WILSON OKAMOTO
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Honolulu, Hawaii, 96826 USA
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www.wilsonokamoto.com

7739-30
October 11, 2012

FILE COPY
OCT 23 2012
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Mr. Gary Hooser, Director
State of Hawaii
Department of Health
Office of Environmental Quality Control
235 South Beretania Street, 7th Floor
Honolulu, Hawaii 96813-2437

Subject: Final Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communications Services Division
ICSD Waiakea Radio Facility Construction of a New Radio Facility, Waiakea, South Hilo, Island of Hawaii
DAGS Job No. 11-10-0689
Tax Map Key: 2-4-00:170 and TMK; 2-4-001:040

Dear Mr. Hooser:

On behalf of the State of Hawaii Department of Accounting and General Services (DAGS), we are submitting the following enclosures:

1. The original of the DAGS FONSI determination letter.

2. One (1) hard copy of the Final Environmental Assessment in compliance with requirements of Chapter 343, Hawaii Revised Statutes, and Hawaii Administrative Rules, Title 11, Department of Health, Chapter 200.

3. One (1) completed hard copy OEQC Environmental Notice Publication Form.

4. Disk with: File with the OEQC Environmental Notice Publication Form (word doc) and pfd file of the Final Environmental Assessment.

We request that the Final EA/FONSI filing is published in the October 23, 2012 issue of the *Environmental Notice*.

Should you have any questions, please call me at 946-2277.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

Enclosures

cc: D. Jandoc, DAGS, w/o encl.

NEIL ABERCROMBIE
GOVERNOR

Dean H. Seki
Comptroller

Maria E. Zielinski
Deputy Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

OCT 8 2012

PM-3190.2

OCT 23 2012

Mr. Gary Hooser
Director
Office of Environmental Quality Control
Department of Health
State Office Tower
235 South Beretania Street, 7th Floor
Honolulu, Hawaii 96813-2437

'12 OCT 11 A11:31
OFC. OF ENVIRONMENTAL QUALITY CONTROL

Dear Mr. Hooser:

Subject: Final Environmental Assessment/Finding of No Significant Impact (FONSI)

Information and Communications Services Division
Waiakea Radio Facility, Construction of a New Radio Facility
Waiakea, South Hilo, Hawaii
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-00:170 and TMK; 2-4-001:040

The State of Hawaii Department of Accounting and General Services (DAGS) is submitting the required documents related to the Final Environmental Assessment (EA)/Finding of No Significant Impact (FONSI) for the Information and Communications Services Division (ICSD) – Waiakea Radio Facility, Construction of a New Radio Facility, Waiakea, South Hilo, Hawaii; DAGS Job No. 11-10-0689 project in compliance with requirements of Chapter 343, of the Hawaii Revised Statutes, and the Hawaii Administrative Rules, Title 11, Department of Health, Chapter 200. The documents will be submitted by Wilson Okamoto Corporation, our consultant.

A FONSI is determined for this project. The basis for this determination is set forth in Chapter 5 of the Final EA which follows the significance criteria set forth in the Hawaii Administrative Rules, Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules, Section 12. See attached.

Please publish the notice of determination of the Final EA in the October 23, 2012 issue of the *Environmental Notice*.

Should you have any questions, please call Mr. Daniel Jandoc of our Public Works Division, Project Management Branch at 808 586-0476 or Mr. John Sakaguchi of the Wilson Okamoto Corporation at 808 946-2277.

Sincerely,

DEAN H. SEKI
Comptroller

DJ/csc
Attachment
c: D. Jandoc, DAGS-Public Works
J Sakaguchi, WOC

OEQC Publication Form - Environmental Notice

Instructions to Applicant or Agency:
1. Fill out this Publication Form and copy/paste contents into an email. Send to oeqc@doh.hawaii.gov
2. Send a pdf copy of the EA / EIS and 2 hardcopies OR 4 hardcopies to OEQC. Mahalo.

Name of Project:	***Information and Communications Services Division - ICSD Waiakea Radio Facility Construction of a New Radio Facility Waiakea, South Hilo, Island of Hawaii; DAGS Job No. 11-10-0689;***
Applicable Law:	***Chapter 343, HRS***
Type of Document:	***Draft EA***
Island:	***Hawaii***
District:	***Waiakea, South Hilo***
TMK:	***2-4-00:170 and 2-4-001:040***
Status:	
Public Comment Deadline:	
Permits Required:	***Plan Approval; Use Permit; Building Permit***
Name of Applicant:	***State of Hawaii***
Address	***Department of Accounting and General Services***
City, State, Zip	***1151 Punchbowl Street, Honolulu, Hawaii 96813***
Contact and Phone	***Daniel Jandoc*** Phone: ***808.586.0476***
Proposing Agency:	***Same***
Address	
City, State, Zip	
Contact and Phone	
Approving Agency:	
Address	
City, State, Zip	
Contact and Phone	
Send Comments To:	
Consultant	***Wilson Okamoto Corporation***
Address	***1907 South Beretania Street, Suite 400, Honolulu, Hawaii 96826***
City, State, Zip	***Honolulu, Hawaii 96826***
Contact and Phone	***John L. Sakaguchi*** Phone: ***808.946.2277***

Project Summary: Summary of the direct, indirect, secondary, and cumulative impacts of the proposed action (less than 200 words).

The State of Hawaii Department of Accounting and General Services (DAGS) through its Information and Communication Services Division (ICSD) carries out the responsibilities for statewide telecommunications for the Executive Branch of the Hawaii State Government. The ICSD owns and operates microwave radios, antenna systems, towers, buildings, and related facilities and infrastructure throughout the islands. The proposed Waiakea Radio Facility will will support the rebuilding and modernization of the ICSD-owned portion of the Anuenue system, a shared State and Federal statewide communication system. In addition to the ICSD, the Waiakea facility will support the State Civil Defense, the State Department of Public Safety, and the U.S. Coast Guard radio systems. The site will also be designed to accommodate the public safety radio and microwave systems of the County of Hawaii agencies should they decide to locate to the new facility. The Waiakea facility will link the Hilo area to other Anuenue facilities on the Big Island, Maui, Molokai, and Oahu for all types of communication purposes. The Waiakea facility will be a public facility owned and operated by the State of Hawaii.

The Waiakea facility will support multiple radio transmitters that operate in two broad categories: point-to-point microwave and land mobile radio (LMR). The Waiakea facility will meet the Federal Communications Commission (FCC) established maximum permissible exposure (MPE) limits related to electromagnetic radiation. The Waiakea facility will not create interference with AM or FM radio reception or with over the air television reception.

Construction activities would primarily be related to removal to the vegetation and construction of the fenced-in facilities, including the radio equipment building, 120-foot four-sided self supported tower, fuel tank and related security fencing. These activities will create dust and noise while work occurs on the project site. The upper portion of the tower and some of the antennas located on the upper portion of the tower will be above the adjacent trees. Once operational, the only activity would be visits by government employees and contract service personnel to perform periodic monitoring and maintenance functions.

