Street, Snite 3 • Hio, Hawai'i 96720 Prone (808) 961-8288 • Pax (808) 961-8742

July 12, 2011

RE: SUPPORT LETTER

To Whom It May Concern:

The Puna Community Development Plan (PCDP), which was passed by ordinance by the Hawaii County Council in August, 2008, included the formation of an Action Committee to oversee the implementation of the plan. This letter has been approved by said committee.

The PCDP, with input from over 1,300 residents, recognized the need for access to medical care in this rural, underserved area, and the first Action listed in the Managing Growth – Social Services and Housing section, is "Develop a centrally-located, 24-hour, full-service medical facility, with trauma care, in Puna." Even prior to the passage of the plan, a group of residents involved in the creation of the PCDP had already begun the process to implement this, by forming the non-profit Puna Community Medical Center (PCMC).

PCMC is developing in phases, with the first phase being an acute care clinic at the Pahoa Marketplace. It opened its doors in February, 2009 and to date has provided health care services. 7 days a week, no appointment needed, to more than 5,700 individuals and over 10,000 patient visits. They care for almost 500 patients a month, about 18% of whom have no medical coverage or ability to pay. They are now ready to expand their services to meet the need of a rapidly growing population.

The PCDP Action Committee is in full support of the PCMC and its vision, and hereby informs potential future funders, as well as planners and permitting agencies, that the incremental expansion of PCMC is in conformance with the PCDP. We believe that a medical facility will be an appropriate addition to the Pahoa Village Center area.

Sincerely,

- Jack

Dan Taylor, Chair Puna Community Development Plan Action Committee

cc: Bobby Jean Leithead Todd, Planning Director René Siracusa, President Puna Community Medical Center 15-2662 Pāhoa Village Rd. Pāhoa, HI 96778

Hawai'i County is an Equal Opportunity Provider and Employer



Fobruary 15, 2012

Mr. Dan Damizio Clinic Director Puna Community Medical Center 15-2662 Pahoa Village Road #303 Pahoa, HI 96778

Dear Mr. Danizio:

Subject: Statement of Support Puna Community Medical Center Emergency Room

Hilo Medical Center (HMC) operates the State's second busiest emergency room, treating more than 40,000 patients annually. Puna, which is a portion of HMC's service area, is the fastest growing area of the State. Clearly, these two factors combined illustrate the need for an additional emergency room in the District of South Hilo. On behalf of the East Hawaii Region of the Hawaii Health System, I wish to express support of Puna Community Medical Center's (PCMC) development of a free-standing Emergency Facility in Pahoa.

HMC's emergency room is 35 miles from Puna, and many residents do not have transportation for the trip to HIIo. Ambulance response times, coupled with the drive to HMC on a two lane road, equate to an hour's journey, even when the traffic is light. Improved access to emergency services are needed for the residents of Puna.

PCMC is a valued partner in the provision of health services to our East Hawall communities. We endorse the Center's strategic plans to develop a number of health programs to serve this fast growing area of the State. In addition to the emergency facility, PCMC's planned adult day care center would be an asset as would a birthing center.

Hilo Medical Center endorses PCMC's plan to ensure high quality care is available in Puna. We also applaud the Center's vision for air evacuation [helicopter landing], so that this valuable service is available to patients that regular immediate access to more intense levels of care at HMC's Level III Trauma Center.

HMC stands ready to participate in the planning of this facility within the guidelines established by the Puna Community Development Plan.

Sincerely Howard N. Ainsley

HNA:sd

1190 Waiannenue Ave. Hillo Hawat'i 96720-2020 Plui 808-974-4700 - Fax: 808-974-4746

Elevatii Health Sporters, Carpenata ar

William P. Kenoi Mayor



William T. Takaba Managing Director

Walter K.M. Lau Deputy Managing Director

County of Hawai'i

Office of the Mayor

25 Aupuni Scieet, Suile (2005) + 11 Jo, Hawai': 96720 + (8081561 8241) + Eax (8081961 2083) KONA: 74-5044 And Koalostadole Hwy, Bidg, U. + Kahua-Kena, Hawai': 96746 (808) 323-4444 + Eax (805) 523-4440

February 23, 2012

Mr. Dan Domizio Clinical Director Puna Community Medical Center 15-2662 Pahoa Village Rd #303 Pahoa, HI 96778

RE: Statement of Support for Puna Community Medical Center Emergency Room

Dear Mr. Domizio:

I am pleased to provide this letter of support for the Puna Community Medical Center's development of a free-standing emergency facility in Pahoa.

This will help serve one of the fastest growing districts on the island and address one of our most critical needs, improved access to emergency services in our rural areas.

Since opening in 2009, The Puna Community Medical Center has provided comprehensive primary healthcare visits to over 7,000 clients, and over 3,000 patients from Puna are transported annually to the Hilo Medical Center's emergency room for trauma care.

Puna experiences some of the highest rates of poverty, health disparities than anywhere else in the State of Hawai'i and this much-needed project will be of great benefit to the community.

Aloha,

William P. Kenoi MAYOR

Coarty of Hawai'i is an Equal Opportunity Provider and Employer.

Puna Community

Medical Center Draft Environmental Assessment

23 Malaki 2012

Mr. Dan Domizio Clinical Director Puna Community Medical Center 15-2662 Pahoa Village Road #303 Pahoa, HI 96778

Aloha Mr. Domizio:

I want to applaud the community based effort and strategy the Puna Community Medical Center (PCMC) is employing in developing and establishing a free standing Emergency Facility for Puna in Pahoa; an effort I wholeheartedly support and endorse.

Puna is the fastest growing region in the State of Hawai'i; the nearest Trauma Center is at the Hilo Medical Center (HMC); a half hour drive north on a two lane highway. A major accident on Highway 130 equates to gridlock; a problem if there is a need to move a patient by ambulance from Puna to Hilo within the 'golden hour.' My understanding is since Puna Community Medical Center opened its doors in 2009 it has provided medical services to 15,000 clients; cared for over 7,500 individuals; reduced the number of local ambulance runs and lessened referrals to HMC's emergency room.

Once Puna has its own Emergency Facility the citizens and residents of the largest district on Hawai'i Island will have the access to emergency services they truly deserve and sorely need; quickly, efficiently and close to home. I wish you well in this worthy endeavor and noble cause.

With kind regards,

Robert K. Lindsey, Jr. Trustee – Hawai'i Island Office of Hawaiian Affairs



The Senate

STATE CAPITOL HONOLULU, HAWAII 96813

June 3, 2013

Department of Land and Natural Resources Attn: Board Members 1151 Punchbowl Street, Room 130 Honolulu, Hawaii 96813

RE: Support of the Puna Community Medical Center Lease of State land TMK 3-1-5-008:005 at Keonepoko Nui Ahupua'a

Dear Board Members,

I am writing to express my support of the lease to the Puna Community Medical Center (PCMC). The Puna community has the worst socio-economic statistics in the entire state, and has a Federal designation as a medically-underserved area with provider shortages. With Puna having the highest growth rate of 24% in the State, the area is in dire need of a medical facility.

PCMC currently sees 500-600 patients a month and provides care for patients that are underinsured, uninsured or those unable to pay. The facility is open 7 days a week, including holidays.

The parcel for the Puna Community Medical Center Lease is off of Highway 130 and is in an area with a long straight-away with a good line of sight. The State Department of Transportation plans to install a flashing light (short term) and will later install a traffic signal to address traffic concerns.

PCMC is ready to provide emergency room services, a clinical laboratory and x-ray facility as their next phase and the lease is crucial to the expansion of services.

Thank you for allowing me the opportunity to express my support of this worthwhile project.

Sincerely,

F

Russell E. Ruderman, Senator District #2 Hawaii State Senate 415 S. Beretania Street, Room #217 Honolulu, HI 96813

Zendo Kern Council Member Crimical District 5

Mailing Address: Hawai i County Bunding 25 Aupuni Siree! Hilo, Howa:'' 96729



Hawai'i County Council County of Hawai'i

July 1, 2013

Rene Siracusa, President Puna Community Medical Center Pahoa, Hawai'i 95778

Ra: Support for Puna Community Medical Center

Aloha Rene,

I'm writing today in strong support of an agreement to lease State lands in the Kconepoko Nui Ahupua'a, near Pahoa for the Puna Community Medical Center. As a County Council representative for the district, I fully understand the need for emergency medical services, a clinical laboratory and X-ray services in Pāhoa. Pāhoa currently has one ambulance, one clinic and the urgent care center. Additional ambulances must come from Kea'au or Hilo which can take up to thirty minutes. This is unacceptable. The proposed emergency facility physicians will be able to administer the first few critical minutes of care almost immediately

According to the 2010 Census, the district of Puna experienced the highest rate of growth (24%) in the state. Located on the East side of Hawai'i Island. Puna is similar in size to the island of O'ahu, with a population of just over 40,000. Although Pune has experienced an increase in population the delivery of important services has not changed. Most of the district is extremely rural, lacking even the most basic infrastructure with many of its residents living at or below poverty level. For these reasons Puna has received the Federal designation of a "medically-underserved" area with "provider shortages".

I urge federal, state and county officials to support this or any effort to establish emergency services in Pähoa for the Puna district. It is my hope that officials will take this opportunity and partner with your nonprofit group to secure land, grants, permits, and funding to build and operate a free standing emergency facility in Puna. Your organization's record of successes with the Urgent Care facility in Pahoa demonstrates that you have the capacity and commitment to succeed in realizing this project.

I'm impressed and grateful for your organization's willingness to address this serious issue and undertake this important project. You remind us of the wise words of Margret Mead: "Never doubt that a small group of thoughtful committed citizens can change the world; indeed, it's the only thing that ever has." Thank you for your continued commitment to this project and for all you do for our community.

Thank you,

Phone: (808) 951-8263 (808) 961-8912 Fan: Email skern@eo.hawaii.hi.wr

Planning Committee Chair

Environmental Management Committee Chair

OTHER DOCUMENTS

- Approval in Concept for the Issuance of a Direct Lease April 27, 2012, BLNR.
- Cultural Impact Assessment Notice, Hawaii Tribune-Herald Advertising Receipt. December 3, 2012.
- Cultural Impact Assessment Notice (email acknowledgement), *Ka Wai Ola Newspaper*, Office of Hawaiian Affairs. December 4, 2012.

Deed Exhibit "A"

- FreemanWhite, Inc. Proposal and Agreement for Consulting Services, planning study Phase One. January 10, 2012.
- FreemanWhite, Inc. Proposal and Agreement for Consulting Services, planning study Phase Two. January 10, 2012.
- Letter to Sal Panem, District Engineer, State Department of Transportation. February 15, 2012.
- Palmer and Associates Consulting 2012 Cover letter, botanical survey, plant list.

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES Land Division Honolulu, Hawaii 96813

April 27, 2012

Board of Land and Natural Resources State of Hawaii Honolulu, Hawaii PSF No.: 12HD-024

Hawaii

Approval in Concept for the Issuance of Direct Lease to Puna Community Medical Center for Comprehensive Medical Center Purposes, Keonepoko Nui, Puna, Hawaii, Tax Map Key: 3rd/1-5-08:05.

APPLICANT:

Puna Medical Center, a Hawaii non-profit 501 (c) (3) corporation.

LEGAL REFERENCE:

Sections 171-13, 171-16 and 171-43.1, Hawaii Revised Statutes, as amended.

LOCATION:

Portion of Government lands of Keonepoko Nui, Puna, Hawaii, identified by Tax Map Key: 3rd/ 1-5-08:05, as shown on the attached maps labeled Exhibits A.

AREA:

4.920 acres, more or less.

ZONING:

State Land Use District:agricultureCounty of Hawaii CZO:20-acre agriculture

TRUST LAND STATUS:

Section 5(b) lands of the Hawaii Admission Act

DHHL 30% entitlement lands pursuant to the Hawaii State Constitution: NO

BLNR - Issuance of Direct Lease to Puna Community Medical Center

CURRENT USE STATUS:

Vacant and unencumbered.

CHARACTER OF USE:

Comprehensive medical center purposes.

LEASE TERM:

Thirty five (35) years

COMMENCEMENT DATE:

The first day of the month to be determined by the Chairperson.

ANNUAL RENT:

Pursuant to HRS §171-43.1, and the minimum rent policy established by the Board at its meeting of May 13, 2005 under agenda item D-19, the annual rent will be set at \$480.00.

METHOD OF PAYMENT:

Semi-annual payments, in advance.

RENTAL REOPENINGS:

At the 10th, 20th and 30th years of the lease term, by staff or independent appraisal.

PERFORMANCE BOND:

Twice the annual rental amount.

PROPERTY CHARACTERISTICS:

Utilities – water, electricity, telephone Slope – moderate Elevation – 1,000 feet to 1,800 feet Rainfall – exceeds 100 inches SCS Soil Series – almost bare pahoehoe. Land Study Bureau – University of Hawaii Legal access to property – Staff has verified that there is legal access to the property off of Route 130 also known as Keaau- Pahoa Road. Subdivision – Staff has verified that the subject property is a legally subdivided lot. Encumbrances – Staff has verified that there are no encumbrances on the property.

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

Applicant will have an environmental assessment prepared and published in accordance with the requirements of Hawaii Revised Statutes (HRS) Chapter 343 and Chapter 11-200, Hawaii Administrative Rules (HAR).

DCCA VERIFICATION:

Place of business registration confirmed:	YES X	NO
Registered business name confirmed:	YES <u>X</u>	NO
Applicant in good standing confirmed:	YES X	NO

APPLICANT REQUIREMENTS:

Applicant shall be required to:

- 1) Pay for the costs of public notice pursuant to HRS Section 171-16;
- 2) Publish an environmental assessment with the Office of Environmental Quality Control in compliance with the HRS Chapter 343 and HAR Chapter 11-200, and obtain Finding of No Significant Impact (FONSI) for the project.

REMARKS:

This property was previously leased to Puna Certified Nursery, Inc. under General Lease No. S-5005 for intensive agriculture purposes. The lease expired on 3/30/2002 and land has been vacant from that date.

The Puna Community Development Plan, now a part of the County of Hawaii General Plan since 2008, has as a goal, a comprehensive medical center to serve the Puna makai population. The Puna District has a federal designation as an area with provider shortages and is a medically underserved community.

Puna Community Medical Center (PCMC) formed as a grassroots nonprofit entity in May 2007 for the purpose of addressing this need. PCMC began with an acute care facility that has been in operation since February 2009. To date, PCMC has managed over 14,000 patient encounters.

Puna's population is the fastest growing in the state and its health care needs are critical. Services have not kept pace with growth. As a non-profit corporation serving a rural population in an economically depressed area, PCMC cannot afford the commercial land prices in order to expand and provide greater services. PCMC proposes to utilize the State land to build and operate a modular comprehensive medical center including a 24/7 BLNR - Issuance of Direct Lease to Puna Community Medical Center

> emergency room, clinical laboratory, x-ray facility, dental clinic, pediatric clinic, etc. These elements will be built incrementally, as funding permits. The site will also include an administration building and equipment storage structure, parking lot, large capacity cesspool/septic system, covered sidewalks and landscaping (Exhibit B).

The Applicant has not had a lease, permit, easement or other disposition of State lands terminated within the last five years due to non-compliance with such terms and conditions.

A preliminary solicitation for comments from various agencies was sent out with no objection from those who responded. The County of Hawaii, Planning Department indicated that a Special Permit for the proposed use will be required and the Fire Department has requested the Applicant follow the most current fire codes in the development of their project. Upon approval in concept from the Board for the issuance of a direct lease for medical center purposes, the Applicant will solicit comments from various agencies as part of the Environmental Assessment process.

<u>RECOMMENDATION</u>: That the Board:

That the Board, subject to the Applicant fulfilling all of the Applicant requirements listed above, approve in concept the issuance of a direct lease to Puna Community Medical Center, covering the State-owned parcel identified as Tax Map Key: 3rd/1-5-08:05 for a comprehensive medical center operation pursuant to Section 171-43.1 with the understanding that the approval in concept shall not be deemed to be an approval of a lease as staff shall return to the Board at a later date for approval of the lease disclosing the Environmental Assessment and its Finding of no Significant Impact (FONSI).

Respectfully Submitted,

Gordon C. Heit District Land Agent

APPROVED FOR SUBMITTAL:

liam J. Aila, Jr., Chairperson

EXHIBIT A

TMK: 3RD/ 1-5-08:05

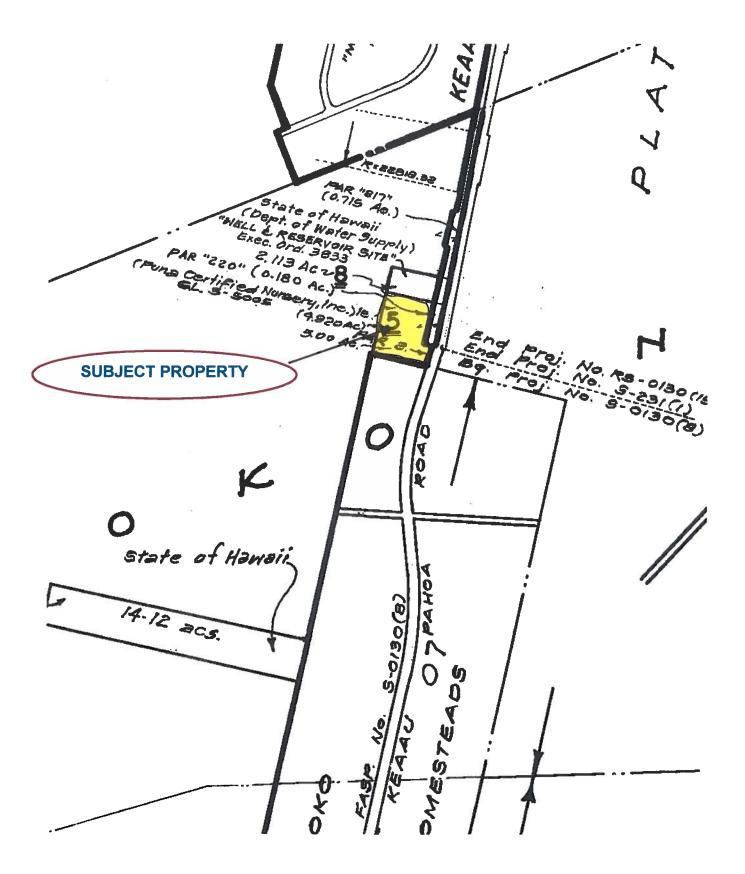


EXHIBIT A

Puna Community Medical Center



BLNR Issuance of Direct Lease to Puna Community Medical Center

Page

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Respectfully Submitted,

Gordon C. Heit District Land Agent

APPROVED FOR SUBMITTAL:

William J. Aila, Jr., Chairperson

Advertising Receipt

Hawaii Tribune-Herald

355 Kinoole St. PO Box 767 Hilo, HI 96721

Phone: 808.935.6619 Fax: 808.969.9100

Rene Siracusa P.O. Box 1520 Pahoa , HI 96778 Acct #: 13126742 Ad #: 00421567 Phone: (808)965-2000 Date: 12/03/2012 Ad taker: 160 Salesperson:

Sort Line: CULTURAL IMPACT ASSESSMENT NOT

Ad Notes: ofc rene 7x wed hth Legal Notice req. no affid.

kk

Classification 020

Description	Start	Stop	Ins.	Total
03 Hawaii Tribune-Herald	12/05/2012	12/11/2012	7	53.25

CULTURAL IMPACT ASSESS-MENT NOTICE. Information requested by Malama O Puna of cultural resources or ongoing cultural practices at lands Pahoa side of Dept. of Water Supply parcel .08 mile outside of Pahoa, mauka-Kea'au side of Highway 130, Keonepoko-Nui ahupua'a, Puna District, Island of Hawai'i, TMK No. (3) 1-5-8:05. Please respond within 30 days to Rene Siracusa at malamaopuna@yahoo.com

Ad Text:

CULTURAL IMPACT ASSESSMENT NOTICE. Information requested by Malama O Puna of cultural resources or ongoing cultural practices at lands Pahoa side of Dept. of Water Supply parcel .08 mile outside of Pahoa, mauka-Kea'au side of Highway 130, Keonepoko-Nui ahupua'a, Puna District, Island of Hawai'i, TMK No. (3) 1-5-8:05. Please respond within 30 days to Rene Siracusa at malamaopuna@yahoo.com **Payment Reference:**

Rene Siracusa CC NO. 1036 10/14 -55.38 Auth: 071511Y 233901001033

Total:	53.25
Tax:	2.13
Net:	55.38
Prepaid:	-55.38
Total Due	0.00

http://uk.mc1215.mail.yah... http://uk.mc1215.mail.yah...

MAIL

Re: Public Notice/Ho'olaha Lehulehu "Lisa E. Asato" <lisaa@oha.org> "Rene Siracusa" <malamaopuna@yahoo.com>

Aloha, we received your notice. It will run in the next (Jan) issue.

Mahalo nui,

Lisa Asato Ka Wai Ola Newspaper (808) 594-1925

Office of Hawaiian Affairs 711 Kapiolani Boulevard, Suite 500 Honolulu, HI 96813

On 12/3/12 9:44 AM, "Rene Siracusa" <

> wrote:

>Please print the attached in your next issue of Ka Wai Ola. >

>Mahalo,

>Rene Siracusa, President
>Malama O Puna

Tuesday, December 04, 20...

10:49:59 AM

12/4/2012

Monday, 3 December, 2012 16:19

EXHIBIT "A"

PORTION OF THE GOVERNMENT LAND OF KEONEPOKO NUI

Adjoining Grant 7001 to David K. Kama (Lot 23 of Keonepoko Homesteads) and on the southwest side of Olaa-Pahoa Road (Federal Aid Secondary Project No. S-231 (1) and Keaau-Pahoa Road (Federal Aid Secondary Project No. S-0130 (8).

Keonepoko Nui, Puna, Hawaii

Beginning at the north corner of this parcel of land, and on the southwest side of Olaa-Pahoa Road (Federal Aid Secondary Project No. S-231 (1), the coordinates of said point of beginning referred to Government Survey Triangulation Station "OLAA" being 30,681.88 feet South and 31,510.67 feet East, as shown on Government Survey Registered Map 2191 and running by azimuths measured clockwise from True South:-

	330*	22'	314.12	feet	along the southwest side of Olaa-Pahoa Road (Federal Aid Secondary Project No. S-231 (1);
2.	60°	22'	15.00	feet	along a jog on the southwest side of Keaau-Pahoa Road (Fed- eral Aid Secondary Project No. S-0130 (8);
3.	330°	22'	132.57	feet	along a jog on the southwest side of Keaau-Pahoa Road (Fed- eral Aid Secondary Project No. S-0130 (8);
4.	58°	48'	470.45	feet	along Grant 7001 to David K. Kama (Lot 23 of Keonepoko Homesteads);
5.	150°	22 *	459.55	feet	along the remainder of the land of Keonepoko Nui;
6.	2 40°	22'	485.27		along the remainder of the land of Keonepoko Nui, to the point of beginning and containing an AREA OF 5.00 ACRES.