FINAL ENVIRONMENTAL ASSESSMENT

Department of Accounting and General Services
Information & Communication Services Division

ICSD Waiakea Radio Facility
Construction of a New Radio Facility

Waiakea, South Hilo District
Island of Hawaii
TMK: 2-4-001:170 and TMK 2-4-001:04

DAGS Job No. 11-10-0689

Prepared for:

State of Hawaii
Department of Accounting and General Services

Prepared by:

Wilson Okamoto Corporation

October 2012

FINAL ENVIRONMENTAL ASSESSMENT

Department of Accounting and General Services Information & Communication Services Division

ICSD Waiakea Radio Facility Construction of a New Radio Facility

Waiakea, South Hilo District, Island of Hawaii

DAGS Job No. 11-10-0689

TMK: 2-4-001:170 and TMK: 2-4-001:040

Prepared for:

State of Hawaii
Department Accounting and General Services
Division of Public Works
1151 Punchbowl Street
Honolulu, Hawaii 96813

Prepared by:

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
WOC: 7739-30

October 2012

SUMMARY

Proposing Agency:	State of Hawaii Department of Accounting and General Services 1151 Punchbowl Street Honolulu, Hawaii 96813
Accepting Agency:	State of Hawaii Department of Accounting and General Services 1151 Punchbowl Street Honolulu, Hawaii 96813
EA Preparer:	Wilson Okamoto Corporation 1907 South Beretania Street, Suite 400 Honolulu, Hawaii 96826 Contact: John L. Sakaguchi, AICP, Senior Planner Tel: 808.946.2277; Fax: 808.946.2253
Project Location:	Waiakea, South Hilo District, Hawaii
Recorded Fee Owner:	State of Hawaii – both parcels
Tax Map Key:	2-4-001:170 and 2-4-001:040
Area:	1.42 acres (total parcel TMK: 2-4-001:170) 7,858.7 SF (0.180 acres) building-tower area 2.066 acres (total parcel TMK: 2-4-001:040) 2295.7 SF (0.053 acres) access easement 10,154.4 SF (0.233 acres) project site
State Land Use Classification:	Agricultural
County Zoning:	Agriculture A-1a
Proposed Action:	Construction of a 75-foot 4-leg self-supported pipe leg tower with mounted antennas, a three room, single-story approximately 1,092-square foot building, and other supporting facilities for the State of Hawaii Department of Accounting and General Services (DAGS) Information and Communication Service Division to support the State Civil Defense and Department of Public Safety, and the U.S. Coast Guard radio systems. The facility will support modernization of the shared State and Federal microwave system to digital operation. The project site will be designed to accommodate the public safety radio and microwave systems of the County of Hawaii agencies should they decide to locate to the new facility.
Impacts:	No significant impacts are anticipated from construction and operation of the Waiakea facility including a tower, antennas, and related facilities.

Parties Consulted During Draft Environmental Assessment

Federal Agencies
Dept of Army, US Army Engineer District, Honolulu
US Dept of Agric Pacific Basic Agric Research Center
US Dept of Interior of the Fish and Wildlife Service
US Department of the Interior Geological Survey
US Dept of Transportation Federal Aviation Administration
US Coast Guard

State Agencies
Department of Agriculture
Dept of Business, Economic Development and Tourism
DBED&T - State Energy Office
Department of Defense
Department of Hawaiian Home Lands
Department of Health
Dept of Health - Environmental Management Division
Department of Land and Natural Resources
Dept of Land and Nat Resources Historic Preservation Div
Department of Transportation
Office of Hawaiian Affairs
University of Hawaii Hilo
University of Hawaii Water Resources Research Center
University of Hawaii Environmental Center
Hilo Regional Library

County of Hawaii Agencies
County of Hawaii Civil Defense
County of Hawaii Dept of Environmental Management
County of Hawaii Fire Department
County of Hawaii Department of Parks and Recreation
County of Hawaii Planning Department
County of Hawaii Police Department
County of Hawaii Department of Public Works
County of Hawaii Department of Water Supply

Officials
Senator Dwight Takamine
Representative Jerry Chang
Councilman Donald Ikeda

Public Utilities
Hawaii Electric Light Company
Hawaiian Telcom
Oceanic Time Warner Cable

TABLE OF CONTENTS

Page

SUMMARY i

PREFACE vii

1. INTRODUCTION 1-1
   - 1.1 Project Background 1-1
   - 1.2 Other Anuenue Facilities 1-2
   - 1.3 Purpose and Need 1-3
   - 1.4 Project Location and Conditions 1-4
     - 1.4.1 Project Location 1-4
     - 1.4.2 Existing Project Site Conditions 1-9
     - 1.4.3 Other Project Site Data 1-13
   - 1.5 Project Description 1-15
     - 1.5.1 Project Access 1-15
     - 1.5.2 Project Site Plan 1-15
     - 1.5.3 Equipment Building Plan 1-17
     - 1.5.4 Tower and Antennas 1-23
     - 1.5.5 Site Construction 1-25
     - 1.5.6 Electromagnetic Radiation (EMR) 1-32
   - 1.6 Project Operation 1-33
     - 1.6.1 Personnel 1-33
     - 1.6.2 Hours of Operation 1-33
   - 1.7 Preliminary Cost Estimate 1-33
   - 1.8 Project Schedule 1-33

2. DESCRIPTION of EXISTING ENVIRONMENT, IMPACTS and MITIGATION MEASURES 2-1
   - 2.1 Geology and Soils 2-1
     - 2.1.1 Existing Environment 2-1
     - 2.1.2 Impacts and Mitigation Measures 2-2
   - 2.2 Volcanic Hazard 2-3
     - 2.2.1 Existing Environment 2-3
     - 2.2.2 Impacts and Mitigation Measures 2-3

TABLE OF CONTENTS

Page

2.3 Water Resources and Flood Hazard 2-3
2.3.1 Existing Environment 2-3
2.3.2 Impacts and Mitigation Measures 2-4
2.4 Agricultural Lands 2-5
2.4.1 Existing Conditions 2-5
2.4.2 Impacts and Mitigation Measures 2-5
2.5 Hazardous Waste 2-5
2.5.1 Existing Environment 2-5
2.5.2 Impacts and Mitigation Measures 2-6
2.6 Biological Resources 2-7
2.6.1 Existing Environment 2-7
2.6.2 Impacts and Mitigation Measures 2-8
2.7 Traffic 2-10
2.7.1 Existing Environment 2-10
2.7.2 Impacts and Mitigation Measures 2-11
2.8 Air Quality 2-11
2.8.1 Existing Environment 2-11
2.8.2 Impacts and Mitigation Measures 2-12
2.9 Noise 2-13
2.9.1 Existing Environment 2-13
2.9.2 Impacts and Mitigation Measures 2-14
2.10 Archaeological and Cultural Resources 2-15
2.10.1 Existing Environment 2-15
2.10.2 Impacts and Mitigation Measures 2-18
2.11 Cultural Impact Assessment 2-18
2.11.1 Existing Environment 2-18
2.11.2 Impacts and Mitigation Measures 2-19
2.12 Infrastructure 2-19
2.12.1 Water 2-19
2.12.2 Sewer 2-20
2.12.3 Electrical 2-20