Vehicle access into and from Keaau-Pahoa Road, Federal Aid Secondary Project No. S-0130 (8), shall not be permitted over and across Course 3 of the above described portion of the government land of Keonepoko Nui.



Healthcare Strategies Business Operations Technology Facilities

8845 Red Oak Blvd. Charlotte, NC 28217-5593 704.523.2230 Fax 704.523.2235

PROPOSAL AND AGREEMENT FOR CONSULTING SERVICES Puna Community Rapid Planning Study Phase One Pahoa, Hawaii

January 10, 2012

FreemanWhite, Inc. proposes to provide services defined in the following agreement for a **Rapid Planning Study** for the **Puna Community Medical Center, Pahoa, Hawaii**. The services, terms, and conditions specified below will constitute the Agreement between **Puna Community Medical Center** and **FreemanWhite, Inc**.

Upon your written acceptance and return of one executed copy of the Agreement to the undersigned, we will commence with the scope of services defined herein.

Agreement between Architect and Consultant:

This Agreement is made as of the 10th day of January in the year of Two Thousand and Twelve

Between the Architect:	Puna Community Medical Center 15-2662 Pahoa Village Rd. Suite 306, PMB 8741 Pahoa, HI 96778
And the Consultant:	FreemanWhite, Inc. 8845 Red Oak Blvd. Charlotte, NC 28217-5593 (704) 523-2230 Fax (704) 523-2235

The Owner/Owner and the Consultant agree as set forth below.

ARTICLE 1 SCOPE OF CONSULTANT'S SERVICES

1.1 OBJECTIVE

The objectives of this Study is for the Consultant to deliver analysis, programming and conceptual planning services in a two phase project. During Phase One the Consultant will create a site plan, determine land requirements and construction cost estimate for your new Freestanding ED. Phase Two will be defined under separate contract.

1.1.1 Phase One

To accomplish the initial costing and site estimation foot print, the Consultant will require basic programming information and initial patient demand information. This information along with phone discussions with the Owner will allow the Consultant to create a preliminary site plan.

1.2 ASSUMPTIONS

This contract proposal is based on the following assumptions. Any changes in these assumptions during this engagement would be considered **Changes in Service** and would entitle the Consultant to additional compensation in accordance with **Article 4 Additional Services** below. This Contract Agreement is based on the following assumptions:

1.2.1 Rapid Plan Schedule

As noted in Paragraph 2.3, Phase One of this contract covers work to be completed over two phone conferences and a total of three weeks.

1.2.2 Consulting Services

This contract is for planning services and does not include detailed architectural or engineering design. Detailed architectural or engineering design services as requested by the Owner would be delivered under separate contract at the Owner's discretion.

1.2.3 Data requirements

Fulfilling this contract requires Owner specific data. Neither phase can proceed without the Owner data.

1.3 STUDY SCOPE

The following defines the list of activities and tasks as defined in this agreement for consulting services.

1.3.1 PHASE ONE: RAPID CONSTRUCTION COST ESTIMATION

The Consultant will utilize the Owner's baseline data describing patient demand and site options to develop a site plan, land requirements and construction cost estimate for the freestanding emergency department. This work will be completed via phone discussions and video conferences if available. Once the Owner receives the necessary data, the Consultant will schedule the first of two conference call meetings. From this information the Consultant will prepare a site plan and construction cost estimate. The second and final conference call meeting of Phase One can occur 1-2 weeks after the first meeting. During this meeting the Consultant will present the site plan, land requirements, and construction cost estimation. Within one week of this call, the Consultant will deliver final recommendations for Phase One.

1.4 DELIVERABLES

The deliverables for this engagement include the following.

1.4.1 Final Report and Owner Specific Web Site

The Consultant will develop a final report that summarizes all findings and recommendations for Phase One. Data results, conceptual designs, presentations and the final reports developed during this engagement will be disseminated via an Owner specific web site.

The Phase One report will include:

- Site Plan
- Quantified Land Requirements
- Estimate of cost of construction

ARTICLE 2 PROPOSED SCHEDULE

2.1 PERFORMANCE OF SERVICES

The Consultant will perform services as expeditiously as is consistent with professional skill and care and the orderly progress of the Study.

2.2 QUANTITY OF ONSITE VISITS

This engagement is scheduled for one extended onsite visit as defined by the schedule below.

2.3 SCHEDULE

This contract and scope of services is based on the following schedule of activities and onsite visits. Phase One can consist of two phone conference meetings over a 2-3 week timeframe.

Any extension to this schedule, or addition of extra onsite visits, will be considered Changes in Service and shall entitle the Consultant to additional compensation in accordance with **Paragraph 4.5 Compensation for Additional Services.**

ARTICLE 3 COMPENSATION

3.1 CONSULTANT'S FEE

Phase One: For the **Scope of Services** identified in **ARTICLE 1.1.1 and 1.3.1**, the Consultant's fee shall be a stipulated sum of **Eighteen-Thousand-Dollars** (\$18,000) <u>including cost for project related reimbursable for travel and accommodations</u>.

3.1.1 Owner Directed Change of Scope

There are no additional charges for startup or ad hoc reports. The Owner reserves the right to change the Scope of Services at any time in accordance with its needs and will notify the Consultant in writing regarding the requested change in scope. If such instances arise, the Consultant agrees that the focus and cost of the original scope of services may change, and that supplemental agreement is required to cover these changes. And if no additional funds are available to cover the increased costs, the Scope of Services in the original scope of services must be reduced. In all instances, it shall be the responsibility of the Consultant to inform the Owner of the cost consequence of any changes in the Scope of Services before work is completed.

3.2 PAYMENT FOR SERVICES

Payments for Services shall be made monthly. Payments are due and payable upon receipt of the Consultant's invoice. Amounts unpaid <u>Sixty</u> (60) days after the invoice date shall bear interest at a rate of <u>One Percent</u> (<u>1%</u>) per month.

3.3 INVOICE OBJECTIONS

If the Owner objects to all or any portion of any invoice, the Owner shall notify the Consultant of the objection within fifteen (15) days from the date of the invoice, give reasons for the objection, and pay that portion of the invoice not in dispute.

3.3 FAILURE TO MAKE PAYMENT

Should the Owner fail to make any payment properly due under this Agreement, the Owner shall pay all expenses of the Consultant related to the collection or settlement of such payments including, but not limited to, attorney's fee, court cost, and the Consultant's time.

3.4 REIMBURSABLE EXPENSES

Reimbursable Expenses are in addition to compensation for Services and include expenses incurred by the Consultant and Consultant's employees and consultants in the interest of the work. Reimbursable expenses shall be computed as a multiple of 1.1 times the expense incurred by the consultant for:

- **3.4.1** Air transportation, accommodations and subsistence.
- **3.4.2** Long distance and electronic communications.
- **3.4.3** Printing, mailing and shipping cost.
- **3.4.4** Other similar direct work-related expenditures.

Reimbursables may include:

3.4.5	Automobile	Rental Car Expense
3.4.6	Printing & Handling (Larger than 11 x 17)	\$2.50/Sheet
3.4.7	Copies (11 x 17 or smaller)	\$0.15/Sheet
3.4.8	Copies (11 x 17 or smaller, color)	
3.4.9	Fax	
3.4.10	Plots	\$7.50/Plot

<u>ARTICLE 4</u> TERMINATION, SUSPENSION, OR ABANDONMENT

4.1 PERFOMRANCE

This Agreement may be terminated by either party upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

4.1.1 TERMINATION DUE TO FAILURE TO MAKE PAYMENT

Failure of the Owner to make payments to the Consultant in accordance with this Agreement shall be considered substantial nonperformance and cause for termination. If the Owner fails to make payment when due the Consultant for services and expenses, the Consultant may, upon seven days' written notice to the Owner, suspend performance of services under this Agreement. Unless the Consultant receives payment in full within seven days of the date of the

notice, the suspension shall take effect without further notice. In the event of a suspension of services, the Consultant shall have no liability to the Owner for delay or damage caused by the Owner because of such suspension of services.

4.2 TERMINATION WITHOUT CAUSE

This Agreement may be terminated without cause by the Owner upon not less than seven days' written notice to the Consultant.

4.3 CONSULTANT COMPENSATION

In the event of termination not the fault of the Consultant, the Consultant shall be compensated for Services performed prior to termination with applicable Reimbursable Expenses.

ARTICLE 5 MISCELLANEOUS PROVISIONS

5.1 GOVERNMENT

This Agreement shall be governed by the law of the principal place of business of the Consultant.

5.2 SETTLEMENT

If a claim or dispute arises out of or related to this Agreement, or breach thereof, the parties shall first try in good faith to settle the claim or dispute by mediation under the Construction Industry Mediation Rules of the American Arbitration Association before resorting to arbitration or other legal remedy.

5.3 USE OF DOCUMENTS

Any documents prepared by the Consultant as part of this work are instruments of the Consultant's service for use solely with respect to the identified engagement. The Consultant shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. Notwithstanding the foregoing, nothing in this Agreement shall preclude the Owner from utilizing the work of the Consultant for the intended purpose as identified in original request for hourly services.

5.4 THIRD PARTY

Nothing contained in this Agreement shall create a contractual relationship with or cause of action in favor of a third party against either the Owner or Consultant.

5.5 CONFIDENTIALITY

The Consultant while providing services may obtain confidential and proprietary information from the Owner. All such information shall be considered confidential and shall not be released by the Consultant to outside parties without the Owner's written consent.

5.6 METHODS

The Consultant's methods and analytical systems to be used in providing his services are confidential and proprietary. The Owner shall not reveal such methods and analytical systems to outside parties without the Consultant's permission.

ARTICLE 6 ACCEPTANCE

This Agreement entered into as of the day and year first written above.

Consultant:	Owner:
FreemanWhite, Inc.	Puna Community Medical Center
Charlotte, North Carolina	Pahoa, Hawaii
An Br	
10	
(Signature) Jon Huddy	(Signature)
Managing Principal	Print Name:
	Title:
Date: January 10, 2012	Date:
BILLING INFORMATION	Federal tax identification number:
	<u>Invoicing Information</u> Project Name:
	Contact name:
	Title:
	Telephone:
	Fax:
	Email:

END OF CONTRACT



Healthcare Strategies Business Operations Technology Facilities

8845 Red Oak Blvd. Charlotte, NC 28217-5593 704.523.2230 Fax 704.523.2235

PROPOSAL AND AGREEMENT FOR CONSULTING SERVICES Puna Community Rapid Planning Study Phase Two Pahoa, Hawaii

January 10, 2012

FreemanWhite, Inc. proposes to provide services defined in the following agreement for a **Rapid Planning Study** for the **Puna Community Medical Center, Pahoa, Hawaii**. The services, terms, and conditions specified below will constitute the Agreement between **Puna Community Medical Center** and **FreemanWhite, Inc**.

Upon your written acceptance and return of one executed copy of the Agreement to the undersigned, we will commence with the scope of services defined herein.

Agreement between Architect and Consultant:

This Agreement is made as of the <u>10th day of January in the year of Two Thousand and Twelve</u>

Between the Architect:	Puna Community Medical Center 15-2662 Pahoa Village Rd. Suite 306, PMB 8741 Pahoa, HI 96778
And the Consultant:	FreemanWhite, Inc. 8845 Red Oak Blvd. Charlotte, NC 28217-5593 (704) 523-2230 Fax (704) 523-2235

The Owner/Owner and the Consultant agree as set forth below.

ARTICLE 1 SCOPE OF CONSULTANT'S SERVICES

1.1 OBJECTIVE

The objectives of this Study is for the Consultant to deliver analysis, programming and conceptual planning services in a two phase project. During Phase One the Consultant will create a site plan, determine land requirements and construction cost estimate for your new Freestanding ED. During Phase Two the Consultant will start with the Phase One documents and work with the Owner to provide further detail to the design, operations and demand model for the new facility. The Phase One contract is a separate agreement. Phase Two cannot commence without completion of Phase One.

1.1.1 Phase Two

To accomplish the operational analysis and detailed planning component, the Consultant will work with the Owner's staff to determine the future operational parameters and space needs. The detailed operational and space needs will feed into the final recommendations for the project planning solution. This plan will identify the immediate project(s) and long term growth opportunities.

1.2 ASSUMPTIONS

This contract proposal is based on the following assumptions. Any changes in these assumptions during this engagement would be considered **Changes in Service** and would entitle the Consultant to additional compensation in accordance with **Article 4 Additional Services** below. This Contract Agreement is based on the following assumptions:

1.2.1 Rapid Plan Schedule

Phase Two will be completed over a five day period. Any extension of this schedule or follow up work will be considered Additional Services.

1.2.2 Consulting Services

This contract is for planning services and does not include detailed architectural or engineering design. Detailed architectural or engineering design services as requested by the Owner would be delivered under separate contract at the Owner's discretion.

1.2.3 Data requirements

Fulfilling this contract requires Owner specific data. Neither phase can proceed without the Owner data.

1.3 STUDY SCOPE

The following defines the list of activities and tasks as defined in this agreement for consulting services.

1.3.1 PHASE TWO

1.3.1.1 PROGRAMMING AND EMERGENCY DEPARTMENT OPERATIONAL ANALYSIS

During Phase Two, the Consultant will refine future space needs estimated in Phase One based on streamlined operations and efficient workflow. To accomplish this, the Consultant will work with the staff to develop step-by-step flowchart diagrams of existing operations for identification of existing process bottlenecks, redundancies and inefficiencies. The Consultant will work with physicians, nurses, technicians and staff members to understand current technology applications, workflow patterns, and staffing roles/responsibilities within the existing department.

As part of the Operational Analysis, existing operations will be quantified by the Consultant's computer simulation software. The baseline computer simulation of existing operations will be used as a starting point for the operational improvement services. As part of the Future Process Improvement Services, the Consultant will identify opportunities for efficiency gains both within the emergency department as well as with the ancillary departments. The process improvement work will include interviews with staff and ancillary departmental representatives, analysis of applicable data, and observation of existing operations.

FreemanWhite will work closely with the staff and leadership to identify how workflow can be redesigned to support effective and efficient ways to deliver care. Process improvement items proposed by FreemanWhite will recognize industry trends and best practice targets. FreemanWhite will quantify future efficiency gains through testing of various operational processes with our computer simulation software. FreemanWhite will define and document the future operational and technological applications for the proposed emergency department project.

The intent of the Operational Analysis component is that the staff and leadership are focused on streamlining operations prior to the discussion/implementation of any architectural planning concepts. The Operational Analysis defines the future operational parameters of the ED and focuses on streamlined workflow and reduction of length of stay times in the department.

1.3.1.2 DEVELOPMENT OF PLANNING CONCEPT

The final physical plan will utilize the operational models created and detailed in section 1.3.2 to define the future overall clinic organization, including the recommended size, building configuration, and site location for emergency services. Site circulation, parking needs, patient access and potential future facility expansion will be planning drivers for this engagement.

1.4 DELIVERABLES

The deliverables for this engagement include the following.

1.4.1 Final Report and Owner Specific Web Site

The Consultant will develop a final report that summarizes all findings and recommendations for Phase Two. Data results, conceptual designs, presentations and the final reports developed during this engagement will be disseminated via an Owner specific web site.

Phase Two deliverables will include:

- Existing workflow diagrams with associated narrative describing the existing process bottlenecks/redundancies with the Emergency Department
- Future utilization projections including identification of ED patient types and associated volumes 5 and 10 years out
- Comparison of Puna Community Medical Center ED data to FreemanWhite database, benchmark and best practice data
- Proposed workflow diagrams with associated narrative defining future workflow/operations and staffing patterns
- Quantified results from computer simulation documenting expectations for future length of stay times and future space needs (space program)
- Interim ED operations plan that defines process improvement targets with associated "responsible person/team," step-by-step action items, recommended due dates, and applicable reporting tasks and educational processes.
- Analysis of how the future ED design will effect campus parking, pedestrian, and automobile circulation
- Site Diagrams defining the recommended future renovations and expansions
- Plan diagrams defining long-term clinic development

ARTICLE 2 PROPOSED SCHEDULE

2.1 PERFORMANCE OF SERVICES

The Consultant will perform services as expeditiously as is consistent with professional skill and care and the orderly progress of the Study.

2.2 QUANTITY OF ONSITE VISITS

This engagement is scheduled for one extended onsite visit as defined by the schedule below.

2.3 SCHEDULE

This contract and scope of services is based on the following schedule of activities and onsite visits. Phase Two can occur on site over the course of one week once Phase One is complete.

Any extension to this schedule, or addition of extra onsite visits, will be considered Changes in Service and shall entitle the Consultant to additional compensation in accordance with **Paragraph 4.5 Compensation for Additional Services.**

ARTICLE 3 COMPENSATION

3.1 CONSULTANT'S FEE

Phase Two: For the **Scope of Services** identified in **ARTICLE 1.1.2 and 1.3.2**, the Consultant's fee shall be a stipulated sum of **Sixty-Thousand-Dollars** (\$60,000) including cost for project related reimbursable for travel and accommodations.

3.1.1 Owner Directed Change of Scope

There are no additional charges for startup or ad hoc reports. The Owner reserves the right to change the Scope of Services at any time in accordance with its needs and will notify the Consultant in writing regarding the requested change in scope. If such instances arise, the Consultant agrees that the focus and cost of the original scope of services may change, and that supplemental agreement is required to cover these changes. And if no additional funds are available to cover the increased costs, the Scope of Services in the original scope of services must be reduced. In all instances, it shall be the responsibility of the Consultant to inform the Owner of the cost consequence of any changes in the Scope of Services before work is completed.

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3.4.5	Automobile	Rental Car Expense
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3.4.7	Copies (11 x 17 or smaller)	
3.4.8		\$2.00/Sheet
3.4.9	Fax	\$1.00/Sheet
3.4.10	Plots	\$7.50/Plot
3.4.8 3.4.9	Copies (11 x 17 or smaller, color) Fax	\$2.00/Sheet \$1.00/Sheet \$7.50/Blot

<u>ARTICLE 4</u> TERMINATION, SUSPENSION, OR ABANDONMENT

4.1 PERFOMRANCE

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The Consultant's methods and analytical systems to be used in providing his services are confidential and proprietary. The Owner shall not reveal such methods and analytical systems to outside parties without the Consultant's permission.

ARTICLE 6 ACCEPTANCE

This Agreement entered into as of the day and year first written above.

Consultant:	Owner:
FreemanWhite, Inc.	Puna Community Medical Center
Charlotte, North Carolina	Pahoa, Hawaii
An H	
10	
(Signature)	(Signature)
Jon Huddy	(Signature)
Managing Principal	Print Name:
	Title:
Date: January 10, 2012	Date:
BILLING INFORMATION	Federal tax identification number:
	Invoicing Information
	Project Name: Contact name:
	Title:
	Telephone:
	Fax:
	Email:

END OF CONTRACT



2012 Officers

President René Siracusa

Vice-President Bill Parecki

Treasurer Steve Sparks

Secretary Ariela Murphy

2012 Directors

Diane Brucato-Thomas

Sara Burgess

Advisors

Janice Dauw

John Erickson

Evelyn Hegent

Hart Miller, MD

Ron Quade, DDS

Staff Liaison to Board

Daniel DiDomizio, PA, MPH, Clinical Programs Director

Phone Inquiries (808) 930-6001

Mail Address 15-2662PāhoaVillageRd. Suite 306, PMB 8741 Pāhoa, HI 96778

Email: dand@punahealth.org February 15, 2012

Sal Panem, District Engineer Hawai'i Dept. of Transportation P. O. Box 4277 Hilo, HI 96720

Aloha Mr. Panem:

I am writing to inform you about some upcoming development plans that will be of interest to you, as you proceed with your plans for the incremental widening of Hwy. 130. I attended the meeting in Pahoa hosted by Sen. Kahele, which is how I know about those plans.

Puna Community Medical Center (PCMC) has applied to the Dept. of Land and Natural Resources - Land Division, for a long term lease of parcel TMK No. (3) 1-5-08:05. which fronts the highway. Pursuant to the Puna Community Development Plan (3.3.1, 3.3.3a and 3.4.2a), which passed as an ordinance amending the County General Plan in August 2008, we are proposing to construct a 24/7 ER, together with an associated clinical laboratory and x-ray facility as our first phase. Future phases will include a dental clinic, a birthing center, and various other elements leading to our ultimate vision of a comprehensive medical center for Puna makai.

Although it will take several months before the Board of Land and Natural Resources makes its determination about our lease request, we wanted to let you know ahead of time because we are sure that some accomodation for left turns onto the parcel (especially by the ambulance) will have to be made, and that is your area of expertise, not ours. I know that once we apply for our Special Use Permit, the Planning Dept. will solicit your input, but since we can't do that until we have the go-ahead from DLNR, and your plans for the highway widening have a timeline, I thought it best to give you this advance notice.

If you have any questions, comments or suggestions at this time we would be very open to them. I would also be happy to meet with you at your convenience.

Mahalo,

Cano Suacura

René Siracusa President

PALMER & ASSOCIATES CONSULTING

BOTANICAL SURVEYS P.O. Box 637 Pahoa, Hawaii 96778 808-936-0341

rpalmer@palmerassociatesconsulting.com

Rene Siracusa May 21, 2012 Malama O Puna Pahoa, HI 96778

Re: Pahoa Urgent Care site botanical survey

Rene:

This letter and the attached species list will serve as our report on the botanical resources found on the proposed Pahoa Urgent Care facility site (TMK 1-5-08-05) we surveyed on May 14, 2012.

The site is occupied by early successional 'Ohia forest characteristic of pahoehoe fows of similar age in the surrounding area. Cover of 'Ohia averaged about 50% with uluhe (*Dicranopteris linearis*) forming a dense growth between the trees. The stands of uluhe are infested with glory bush (*Tibouchina urvelleana*), which varies in relative cover over the site. A portion of the site was formerly a nursery and the vegetation shows evidence of signifcant past disturbance. At the former nursery site, introduced grasses and ruderal weeds dominate the vegetation.

No federal or state listed threatened or endangered plants, or "species of concern" plants were found on the site. Nor were any unique or important habitats or other significant biological resources found. We conclude that the proposed project will have no significant effect on biological resources.

Please let me know if you need any other information. Thanks again.

Sincerely,

Rex Palmer, Ph.D.