TABLE OF CONTENTS

Page

2.13 Visual Considerations 2-21
2.13.1 Existing Conditions 2-21
2.13.2 Impacts and Mitigation Measures 2-22
2.14 Biological Exposure 2-22
2.14.1 Existing Electromagnetic Radiation Environment 2-22
2.14.2 Impacts and Mitigation Measures 2-23

3. RELATIONSHIP to PLANS, POLICIES and CONTROLS 3-1
3.1 Hawaii State Plan 3-1
3.2 Land Use Plans and Policies 3-2
3.2.1 State Land Use District 3-2
3.2.2 County of Hawaii General Plan 3-3
3.2.3 County of Hawaii Zoning 3-5
3.2.4 County of Hawaii Special Management Area 3-6

4. ALTERNATIVES to the PROPOSED ACTION 4-1
4.1 No Action Alternative 4-1
4.2 Other Sites 4-1
4.3 Continued Use of Campus Center Facility 4-2
4.4 Alternative Site Access Plan 4-2

5. DETERMINATION 5-1

6. LIST OF PERMITS and APPROVALS 6-1

7. CONSULTED PARTIES 7-1
7.1 Pre-Assessment Consultation 7-1
7.2 Agencies and Organizations Consulted on the Draft EA 7-2

8. REFERENCES 8-1

TABLE OF CONTENTS (continued)

Page

LIST OF FIGURES

Figure 1.1 Project Site Map. 1-5
Figure 1.2 Tax Map 1-6
Figure 1.3 Project Site Topographic Map. 1-7
Figure 1.4 Project Site Photographs. 1-8
Figure 1.5 Surrounding Land Use Map 1-10
Figure 1.6 Project Site Plan 1-16
Figure 1.7 Building Floor Plan 1-18
Figure 1.8 Building Elevations 1-19
Figure 1.9 Tower Plan 1-26
Figure 1.10 Antenna Coverage Plan 1-27

LIST OF TABLES

Table 1.1 Antenna Plan 1-28

APPENDICES

Appendix A Burial Treatment Plan
Appendix B Pre-Assessment Consultation
Appendix C Archaeological Assessment (No longer included)
Appendix D Cultural Impact Assessment Summary
Appendix E Biological Surveys
Appendix F Draft Environmental Assessment Consultation
Appendix G Revised Burial Treatment Plan

PREFACE

Chapter 343, Hawaii Revised Statues (HRS), as amended, Environmental Impact Statements, requires that a government agency or a private developer proposing to undertake a project consider the potential environmental impacts of the proposed project by preparing an assessment. Use of public funds for a project is among the criteria set forth in Chapter 343, HRS which requires preparation of an environmental assessment. The Waiakea Radio Facility will be constructed and operated with funds provided by the State of Hawaii Department of Accounting and General Services (DAGS).

This Environmental Assessment (EA) has been prepared to meet the requirements of Chapter 343, HRS, as amended, and Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules. Based on Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules, Subchapter 6, Section 11-200-9 (4). Based on the findings and the assessment of potential impacts from the Waiakea Radio facility, construction and operation of the Waiakea Radio facility does not warrant preparation of an environmental impact statement preparation notice and a Finding of No Significant Impact (FONSI) is determined.

The Draft EA stated that DAGS had discussed a shorter more direct access to the Waiakea Radio Facility with the County of Hawaii Department of Water Supply (DWS). This shorter more direct access was included in the Draft EA as an Alternative Site Access Plan and provided an impact analysis of the alternative. Subsequent to the issuance of the Draft EA, the DWS has agreed to allow DAGS to use of the shorter access, pending necessary approval of easements and related land documents. This Final EA will incorporate the Alternative Site Access Plan as the driveway access to the Waiakea Radio Facility and the related changes to overall site plan.

The Waiakea Radio Facility project site is located within the Agricultural District as designated by the State Land Use Commission.

The project site is designated University Use on the County of Hawai'i General Plan 2005 (amended December 2006) by the Land Use Pattern Allocation Guide. The

County of Hawaii zoning designation for the project site is Agriculture (A-1a). The project site is not within the County's Special Management Area (SMA).

The Waiakea Radio Facility will be a public facility owned and operated by the State of Hawaii.

Funding for construction of the Waiakea Radio facility will be provided by the State of Hawaii. No Federal funds will be used for construction of the facility.

1. INTRODUCTION

1.1 Project Background

The State of Hawaii Department of Accounting and General Services (DAGS) through its Information and Communication Services Division (ICSD) carries out the responsibilities for statewide telecommunications for the State of Hawaii. The ICSD owns and operates microwave radio transmission systems, antennas, towers, buildings, and related communications facilities and infrastructure throughout the islands. The ICSD also plans, coordinates, organizes, directs, and administers services to ensure the efficient and effective development of communications systems. Over the years, public safety, emergency response, and law enforcement agencies have benefited from the significant advances in communications technology. To fulfill their public service missions, these government agencies rely on telecommunications systems to communicate and transmit information and data between offices and facilities as well as with personnel in the field.

The Waiakea Radio Facility project will support the rebuilding and modernization of a microwave communication system to be owned by DAGS and shared with the U.S. Coast Guard (USCG) to support State and Federal agencies. This system, known as Anuenue Radio system, is a successor to the "Hawaii Rainbow Communications System," commonly known as "Rainbow", which was an agreement among three State and three Federal agencies to share infrastructure and microwave radio transmission systems. The Rainbow resulted in a statewide system of radio tower facilities and microwave radio interconnections that were used by Federal, State, and local agencies in support of their public safety, emergency response, civil defense, and law enforcement missions. The Rainbow agreement dissolved at the end of September 2002.

The Anuenue radio system, which includes the Waiakea Radio Facility, is a partnership between DAGS and the US Coast Guard. In addition to the two Anuenue partner agencies, other public agencies may need to use the Waiakea facility, including, but not limited to, the University of Hawaii and the County of Hawaii agencies. The Waiakea facility is designed to include the capability to accommodate additional antennas on the tower and radio equipment, if necessary. The Waiakea facility will be administered by the ICSD. Thus, the Waiakea Radio Facility will be a public facility to be used only by public agencies for public purposes.

The Waiakea Radio Facility is one of the radio facilities that was funded by the State Legislature to support the modernization of the Anuenue Radio system. Legislative funding was sought and provided with the understanding that the facilities to be developed would be designed to accommodate the radio communications infrastructure needs of other State and County agencies.

The Waiakea facility will be totally funded by the State of Hawaii and represents a part of the infrastructure provided by the State to the Anuenue Radio system and to the support of other public agency communications projects. DAGS was issued a radio station authorization for a site in Hilo from the Federal Communications Commission. Thus, at this time, no further Federal license will be needed to operate the frequency assigned to the Waiakea Radio Facility.