Vascular Plants of TMK 1-5-08-05 Pahoa Urgent Care Site

FAMILY <u>Genus / species</u>	<u>Common Name</u>	Distribution*				
	OPHYTES Fern Allies)					
GLEICHENIACEAE Dicranopteris linearis	False Staghorn Fern Family Uluhe	y I				
LOMARIOPSIDACEAE	Elaphoglossum Family					
Elaphoglossum crassifolium (Gaudich.) W. R. Anderson & Crosby	'Ekaha	Е				
NEPHROLEPIDACEAE Nephrolepis multiflora (Roxb.) C. Morton	Boston Fern Family sword fern	А				
POLYPODIACEAE Microsorum scolopendria (Burm. f.)Copel	Polypod Fern Family . laua'e	Ι				
PSILOTACEAE Psilotum nudum (L.) P. Beauv.	Whisk Fern Family moa	Ι				
PTERIDACEAE Pityrogramma calomelanos (L.) Link	Pteris Family silver fern	А				
GYMNOSPERMS						
ARAUCARIACEAE	Araucaria Family					

Araucaria columnaris (G. Forster) J. D. Hooker Cook Pine

А

DICOTYLEDONS

ASTERACEAE	Sunflower Family	
Ageratum houstonianum Mill.	maile hohono	А
<i>Conyza canadensis</i> (L.) Cronq.	horseweed	A
Pluchea carolinensis (Jacq.) G. Don.	sourbush	A
Sphagneticola trilobata (L.) Pruski	wedellia	A
	wedenia	11
CECROPIACEAE	Cecropia Family	
Cecropia obtusifolia Bertol.	cecropia	Α
CLUSIACEAE	Clusia Family	
Clusia rosea Jacq.	autograph tree	А
Clusiu loseu jacq.	autographitiee	Π
EUPHORBIACEAE	Spurge Family	
Euphorbia glomerifera (Millsp.) L. C. Whe		Α
FABACEAE	Bean Family	
<i>Albizia lebbeck</i> (L.) Benth.	albizia	А
<i>Chamaecrista nictitans</i> (L.) Moench	partridge pea	A
Mimosa pudica L. var. unijuga	Paranage Pen	
, (Duchass. & Walp.) Griseb	o. sleepy grass	А
MALVACEAE	Hibiscus Family	
Sida rhombifolia L.	false 'ilima	А
Sidu momoljoliu L.	laise mina	Π
MELASTOMATACEAE	Melastoma Family	
<i>Clidemia hirta</i> (L.) D. Don	Koster's curse	А
Dissotis rotundifolia (Sm.) Triana	dissotis	А
Tibouchina urvelleana (DC) Cogn.	glorybush	А
	Marutha Equailar	
MYRTACEAE Matrocidaros nolumornha Coud	Myrtle Family 'Ohia	E
<i>Metrosideros polymorpha</i> Gaud. <i>Psidium cattleianum</i> Sabine	strawberry guava	A
Psidium guajava L.	common guava	A
	6	
PASSIFLORACEAE	Passion Flower Family	
Passiflora foetida L.	pohapoha	А
POLYGALACEAE	Milkwort Family	
Polygala paniculata L.	milkwort	А
STERCULIACEAE	Cacao Family	
Melochia umbellata (Houtt.) Stapf	melochia	А
Waltheria indica L.	'uhaloa	I

VERBENACEAE

Stachytarpheta urticifolia (Salisb.) Sims

Verbena Family false vervain

MONOCOTS

AGAVACEAE Cordyline fruticosa (L.) A. Chev. Dracaena fragrans (L.) Ker Gawler Dracaena marginata Lamarck	Agave Family ti fragrant dracaena money tree	P A A
CYPERACEAE Cyperis rotundus L. Rhynchospora caduca Elliott Scleria testacea Nees	Sedge Family nut sedge beak rush razor grass	A A I
ORCHIDACEAE <i>Arundina graminifolia</i> (D. Don) Hochr. <i>Spathoglottis plicata</i> Blume	Orchid Family bamboo orchid Malayan ground orchid	A A
PALMAE <depauperate <i="" cf.="" cultivated="" palms="" –="">Ch</depauperate>	rysalidocarpus or Veitchia spp. >	А
POACEAE Andropogon virginicus L. Anthoxanthum odoratum L. Axonopus compressus (Sw.) P. Beauv. Melinus minutiflora P. Beauv. Panicum maximum Jacq. Paspalum conjugatum Bergius Paspalum dilatatum Poir. Pennisetum purpureum Schumach. Sacciolepis indica (L.) Chase Schizachyrium condensatum (Knuth) New	Grass Family broomsedge sweet vernal grass carpet grass molasses grass Guinea grass Hilo grass Dallis grass elephant grass Glenwood grass beardgrass	A A A A A A A A A

*Distribution:

I = Indigenous (native, found in Hawai'i and elsewhere)

E = Endemic (native, found only in Hawai'i)

A = Alien, introduced in modern times

P = Polynesian introduction

NEIL ABERCROMBIE GOVERNOR OF HAWAII





WILLIAM J. AILA, JR. CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

ESTHER KIA'AINA

WILLIAM M. TAM DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES BOATING AND OCEAN RECREATION BUREAU OF CONVEYANCES COMMISSION ON WATER RESOURCE MANAGEMENT CONSERVATION AND COASTAL LANDS CONSERVATION AND COASTAL LANDS CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING FORESTRY AND WILDLIFE HISTORIC PRESERVA COMMISSION LAND STATE PARKS

HISTORIC PRESERVATION DIVISION DEPARTMENT OF LAND AND NATURAL RESOURCES

601 Kamokila Boulevard, Suite 555 Kapolei, HI 96806

April 22, 2013

Robert B. Rechtman, Ph.D. Rechtman Consulting, LLC 507-A E. Lanikaula St. Hilo, Hawai'i 96720 LOG NO: 2013.2481 DOC NO: 1304SN14 Archaeology

Dear Dr. Rechtman:

SUBJECT: Chapter 6E-42 Historic Preservation Review – Archaeological Assessment Survey for the Puna Community Medical Center (RC-0828) Keonepoko Nui Ahupua'a, Puna District, Island of Hawai'i TMK: (3) 1-5-008:005

Thank you for the opportunity to review your revised document titled *Archaeological Assessment Survey for the Proposed Puna Community Center, Keonepoko Nui Ahupua'a, Puna District, Island of Hawai'i, TMK: (3) 1-5-*008:005 (Rechtman February 2013). This document was received in our Hilo office on April 2, 2013. The proposed project area is a 4.92 acre parcel. An archaeological survey was conducted is in response to letter dated December 7, 2012 from our office recommending that an archaeological survey be conducted for the parcel (Log 2012.0481, Doc 1212TD03).

A draft of this report was reviewed by our office, and on March 12, 2013 SHPD archaeologists Theresa Donham and Sean Naleimaile conducted an additional site visit to the project area as part of the review. During that site visit we cleared an area along what we believe to be a man-made alignment rather than a natural occurrence or a result of bulldozing activities near the parcel. It appeared that no clearing had been done along the area of the possible alignment that could have potentially affected the previous conclusion. Additional vegetation clearing was recommended to adequately access our concerns relating to the potential presence of historic properties (*Log 2013.1969, Doc 1303SN01*).

Additional fieldwork was conducted and the report confirms that the possible alignments were the result of bulldozer push from the construction of the roadway. No historic properties were recorded during the survey of this parcel. SHPD concurs with your recommendation that a qualified archaeologist conduct a field inspection following initial grubbing and prior to grading in order to assess portions of the project area where ground visibility was highly impaired.

This report meets the requirements of Hawai'i Administrative Rule 13-284-5 (b) (5) (A) and is accepted by SHPD. Please send one hardcopy of the document, clearly marked FINAL, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library. Please contact Sean P. Naleimaile (808) 933-7651 or <u>Sean.P.Naleimaile@hawaii.gov</u> if you have any questions or concerns regarding the letter.

Aloha,

Theresa K. Donham Archaeology Branch Chief

An Archaeological Assessment Survey for the Proposed Puna Community Medical Center

(TMK: 3-1-5-008:005)

Keonepoko Nui Ahupua'a Puna District Island of Hawai'i



FINAL VERSION

PREPARED BY:

Robert B. Rechtman, Ph.D. and Lauryl Zenobi, B.A.

PREPARED FOR:

Renè Siracusa Puna Community Medical Center

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An Archaeological Assessment Survey for the Proposed Puna Community Medical Center

(TMK: 3-1-5-008:005)

Keonepoko Nui Ahupua'a Puna District Island of Hawai'i



MANAGEMENT SUMMARY

At the request of Renè Siracusa, President and Board of Directors member representing Puna Community Medical Center, Rechtman Consulting, LLC conducted an archaeological survey of a roughly 4.92 acre parcel (TMK:3-1-5-008:005) in Keonepoko Nui Ahupua'a, Puna District, Island of Hawai'i. Proposed development will consist of an comprehensive medical facility, to be constructed on State land under a direct lease agreement. The current study was undertaken in accordance with Hawai'i Administrative Rules 13§13–284, and was performed in compliance with the Rules Governing Minimal Standards for Archaeological Inventory Surveys and Reports as contained in Hawai'i Administrative Rules 13§13–276. According to 13\\$13-284-5 when no archaeological resources are discovered during an archaeological survey the production of an Archaeological Assessment report is appropriate. Compliance with the above standards is sufficient for meeting the historic preservation review process requirements of both the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD) and the County of Hawai'i Planning Department. The entire project area was surveyed on-foot employing transects with fieldworkers maintaining a 5-meter spacing interval. The boundaries of the project area were clearly visible and no historic properties were identified as a result of the fieldwork. Given the negative findings of the current study, it is concluded that the development of the proposed medical facility will not significantly impact any known historic properties. However, given the density of vegetation in portions of the study area and the concomitant impairment of ground visibility, it is recommended that a qualified archaeologist conduct a field inspection of the proposed development area after the initial grubbing has been completed and prior to any grading activities. If any archaeological resources are observed during this time they can be documented in a supplemental survey report. If no resources are observed then grading activities can commence. In the unlikely event that any unanticipated resources are unearthed during grading activities, DLNR-SHPD should be contacted as outlined in Hawai'i Administrative Rules 13§13-280.

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INTRODUCTION

At the request of Rene Siracusa, President and Board of Directors member representing Puna Community Medical Center, Rechtman Consulting, LLC conducted an archaeological survey of a roughly 4.92 acre parcel (TMK:3-1-5-008:005) in Keonepoko Nui Ahupua'a, Puna District, Island of Hawai'i. Intended development consists of a proposed medical facility, to be constructed on State land under a direct lease agreement.

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This report contains background information outlining the project area's physical and cultural contexts, a presentation of previous archaeological work in the area and current survey expectations based on that previous work, along with an explanation of the project methods.

Study Area Description

The study area is located adjacent to the Kea'au-Pāhoa Road (Highway 130), approximately a half mile northeast of Pahoa Village (Figure 1). The parcel is bounded by the State of Hawai'i Department of Water Supply Well and Reservoir Site to the northeast and Keonepoko Homestead Lots to the southwest (Figures 2, 3 and 4). A fallen fence and metal fence posts line the southwest boundary of the property, and Norfolk pine trees delineate the mauka property edge and follow the southwest boundary for roughly half the length of the parcel. Portions of the property have been bulldozed in the past, evidenced by at least two bulldozer cuts that allow access from Kea'au-Pāhoa Road through the parcel (Figure 5), a graded area at the mauka edge of the property (Figure 6), and bulldozing between the highway and the makai property boundary that resulted in a pushed alignment of rocks and soil (Figure 7) along the *makai* parcel boundary where it is distant from the highway corridor. Vegetation throughout the parcel consists predominately of a dense 'ōhi'a (Metrosideros polymorpha) and uluhe (Dicranopteris linearis) forest. Ground visibility at the time of the survey was poor in the undisturbed portions of the property, and excellent in the area that had been subjected to land clearing activities. Prior to the bulldozing, the ground surface within the study area likely consisted of *pāhoehoe* bedrock dating from between 200 to 750 year old (Wolfe and Morris 1996). The current proposed development plans call for the construction of a comprehensive medical center that will include an emergency room, clinical labs, x-ray capability, dental clinic, birthing center, pediatric clinic, administration and maintenance buildings, parking lot, and septic system.

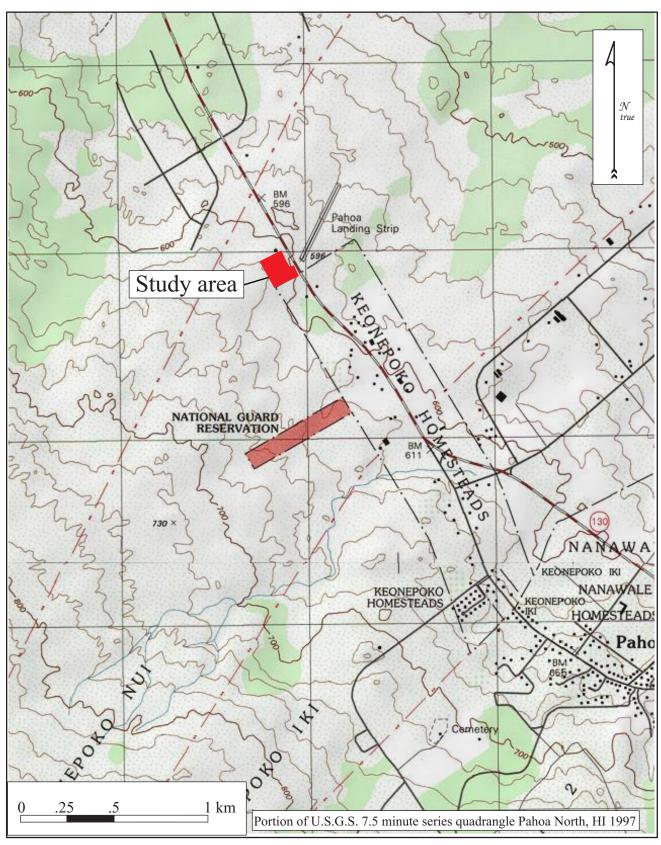


Figure 1. Study area location.

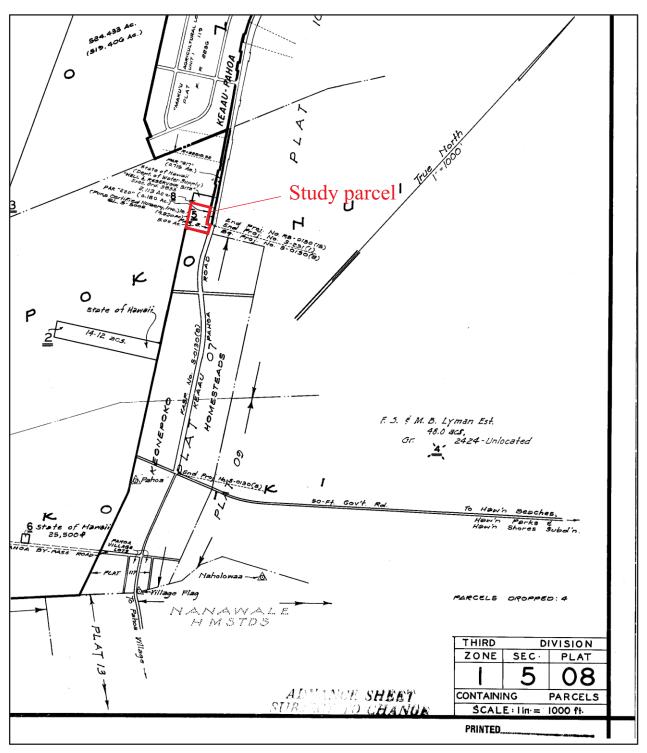


Figure 2. Portion of Tax Map 3-1-5-08 showing study parcel (005).

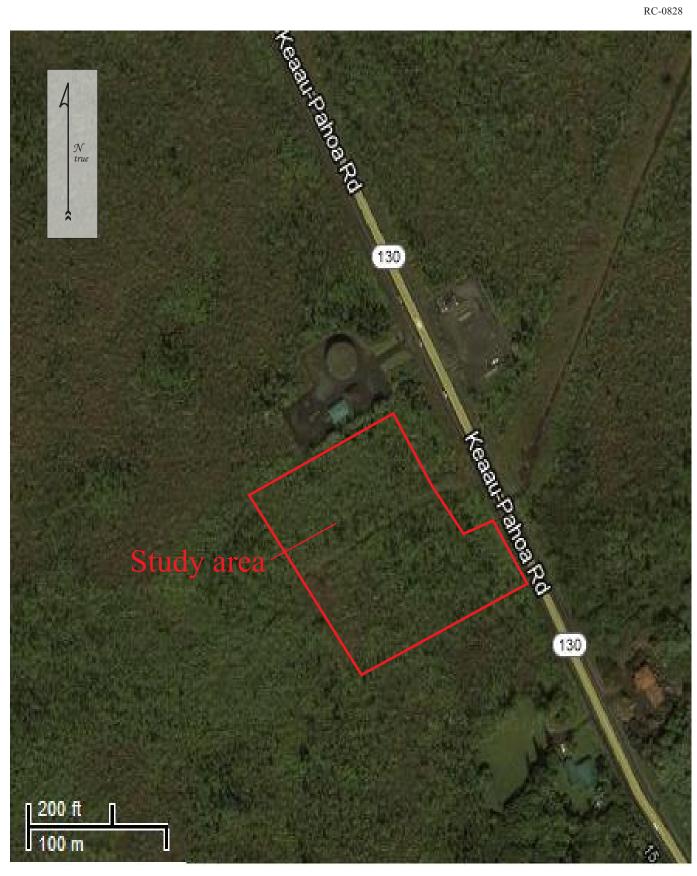


Figure 3. GoogleTM earth image showing the current study parcel.



Figure 4. State of Hawai'i Department of Water Supply Well and Reservoir Site, view to the southwest.



Figure 5. Bulldozer cut allowing access from Kea'au-Pāhoa Road through parcel, view to the northeast.



Figure 6. Graded area at *mauka* property edge, view to the south.



Figure 7. Bulldozer push along portion of *makai* parcel boundary, view to the northwest.

BACKGROUND

To generate expectations regarding the nature of the historic properties that might exist within the study area, and to provide an appropriate background to assess any resources that are encountered, the specific as well as general physical and cultural contexts are presented along with prior archaeological studies relevant to the project area.

Culture-Historical Context

A generalized Cultural-Historical context for Hawai'i Island, Puna District, and the specific study *ahupua'a*, along with the expected settlement patterns for the area are presented in order to establish current project area expectations.

The question of the timing of the first settlement of Hawai'i by Polynesians remains unanswered. Several theories have been offered derived from various sources of information (i.e., genealogical, oralhistorical, mythological, radiometric), but none of these theories is today universally accepted (c.f., Kirch 2011). The three most popular theories place the first settlement at around A.D. 300, A.D. 600. and A.D. 1000, respectively. What is more widely accepted is the answer to the question of where Hawaiian populations came from and the transformations they went through on their way to establish a uniquely Hawaiian culture.

For generations following initial settlement, communities were clustered along the watered, windward (ko'olau) shores of the Hawaiian Islands. Along the ko'olau shores, streams flowed and rainfall was abundant, and agricultural production became established. The ko'olau region also offered sheltered bays from which deep sea fisheries could be easily accessed, and near shore fisheries, enriched by nutrients carried in the fresh water, could be maintained in fishponds and coastal waters. It was around these bays that clusters of houses where families lived could be found (McEldowney 1979:15). In these early times, Hawai'i's inhabitants were primarily engaged in subsistence level agriculture and fishing (Handy et al. 1972:287).

Over a period of several centuries, areas with the richest natural resources became populated and perhaps crowded, and by about A.D. 1200, the population began expanding to the *kona* (leeward side) and more remote regions of the island (Cordy 2000:130). In Kona, communities were initially established along sheltered bays with access to fresh water and rich marine resources. The primary "chiefly" centers were established at several locations—the Kailua (Kaiakeakua) vicinity, Kahalu'u-Keauhou, Ka'awaloa-Kealakekua, and Hōnaunau. The communities shared extended familial relations, and there was an occupational focus on the collection of marine resources. By the fourteenth century, inland elevations to around the 3,000-foot level were being turned into a complex and rich system of dryland agricultural fields (today referred to as the Kona Field System). By the fifteenth century, residency in the uplands was becoming permanent, and there was an increasing separation of the chiefly class from the common people. In the sixteenth century the population stabilized and the *ahupua'a* land management system was established as a socioeconomic unit (see Ellis 1963; Handy et al. 1972; Kamakau 1992; Kelly 1983; and Tomonari-Tuggle 1985).

Over the generations, the ancient Hawaiians developed a sophisticated system of land and resources management. By the time 'Umi-a-Līloa rose to rule the island of Hawai'i in ca. 1525, the island (*moku-puni*) was divided into six districts or *moku-o-loko* (cf. Fornander 1973–Vol. II:100-102). On Hawai'i, the district of Puna is one of six major *moku-o-loko* within the island.

Puna like other large districts on Hawai'i, was subdivided into 'okana or kalana (regions of land smaller than the moku-o-loko, yet comprising a number of smaller units of land. The moku-o-loko and 'okana or kalana were further divided into manageable units of land, and were tended to by the maka'āinana (people of the land) (cf. Malo 1951:63-67). Of all the land divisions, perhaps the most significant management unit was the *ahupua'a*. *Ahupua'a* are subdivisions of land that were usually marked by an altar with an image or representation of a pig placed upon it (thus the name *ahu-pua'a* or pig altar). In their configuration, the *ahupua'a* may be compared to wedge-shaped pieces of land that radiate out from the center of the island, extending to the ocean fisheries fronting the land unit. Their boundaries are generally defined by topography and geological features such as *pu'u* (hills), ridges, gullies, valleys, craters, or areas of a particular vegetation growth.

The *ahupua* 'a were also divided into smaller individual parcels of land (such as the '*ili*, $k\bar{o}$ 'ele, $m\bar{a}la$, and $k\bar{i}h\bar{a}pai$, etc.), generally oriented in a *mauka-makai* direction, and often marked by stone alignments (*kuaiwi*). In these smaller land parcels the native tenants tended fields and cultivated crops necessary to sustain their families, and the chiefly communities with which they were associated. As long as sufficient tribute was offered and *kapu* (restrictions) were observed, the common people, who lived in a given *ahupua* 'a had access to most of the resources from mountain slopes to the ocean. These access rights were almost uniformly tied to residency on a particular land, and earned as a result of taking responsibility for stewardship of the natural environment, and supplying the needs of the *ali* '*i* (see Kamakau 1992:372-377 and Malo 1951:63-67).