The Draft EA indicated ICSD will file a "Notice of Proposed Construction or Alteration" (Form 7460-1) with the Federal Aviation Administration (FAA) regarding the Waiakea Radio Facility. On March 28, 2012, ICSD filed a Form 7460-1 with the FAA. On May 2, 2012, the FAA replied that the initial findings of their study indicate that the 120-foot structure as described exceeds obstruction standards and/or would have an adverse physical or electromagnetic interference effect upon navigable airspace or air navigation facilities. The tower penetrates the 40: 1 slope for take-off minimum and (obstacle) departure procedures for Runway 21 and Runway 8 at Hilo International Airport.

The FAA stated, if the structure were reduced in height so as not to exceed 76 feet above ground level (428 feet above mean sea level), it would not have a significant adverse impact and a favorable determination could subsequently be issued. The FAA concluded, pending resolution of the issues as described, the structure is presumed to be a hazard to air navigation.

As part of the Form 7460-1, DAGS had requested approval of a low power FM radio station in the frequency range 88.1 MHz to 107.9 MHz. The FAA replied, the FM frequency range 88.1 MHz to 107.9 MHz is not acceptable. The FAA indicated, only specific FM frequencies can be studied. A FM frequency range cannot be approved.

1.2 Other Anuenue Facilities

In addition to the Waiakea Radio Facility, DAGS has recently constructed facilities on Kahua Ranch in North Kohala, on eastern Oahu on Koko Head, and in central Molokai

at Puu Nana. DAGS also recently completed construction a facility at the Kaupulehu site located south of Mamalahoa Highway in North Kona. DAGS also operates an existing facility at Humuula located in the saddle between Mauna Loa and the southern slope of Mauna Kea. As part of the agreement with DAGS, the US Coast Guard has refurbished its existing facilities at Mauna Kapu, Oahu and at Haleakala, Maui and has constructed new facilities in central Oahu and in east Hawaii near the entrance to Hilo Harbor to accommodate the new digital microwave radio system. Existing State facilities elsewhere on Kauai, Oahu, Lanai, Maui, and Hawaii will also be used to support the Anuenue. The ICSD will license, own, and operate the microwave radio links that will connect the Waiakea Radio Facility to other State sites in Hawaii and to USCG radio sites on Maui.

1.3 Purpose and Need

The purpose of the Anuenue radio system project is to install a modern high capacity digital interconnect to replace the Rainbow analog radio channels used by various agencies. The digital interconnect will facilitate voice, digital radio, video, and data communications. The backbone of the new digital system will have the capability to transmit 155 Mbit/s (megabits per second), which is equivalent to 2016 traditional voice channels or about 17 times the capacity of the Rainbow analog system. The conversion to a digital system is needed to handle the expanding voice and data communications requirements of the public safety community. The conversion to high capacity digital microwave was also prompted by both the Federally-mandated reassignment of analog microwave frequencies to personal communications systems (cellular telephones), and by the growing need of public safety agencies for communications services to properly serve the public in the coming years.

The purpose of the Waiakea Radio Facility project is to replace the existing ICSD radio facility located at the University of Hawaii at Hilo (UH Hilo) Campus Center building. The microwave antenna is mounted on a structure on the roof of the Campus Center building which places the antenna about 50 feet above the surrounding ground level. The microwave radio paths connecting ICSD's equipment at the UH Hilo site to both the Hilo State Office Building located at Aupuni Street and the ICSD Humuula radio facility are becoming unusable due to interference caused by vegetation (tree) growth at number of locations along the microwave path. The Waiakea Radio Facility will allow establishment of radio links needed to support interoperability between the State agencies and the County. Finally, the Waiakea Radio Facility will overcome the existing

problem of poor coverage for State and County public safety land mobile radios operating in the vicinity of the Hilo Hospital.

The height of the Waiakea tower was determined by the minimum height necessary to ensure adequate microwave path clearance to the existing ICSD radio facility at Humuula, the existing State office building located on Aupuni Street, the County of Hawaii Police building and Alala Cone sites, and the UH at Hilo. Alala Cone, located west of Hilo, is the switch point for the State Department of Health's ambulance communications for Hawaii County.

The Waiakea Radio Facility will significantly upgrade the infrastructure that supports local government communications as the facility may also be used by the County of Hawaii to install microwave radio links from the Waiakea facility to other County of Hawaii sites. The planned land mobile radio system (LMR) antennas at the Waiakea Radio Facility will provide radio coverage for government users in the Hilo vicinity.