Entire *ahupua* 'a, or portions of the land were generally under the jurisdiction of appointed *konohiki* or lesser chief-landlords, who answered to an *ali* '*i*- '*ai-ahupua* 'a (chief who controlled the *ahupua* 'a resources). The *ali* '*i*- '*ai-ahupua* 'a in turn answered to an *ali* '*i* '*ai moku* (chief who claimed the abundance of the entire district). Thus, *ahupua* 'a resources supported not only the *maka* '*āinana* and '*ohana* who lived on the land, but also contributed to the support of the royal community of regional and/or island kingdoms. This form of district subdividing was integral to Hawaiian life and was the product of strictly adhered to resources management planning. In this system, the land provided fruits and vegetables and some meat in the diet, and the ocean provided a wealth of protein resources.

The current study area is located within Keonepoko Nui Ahupua'a, a land unit of the District of Puna, one of six major districts on the island of Hawai'i. As McGregor relates, "Puna is where new land is created and new growth and new life sprout. The new land is sacred, fresh, clean, and untouched. After vegetation begins to grow upon it, it is ready for human use." (2007:145). In Precontact and early Historic times the people lived in small settlements along the coast where they subsisted on marine resources and agricultural products. According to McEldowney (1979), six coastal villages were present along the Puna coast between Hilo and Cape Kumakahi (Kea'au or Haena, Maku'u, Waiakahiula, Honolulu, Kahuwai, and Kula or Koa'e. Each of the villages, McEldowney notes:

...seems to have comprised the same complex of huts, gardens, windbreaking shrubs, and utilized groves, although the form and overall size of each appear to differ. The major differences between this portion of the coast and Hilo occurred in the type of agriculture practiced and structural forms reflecting the uneven nature of the young terrain. Platforms and walls were built to include and abut outcrops, crevices were filled and paved for burials, and the large numbers of loose surface stones were arranged into terraces. To supplement the limited and often spotty deposits of soil, mounds were built of gathered soil, mulch, sorted sizes of stones, and in many circumstances, from burnt brush and surrounding the gardens. Although all major cultigens appear to have been present in these gardens, sweet potatoes, ti (Cordyline terminalis), noni (Morinda citrifolia), and gourds (Lagenaria siceraria) seem to have been more conspicuous. Breadfruit, pandanus, and mountain apple (Eugenia malaccensis) were the more significant components of the groves that grew in more disjunct patterns than those in Hilo Bay. [1979:17]

Barrère (1959) summarized the Precontact geopolitics of the Puna District as follows:

Puna, as a political unit, played an insignificant part in shaping the course of history of Hawaii Island. Unlike the other districts of Hawaii, no great family arose upon whose support one or another of the chiefs seeking power had to depend for his success. Puna lands were desirable, and were eagerly sought, but their control did not rest upon conquering Puna itself, but rather upon control of the adjacent districts, Kau and Hilo. (Barrère 1959:15)

Despite the perceived lack of importance with respect to the emerging political history of Hawaiian leadership, Puna was a region famed in legendary history for its associations with the goddess Pele and god Kāne (Maly 1998). Because of the relatively young geological history and persistent volcanic activity the region's association with Pele has been a strong one. However, the association with Kāne is perhaps more ancient. Kāne, ancestor to both chiefs and commoners, is the god of sunlight, fresh water, verdant growth, and forests (Pukui 1983). It is said that before Pele migrated to Hawai'i from Kahiki, there was "no place in

the islands . . . more beautiful than Puna" (Pukui 1983:11). Contributing to that beauty were the groves of fragrant *hala* and forests of '*ōhi*'a *lehua* for which Puna was famous:

Puna pāia 'ala i ka hala (Puna, with walls fragrant with pandanus blossoms). Puna, Hawai'i, is a place of *hala* and *lehua* forests. In olden days the people would stick the bracts of *hala* into the thatching of their houses to bring some of the fragrance indoors. (Pukui 1983:301)

Following the death of Kamehameha I in 1819, the Hawaiian religious and political systems began a radical transformation; Ka'ahumanu proclaimed herself "*Kuhina nui*" (Prime Minister), and within six months the ancient *kapu* system was overthrown. Within a year, Protestant missionaries arrived from America (Fornander 1973; I'i 1959; Kamakau 1992). In 1823, British missionary William Ellis and members of the American Board of Commissioners for Foreign Missions (ABCFM) toured the island of Hawai'i seeking out communities in which to establish church centers for the growing Calvinist mission. Ellis recorded observations made during this tour in a journal (Ellis 1963). His writings contain descriptions of residences and practices that are applicable to the general study area:

As we approached the sea, the soil became more generally spread over the surface, and vegetation more luxuriant. About two p.m. we sat down to rest. The natives ran to a spot in the neighbourhood, which had formerly been a plantation, and brought a number of pieces of sugar-cane, with which we quenched our thirst, and then walked on through several plantations of sweet potato belonging to the inhabitants of the coast . . . (Ellis 1963:182-183)

The population in this part of Puna, though somewhat numerous, did not appear to possess the means of subsistence in any great variety or abundance; and we have often been surprised to find desolate coasts more thickly inhabited than some of the fertile tracts in the interior; a circumstance we can only account for, by supposing that the facilities which the former afford for fishing, induce the natives to prefer them as places of abode; for they find that where the coast is low, the adjacent water is usually shallow.

We saw several fowls and a few hogs here, but a tolerable number of dogs, and quantities of dried salt fish, principally albacores and bonitos. This latter article, with their *poë* [*poi*] and sweet potatoes, constitutes nearly the entire support of the inhabitants, not only in this vicinity, but on the sea coasts of the north and south parts of the island.

Besides what is reserved for their own subsistence, they cure large quantities as an article of commerce, which they exchange for the vegetable productions of Hilo and Mamakua [Hāmākua], or the *mamake* and other tapas of Ora ['Ōla'a] and the more fertile districts of Hawaii.

When we passed through Punau [Pānau], Leapuki [Laeapuki], and Kamomoa [Kamoamoa], the country began to wear a more agreeable aspect. Groves of coca-nuts ornamented the projecting points of land, clumps of kou-trees appeared in various directions, and the habitations of the natives were also thickly scattered over the coast . . . (Ellis 1963:190-191)

One year after Ellis' tour, the ABCFM established a base church in Hilo. From that church (Hāili), the missionaries traveled to the more remote areas of the Hilo and Puna Districts. David Lyman who came to Hawai'i in 1832, and Titus Coan who arrived in 1835 were two of the most influential Congregational missionaries in Puna and Hilo. As part of their duties they compiled census data for the areas within their missions. In 1835, 4,800 individuals are recorded as residing in the district of Puna (Schmitt 1973); the smallest total district Population on the island of Hawai'i. In 1841, Titus Coan recorded that most of the 4,371 recorded residents of Puna, lived near the shore, though there were hundreds of individuals who lived inland (Holmes 1985). In that same year, Commander Charles Wilkes of the United States Exploring Expedition, toured the Hawaiian Islands (Wilkes 1845). His expedition traveled through lower Puna not far from the current study area:

Almost all of the hills or craters of any note have some tradition connected with them; but I found that the natives were now generally unwilling to narrate these tales, calling them "foolishness." After leaving the *pahoihoi* [pāhoehoe] plain, we passed along the line of cone-craters towards Point Kapoho, the Southeast part of the island.

Of these cone-craters we made out altogether, large and small, fifteen, trending about east-northeast. The names of the seven last are Pupukai, Poholuaokahowele [Pu'u-hōlua-o-Kahawali], Punomakalua, Kapoho, Puukea, Puuku, and Keala. On some of these the natives pointed out where there had formerly been slides, an amusement or game somewhat similar to the sport of boys riding down hill on sleds. These they termed *kolua* [*hōlua*].

This game does not appear to be practiced now, and I suppose that the chiefs consider themselves above such boyish amusements. The manner in which an old native described the velocity with which they passed down these slides was, by suddenly blowing a puff; according to him, these amusements were periodical, and the slides were usually filled with dried grass.

As we approached the seashore, the soil improved very much, and was under good cultivation, in taro, sweet potatoes, sugar cane, and a great variety of fruit and vegetables. At about four o'clock, we arrived at the house of our guide, Kekahunanui, who was the "head man." I was amused to find that none of the natives knew him by this name, and were obliged to ask him . . .the view from the guide's house was quite pretty, the eye passing over well-cultivated fields to the ocean, whose roar could be distinctly heard. (Wilkes 1845 Vol. IV:186)

During the night, one of the heaviest rains I had experienced in the island, fell; but the morning was bright and clear—every thing seemed to be rejoicing around, particularly the singing-birds, for the variety and sweetness of whose notes Hawaii is distinguished.

Previous to our departure, all the tenantry, if so I may call them, came to pay their respects, or rather to take a look at us. We had many kind wishes, and a long line of attendants, as we wended our way among the numerous taro patches of the low grounds, towards Puna; and thence along the sea-coast where the lava entered the sea, at Nanavalie [Nānāwale]. The whole population of this section of the country was by the wayside, which gave me an opportunity of judging of their number; this is much larger than might be expected from the condition of the country, for with the exception of the point at Kapoho, very little ground that can be cultivated is to be seen. The country, however, is considered fruitful by those who are acquainted with it, notwithstanding its barren appearance on the roadsides. The inhabitants seemed to have an abundance if bread-fruit, bananas, sugar-cane, taro, and sweet-potatoes. The latter, however, are seen to be growing literally among heaps of stones and pieces of lava, with scarcely soil enough to cover them; yet they are, I am informed, the finest on the island...

In some places they have taken great pains to secure a good road or walking path; thus, there is a part of the road from Nanavalie to Hilo which is built of pieces of lava, about four feet high and three feet wide on the top; but not withstanding this, the road is exceedingly fatiguing to the stranger, as the lumps are so arranged that he is obliged to take a long and short step alternately; but this the natives do not seem to mind, and they pass over the road with great facility, even when heavy laden...(Wilkes 1970, Vol. IV:188-193)

In 1846, Chester S. Lyman, "a sometime professor" at Yale University visited Hilo, Hawai'i, and stayed with Titus Coan (Maly 1998). Traveling the almost 100 mile long stretch of the "Diocese" of Mr. Coan, Lyman reported that the district of Puna had somewhere between 3,000-4,000 inhabitants (Maly 1998). Entering Puna from Hilo, and traveling to Kea'au along the coast, Lyman offered the following observations:

... The groves of Pandanus were very beautiful, and are the principal tree of the region. There is some grass and ferns, and many shrubs; but the soil is very scanty. Potatoes are almost the only vegetable that can be raised, and these seem to flourish well amid heaps of stone where scarcely a particle of soil could be discovered. The natives pick out the stones to the depth often of from 2 to 4 feet, and in the bottom plant the potato-how it can expand in such a place is a wonder.

Nearly all Puna is like this. The people are necessarily poor—a bare subsistence is all they can obtain, and scarcely that. Probably there are not \$10 in money in all Puna, and it is thought that not over one in five hundred has a single cent. The sight of some of these potatoe patches would make a discontented N.E. farmer satisfied with his lot. Yet, I have nowhere seen the people apparently more contented & happy. (Maly 1998:35)

In Precontact Hawai'i, all land and natural resources were held in trust by the high chiefs (*ali'i 'ai ahupua'a* or *ali'i 'ai moku*). The use of lands and resources were given to the *hoa'āina* (native tenants), at the prerogative of the *ali'i* and their representatives or land agents (*konohiki*), who were generally lesser chiefs as well. In 1848, the Hawaiian system of land tenure was radically altered by the *Māhele 'Āina*. This change in land tenure was promoted by the missionaries and the growing Western population and business interests in the island kingdom. Generally these individuals were hesitant to enter business deals on leasehold land.