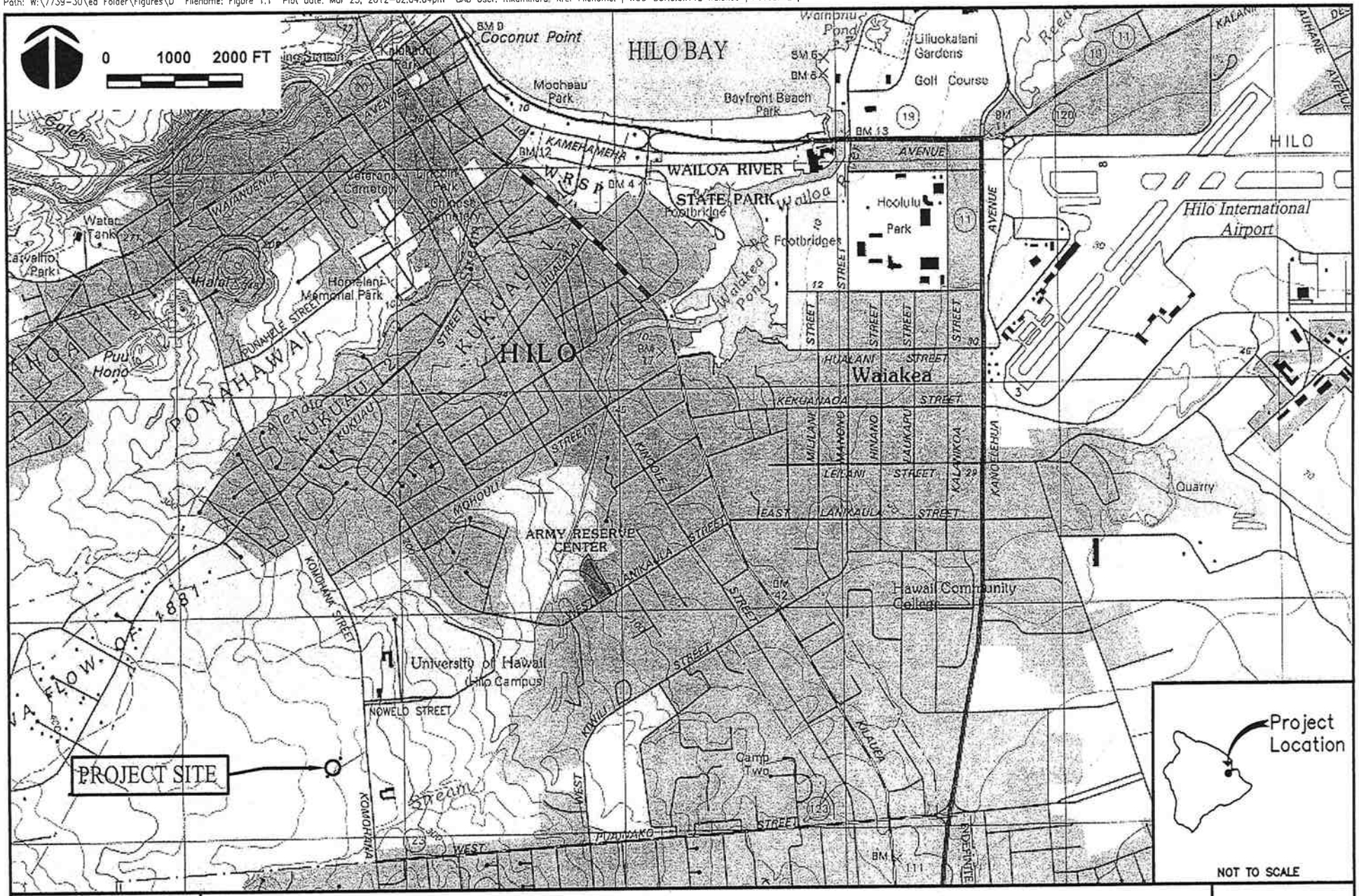
1.4 Project Location and Conditions

1.4.1 Project Location

The Waiakea Radio Facility project site is located in the South Hilo District about 1.7 miles southeast of the State of Hawaii and County of Hawaii office buildings and about 2.0 miles east of Hilo Bay. The Waiakea project site is located about 400 feet west of Komohana Street and north of the Puainako Extension and west of downtown Hilo in TMK: 2-4-001:170, South Hilo District, Hawaii. The project site will occupy an area of about 13,357 square feet (0.306 acres), which includes 3,310 square feet (0.076 acres) for an access easement on the Department of Water Supply parcel TMK: 2-4-001:040. The project site lies at an elevation of about 350 feet mean sea level (msl). Access to the project site will be via Komohana Street and an existing non-exclusive road and utility easement. Figure 1.1 shows the project site map. Figure 1.2 shows the tax map. Figure 1.3 shows the project site topographic map. Figure 1.4 shows the project site photographs.

The radio equipment building and tower are sited on a 1.42-acre parcel owned by the State of Hawaii and under an Executive Order to the University of Hawaii. The project site is currently undeveloped and lies adjacent to the southern end of the US Department of Agriculture (USDA) Pacific Basin Agricultural Research Center, the

Path: W:\7739-30\ea Folder\Figures\D Filename: Figure 1.1 Plot date: Mar 23, 2012-02:04:04pm CAD User: mkamihara, Xref Filename: | WOC-BOR8.5x11L Waiakea | AUTODATE |

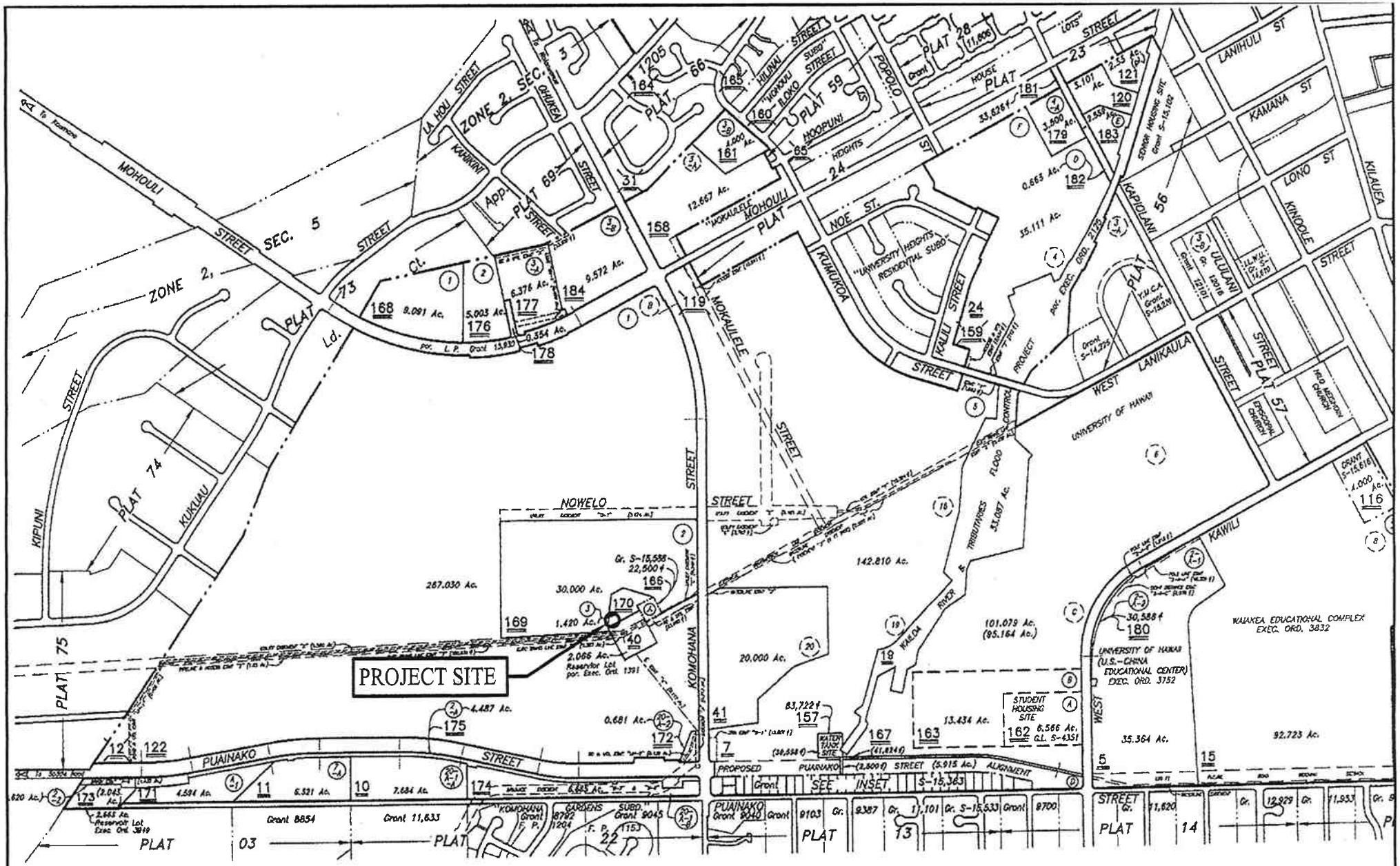


ICSD WAIAKEA RADIO FACILITY, WAIAKEA, SOUTH HILO DISTRICT, PROJ NO. 11-10-089

WILSON OKAMOTO CORPORATION
ENGINEERS | PLANNERS | CONSULTANTS

PROJECT SITE MAP

FIGURE 1.1



0 250 500 FT

Figure 1.2

DEPARTMENT OF FINANCE PROPERTY ASSESSMENT DIVISION MAPPING BRANCH STATE OF HAWAII TAX MAP		
COUNTY OF HAWAII		
ZONE	SECTION	PLAT
2	4	01
SCALE: 1 IN = 500 ft.		

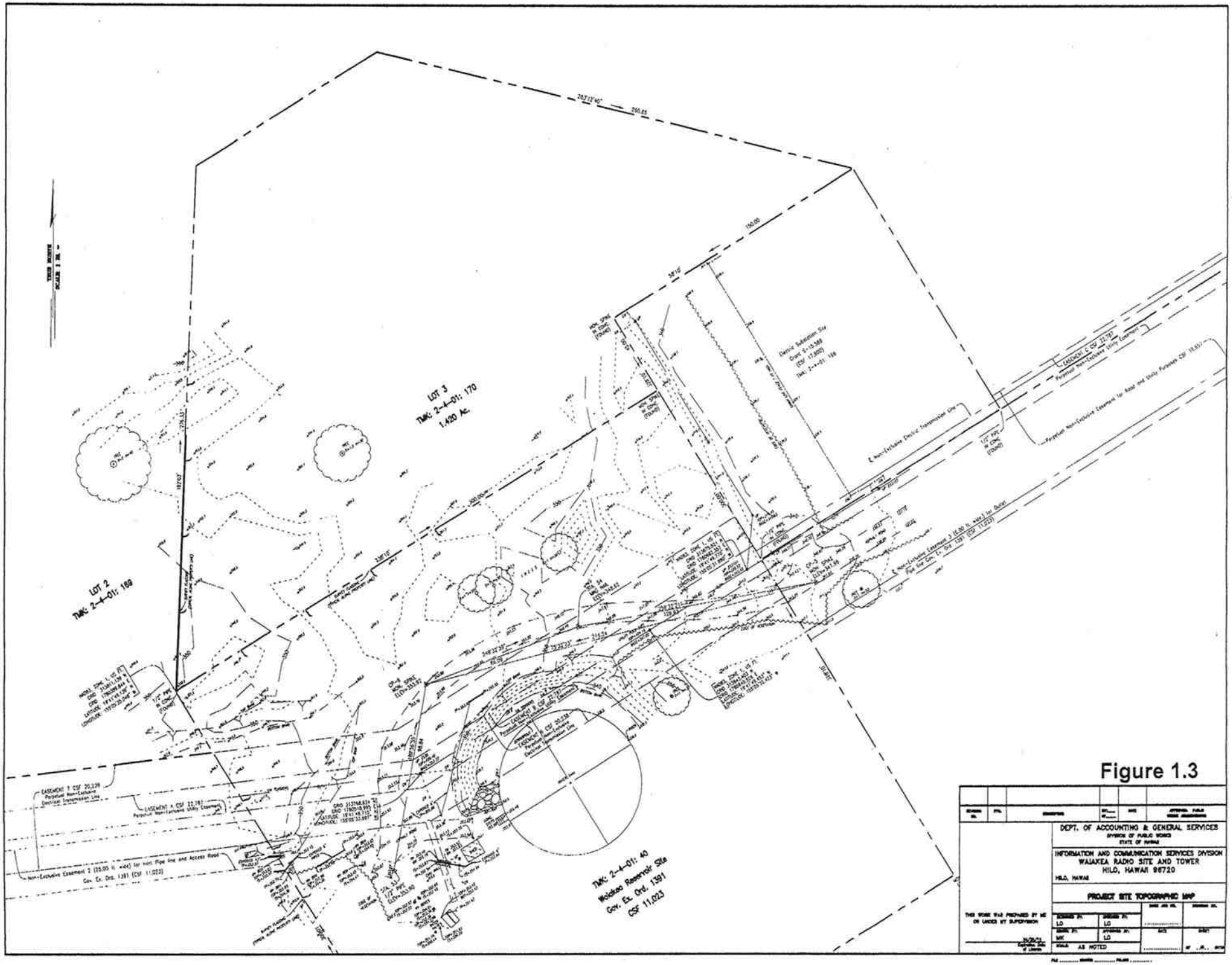

LOT 3
TMK: 2-4-01: 170
1.420 Ac.
LOT 2
TMK: 2-4-01: 169
TMK: 2-4-01: 40
Waiakea Reservoir Site
Gov. Ex. Ord. 1391
CSF 11,023
DEPT. OF ACCOUNTING & GENERAL SERVICES
INFORMATION AND COMMUNICATION SERVICES DIVISION
WAIAKEA RADIO SITE AND TOWER
HILO, HAWAII 96720
PROJECT SITE TOPOGRAPHIC MAP
AS NOTED

Figure 1.3

Project site looking north towards the USDA facilities

Project site looking north

Project site looking north at partial site clearing

Access road from Komohana Street looking east

PROJECT SITE PHOTOGRAPHS FIGURE 1.4

western boundary of the existing Hawaii Electric Light Co., (HELCO) Komohana substation, and the northern boundary of the County of Hawaii Department of Water Supply Waiakea reservoir. The UH Hilo facilities and the University of Hawaii at Manoa College of Tropical Agriculture & Human Resources Komohana Research and Extension Center are located west of Komohana Street. Access to the HELCO and Department of Water Supply facilities will remain with no changes. Access to the USDA facility is via Nowelo Street and will also remain with no changes. Figure 1.5 shows the surrounding land uses.

Hilo International Airport is located northeast of the Waiakea project site. Runway 3 lies about 11,500 feet (2.2 miles) to the northeast of the project site and Runway 8 lies about 14,500 feet (2.75 miles) also to the northeast. See Figure 1.1.