By the middle of the nineteenth century the ever-growing population of Westerners forced socioeconomic and demographic changes that promoted the establishment of a Euro-American style of land ownership, and the *Māhele* became the vehicle for determining ownership of native lands. The *Māhele* defined the land interests of Kamehameha III (the King), the high-ranking chiefs, and the *konohiki*. As a result of the *Māhele*, all land in the Kingdom of Hawai'i came to be placed in one of three categories: (1) Crown Lands (for the occupant of the throne); (2) Government Lands; and (3) Konohiki Lands (Chinen 1958: vii, Chinen 1961:13). The chiefs and *konohiki* were required to present their claims to the Land Commission to receive awards for lands provided to them by Kamehameha III. They were also required to provide commutations to the government in order to receive royal patents on their awards. The lands were identified by name only, with the understanding that the ancient boundaries would prevail until the land could be surveyed. This process expedited the work of the Land Commission (Chinen 1961:13).

The "Enabling" or "*Kuleana* Act" (December 21,1849) laid out the frame work by which native tenants could apply for, and be granted fee-simple interest in "*kuleana*" lands, and their rights to access and collection of resources necessary to their life upon the land in their given *ahupua* 'a. The lands awarded to the *hoa* 'āina (native tenants) became known as "*Kuleana* Lands." All of the claims and awards (the Land Commission Awards or LCA) were numbered, and the LCA numbers remain in use today to identify the original owners of lands in Hawai'i.

As a result of the *Māhele*, Keonepoko Nui Ahupua'a was retained by Charles Kana'ina, father of William Lunalilo, and one of the primary landholders of Hawai'i Island '*āina* among the *kaukau* (lesser) *ali'i* prior to the *Mahele* (Kame'eleihiwa 1992:263). No Land Commission Award claims were made in Keonepoko Nui Ahupua'a (Waihona 'Āina database).

In 1862, the Commission of Boundaries (Boundary Commission) was established in the Kingdom of Hawai'i to legally set the boundaries of all the *ahupua* 'a that had been awarded as a part of the $M\bar{a}hele$. Subsequently, in 1874, the Commissioners of Boundaries were authorized to certify the boundaries for lands brought before them. The primary informants for the boundary descriptions were old native residents of the lands, many of which had also been claimants for *kuleana* parcels during the $M\bar{a}hele$. This information was collected primarily between A.D. 1873 and 1885 and was usually given in Hawaiian and transcribed in English as they occurred. The boundaries of Keonepoko Nui were surveyed in 1880 for the estate of Charles Kana'ina (Boundary Commission #127), and place names along the common boundary with Keonepoko Iki are shown on a survey map (Figure 8), which also shows the location of the old Government Road. Beginning in 1903 a *mauka* portion of the Keonepoko Iki *a* (adjacent to the current study area) was commuted as grant parcels and homestead lots (Figure 9).

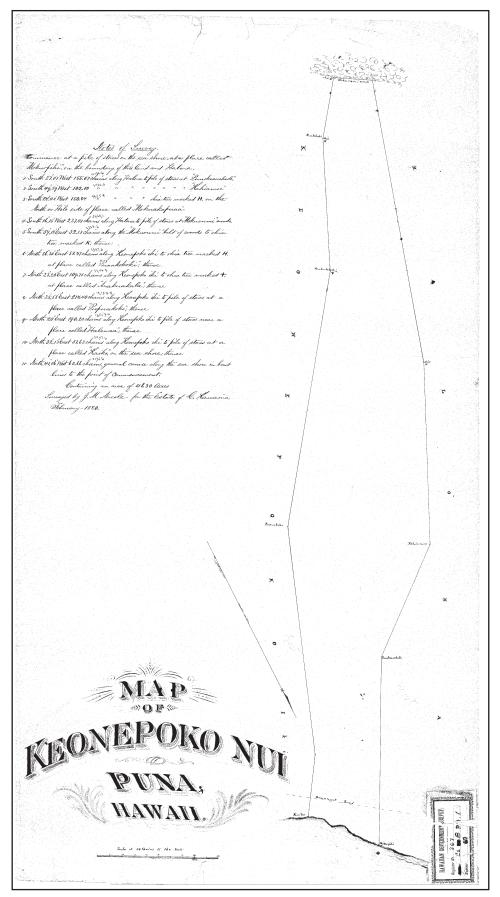


Figure 7. Hawai'i Registered Map 367 prepared in 1880.

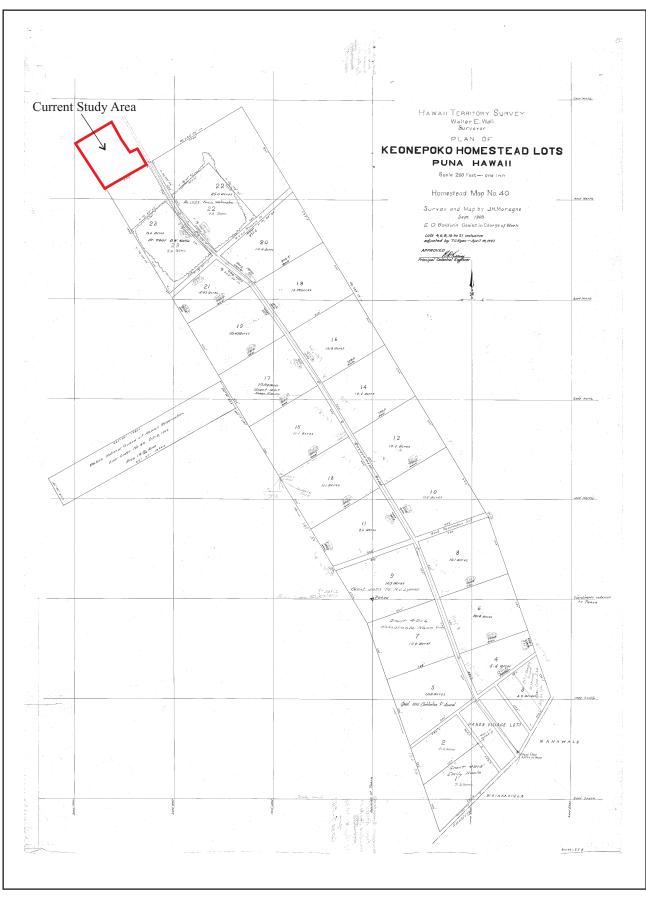


Figure 8. Hawai'i Registered Map 2084 originally prepared in 1903 and updated in 1947, showing current study area.

The population of Puna declined during the early nineteenth century and Hawaiians maintained marginalized communities outside of the central population centers. These communities were located in "out-of-the-way" places. In the aftermath of the $M\bar{a}hele$, economic interests in the region swiftly changed from the traditional Hawaiian land tenure system of subsistence farming and regional trading networks to the more European based cash crops including coffee, tobacco, sugar, and pineapple, and emphasized dairy and cattle ranching. While large tracts of land in lower Puna were used for cattle grazing and sugarcane cultivation, the current project area does not appear to have been used for either purpose.

A GoogleTM earth image (see Figure 3) updated in 2013 show the bulldozer cuts and the graded area within the property, suggesting that those have been done recently. No permits were on record with the County of Hawai'i, so the extents of activities that may have impacted the landscape within the study parcel are unknown.

Prior Archaeological Studies

Records on file at the Department of Land and Natural Resources-State Historic Preservation Division indicate that the subject parcel has never been surveyed for historic properties. However, multiple studies have been conducted within the Keonepoko ahupua'a (Nui and Iki) and within adjacent ahupua'a in inland areas comparable to the current study parcel. The results of these studies (Bordner 1977; Conte and Kolb 1994; Desilets and Rechtman 2004; Franklin et al 1992; McEldowney and Stone 1991; Rechtman 2004; Yent 1983) demonstrate that while the possibility exists that historic properties could be present in the current study area, such sites are few and dispersed across this upland zone. Aside from the extensive lava tube systems containing cultural material and burials documented in two of these studies (McEldowney and Stone 1991; Yent 1983), only five other features were recorded in a over 2,000 acres of total survey area (Bordner 1977; Conte and Kolb 1994; Desilets and Rechtman 2004; Franklin et al. 1992). One of these features was an *ahu*, or cairn (Bordner 1977); three were small terraces interpreted as agricultural planting areas (Desilets and Rechtman 2004; Franklin et al. 1992), and one was interpreted as a ceremonial enclosure (Desilets and Rechtman 2004). A recent study (Rechtman 2012) of a road remnant parcel located to the southeast of the current study are resulted in a determination of no historic properties affected; and a monitoring project (Kasberg and Rechtman 2004) for a reservoir and waterline located to the northwest of the current study area also produced negative results.

Additional studies (Rechtman 2005, 2012) conducted in the *makai* portions of the Keonepoko *ahupua'a* have produced negative findings. One prominent feature of the coastal area is the Old Government Road (SIHP Site 21273), which extended along the coast from Hilo to at least Kalapana. The Old Government Road (also referred to as the Puna Trail) was previously studied by Lass (1997) and Maly (1999) within the *ahupua'a* of Kea'au, well to the east of the current project area. Currently, this road is dirt covered and maintained for vehicular access. Maly (1999) relates that the current alignment of the Old Government Road, which evolved from earlier trail routes, was under construction by the 1840s. The road remained the preferred route of travel between Hilo and the out-lying areas of Puna until 1895, when the Kea'au-Pāhoa Road (Highway 130) was established to access the growing inland population centers and agricultural areas (Maly 1999:6).

CURRENT SURVEY EXPECTATIONS

Given the culture-historical background and the results of previous archaeological work, the expectations for the current study area are limited, and include stacked stone and terraced agricultural features, ceremonial enclosures, and habitation and burial features both Precontact and Historic that may be associated with lava tubes. Previous bulldozing activities within the parcel may have negatively impacted any archaeological resources present in the study area.

FIELDWORK

On December 28, 2012, Robert B. Rechtman, Ph.D., Dave Nelson, B.A., Amy Ketner, B.A., and Lauryl Zenobi, B.A. conducted a thorough surface examination of the study parcel, employing transects with fieldworkers maintaining a 5-meter spacing interval. The property corners were marked with property pins and flagging at the time of the survey. Ground visibility was poor in the undisturbed portions of the parcel, and excellent within areas that had been bulldozed and graded. Previous pedestrian transects conducted in the southern portion of the parcel on October 24, 2012 by SHPD staff archaeologist Theresa Donham identified potential archaeological resources, including possible wall remnants, a lava blister (no evidence of human modification), and a possible boulder alignment. All previously identified potential resources were relocated but were determined to be either the result of bulldozing activities or natural occurrences and not culturally significant sites. No archaeological resources were identified during the current survey.

CONCLUSION AND RECOMMENDATIONS

Given the negative findings of the current study, it is concluded that the development of the proposed medical facility will not significantly impact any known historic properties. However, given the density of vegetation in portions of the study area and the concomitant impairment of ground visibility, it is recommended that a qualified archaeologist conduct a field inspection of the proposed development area after the initial grubbing has been completed and prior to any grading activities. If any archaeological resources are observed during this time they can be documented in a supplemental survey report. If no resources are observed then grading activities can commence. In the unlikely event that any unanticipated resources are unearthed during grading activities, DLNR-SHPD should be contacted as outlined in Hawai'i Administrative Rules 13§13–280.

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