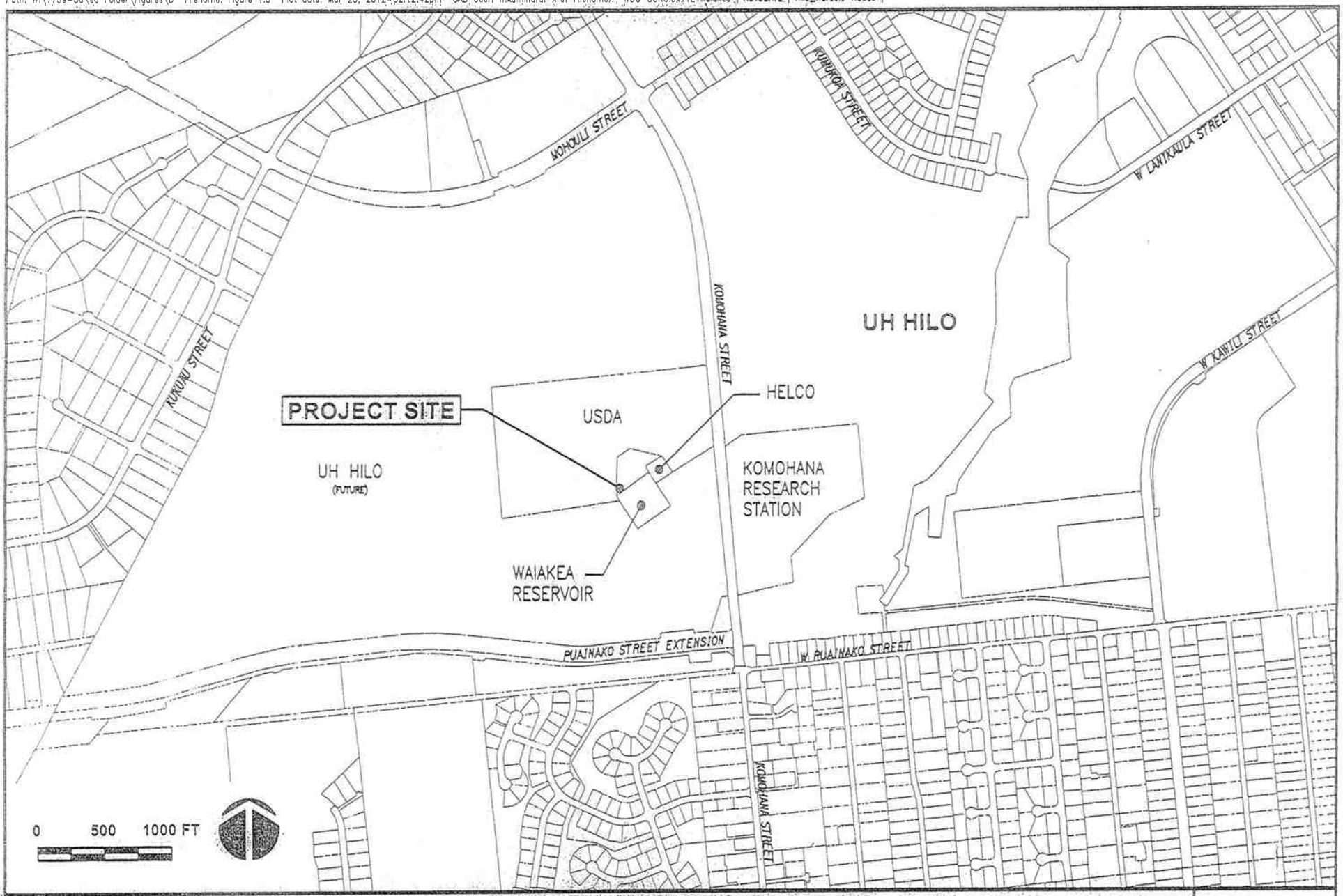
The portion of the project site which includes the radio equipment building and tower area was included in the lands that were part of the preliminary planning for the USDA facility.

1.4.2 Existing Project Site Conditions

The 10,154.4-square-foot project site, including the access easement, is currently undeveloped. No buildings or other structures are located on the project site. The topographic survey shows the project site has almost grade change with most of the site about 350 feet mean sea level (msl). See Figure 1.3.

As previously discussed, a portion of the project site was included in the lands considered during the preliminary planning for the USDA Pacific Basin Agricultural Research Center facility. However, in May 2000, during the preliminary archaeological reconnaissance of the USDA project area, human skeletal remains, consisting of a single, left femur was found in a lava sink feature near the southern end of the 20-acre USDA site. No other remains or cultural materials were located in the sink. Based on the eroded appearance of the bone and the general context, the remains were thought to be traditional Native Hawaiian, most likely prehistoric or early historic. Staff persons from the State Historic Preservation Division (SHPD) were notified and apprised of the find, and a SHPD representative visited the project area. These findings were documented in the USDA Pacific Basin Agricultural Research Center Project Final Environmental Assessment, October 2002.

Path: W:\7739-30\ea Folder\Figures\D Filename: Figure 1.5 Plot date: Mar 23, 2012-02:12:42pm CAD User: mkamihara. Xref Filename:. | WOC-BOR8.5x11L Waiakea | AUTODATE | Hilo_Parcels-Roads |



WILSON OKAMOTO CORPORATION
ENGINEERS | PLANNERS | CONSULTANTS

ICSD WAIAKEA RADIO FACILITY, WAIAKEA, SOUTH HILO DISTRICT, PROJ NO. 11-10-089

SURROUNDING LAND USE MAP

FIGURE 1.5

Following the preliminary reconnaissance, a more intensive archaeological inventory survey was conducted which resulted in 100 percent coverage of the area. Several additional sinks were located in the vicinity of the burial sink. However, careful examination of these other features found no evidence of burial interment or other cultural modification. Based on these findings, confidence was high that all historic properties in the area surrounding the sink were located during the 100 percent survey. The burial site with the single femur was the only historic site recorded within the 20-acre USDA study area and was assigned State Site 50-10-35-22080.

On June 8, 2000, a meeting was held regarding treatment of the burial site with UH Hilo representatives (the landowner), SHPD representatives, a representative of the Hawaii Island Burial Council, and representatives of the USDA. Under the direction of the SHPD Burials Program representative, the site was considered a burial site, and was to be treated as an "inadvertent find." During the meeting, it was preliminarily determined that a preserve area should be created with a 50-foot buffer area around the rim of the burial sink.

On July 27, 2000, a follow-up meeting was held to discuss treatment of the site which was attended by similar representatives to the first meeting. The SHPD determined that the site would require a 50-foot buffer area measured from the sink edge around the sink feature. This area created would be preserved in-place in perpetuity, and delineated with appropriate Native Hawaiian vegetation. There would be no public access to the site, and the area would be recorded with the State Bureau of Conveyance as a preserve area dedicated permanently for protection of the site. UH Hilo representatives indicated that a buffer of about 100 feet would be provided for this burial sink which was more than the 50-foot buffer recommended by SHPD.

It was also discussed that the preserve would not be part of the USDA property and would remain under the control of UH Hilo. SHPD representatives stated that a burial treatment plan would also need to be developed by the UH Hilo, and coordinated with the Hawaii Island Burial Council and SHPD to address the long-term preservation of the site. By removing this preserve from the USDA property, the SHPD determined that the USDA project would have "no adverse effect" on the site. This finding was documented in the May 16, 2001 letter from SHPD.

Based on this background, on August 3, 2011, a burial notice, which included information regarding the DAGS project, was submitted to the Office of Hawaiian Affairs for publication in their August newsletter, *Ka Wai Ola*. On August 17, 20 and 21, 2011, the burial notice was published in the *Honolulu Star Advertiser* and, on August 20, 21, and 24, 2011, in the *Hawaii Tribune Herald*. See Appendix A.

On September 22, 2011, at the Hawaii Island Burial Council monthly meeting, the Burial Treatment Plan was presented to the Council and the SHPD. The plan noted the DAGS plan to construct a radio communication facility, including a tower, on the southeast corner of the burial parcel and proposed passive preservation in place with a 50-foot buffer surrounding the burial site. Access for cultural or lineal descendants would be on an ad-hoc basis by the landowner. See Appendix A.

Prior to the September 22nd meeting, a site survey confirmed the single bone was still present in the sink. During the September 22nd meeting, one member of the public, who had responded to the newspaper notice, provided public testimony regarding the burial. At that time, based on the testimony, the Council deferred action on the Burial Treatment Plan and the buffer.

On October 20, 2011, at the Burial Council monthly meeting, a revision to the Burial Treatment Plan was presented to the Council which provided fencing along the boundary of the access driveway to minimize access to the burial site and/or the possibility of sealing the burial within the sink. After discussion, the Burial Council voted to approve the 50-foot buffer and preservation in-place for the burial and did not request sealing the burial. However, the Council recommended further discussion with the September 22nd meeting testifier, Mr. Lerma, regarding fencing and access to the burial. See Appendix A.

Following the October 20th meeting, on November 8, 2011 a letter was sent to Mr. Lerma requesting his thoughts: 1) on the buffer zone shown in the Burial Treatment Plan; 2) a chain link fence along the north edge of the access driveway; 3) sealing of the burial; and 4) access arrangements to the burial. On November 24, 2011, follow up discussions were held with Mr. Lerma regarding the items set forth in the letter. Based on discussions at that meeting, the 50-foot buffer will be maintained and a fence will be constructed along the northern edge of the access driveway leaving an opening in the

fence at the western end. The burial will not be sealed. Lastly, there will be no special access arrangements. See Appendix A.

On June 7, 2012, DAGS submitted a request to the SHPD for a "no effect determination" regarding construction of the Waiakea Radio Facility, including use of the shorter more direct access route to the project site and deletion of the fencing on the southern boundary of TMK: 2-4-001:170 . On August 20, 2012, SHPD replied that, since the shorter access route involved a change to the previously approved Burial Treatment Plan, another presentation and approval from Hawaii Island Burial Council would be required. On September 20, 2012, a presentation was made to the Burial Council requesting approval of the revised access plan. As part of the meeting, the Burial Council requested further consultation with Mr. Lerma regarding the change to the access plan. On September 25, 2012, a letter was sent to Mr. Lerma requesting his comment regarding the access plan. On October 5, 2012, Mr. Lerma was contacted by telephone to follow up the letter, it was explained that, with the shorter access route, there was no longer a need for the fence on the southern boundary and the burial would be preserved in place. Mr. Lerma accepted the revised plan. On October 8, 2012, SHPD replied that a letter of approval for the revised plan would be issued. See Appendix G.

1.4.3 Other Project Site Data

The Waiakea Radio Facility project site is in the Agricultural District as designated by the State Land Use Commission.

On June 12, 2007, Act 171 (HBI16 HD2 SDI CD1) was signed into law. Act 171, which became effective on July 1, 2007, amended Section 205-4.5, Hawaii Revised Statutes, subsection (a) to identify as a permitted use:

> *"(15) Construction and operation of wireless communication antennas; provided that, for the purposes of this paragraph "wireless communication antenna" means communications equipment that is either freestanding or placed upon or attached to an already existing structure and that transmits and receives electromagnetic radio signals used in the provision of all types of wireless communications services; provided further that nothing in this paragraph shall be construed to permit the construction of any new structure that is not deemed a permitted use under this subsection.'*

According to the County of Hawai'i General Plan 2005 (amended December 2006), the project site is designated as University Use by the Land Use Pattern Allocation Guide. The project site is not within the County's Special Management Area (SMA).

The County of Hawaii zoning designation for the project site is Agriculture (A-1a). Hawaii County Code Chapter 25, Zoning, Division 7, Agriculture Districts, Section 25-5-72 identifies permitted uses in the Agriculture zoned lands. Section, 25-5-72, b. states "the following uses may be permitted in the A district, provided that a use permit is issued for each use: (2) telecommunication antennas and towers."

Hawaii County Code Chapter 25, Section 25-4-11, (Power Lines, Utility Substations, Public Buildings), (c) states "public uses, structures, and buildings and community buildings are permitted uses in any district, provided that the director has issued plan approval for such use". Hawaii County Code Chapter 25, Section 25-4-12, (Telecommunication Antennas), states "a telecommunication antenna or tower may be permitted in the "A" district, if a use permit is obtained for such use." The Waiakea Radio Facility will require a Use Permit approved by the Hawaii County Planning Commission. See Appendix F.

UH Hilo is willing to cooperate in the transfer of the entire 1.42- acre parcel identified as Tax Map Key: 2-4-001: 170 to DAGS for their project and future management. Such transfer will be subject to approval by the President and the Board of Regents of the University of Hawaii.

Subject to such approval, the parcel may need to be transferred to the Department of Land and Natural Resources as a step prior to a transfer by DLNR to DAGS. Additionally, the University of Hawaii would need to provide an easement over the existing access road currently utilized by the County of Hawaii, Department of Water Supply as access to their water tank site and by HELCO as access to their existing substation site. The underlying land area was conveyed to the University of Hawaii subject to these easements and the University would need to issue an additional non-exclusive easement to DAGS for access to the project site.

1.5 Project Description

1.5.1 Project Access

As previously discussed, access to the project site will be via Komohana Street and an existing, non-exclusive road and utility easement. Access to the existing Department of Water Supply reservoir and the Hawaii Light Electric substation will remain with no changes. There will be no access from the USDA facility.

1.5.2 Project Site Plan

The Waiakea project site will include:

1. One 75-foot tall 4-leg pipe-leg, self supported tower with antennas on a concrete mat foundation sited at about elevation 352 feet msl;
2. A 1,092-square foot (SF) radio equipment building, including an equipment room with related mechanical and fire protection systems, rectifier room, emergency generator room, and covered lanai;
3. Related site improvements, including electrical service to provide power to the equipment building;
4. A site grounding system for the tower, building, and fence;
5. A 1000-gallon aboveground double-wall fuel tank;
6. 8-foot high chain link fence topped with three strands of barbed wire placed around the facilities to protect the building and to prevent access to the tower;
7. Concrete paved area to provide vehicle parking near the building entry and access to the base of the tower;
8. A 115-foot long by 12-foot wide asphalt paved access driveway to connect the project site to access road on the DWS parcel.

The project site will be graded to direct surface runoff away from the building entrance and base of the tower toward on-site dry wells. Surface flows will not be directed to adjacent parcels. Figure 1.6 shows the project site plan. (Note, as previously discussed, this is the shorter access project site plan.)

As previously discussed, the project site is located adjacent to the HELCO Komohana Street substation. Electrical service to the Waiakea facility will be provided via an existing HELCO pole and by underground lines along the access driveways to the project site. The Waiakea facility will have a maximum design peak electrical load of about 40 kilowatts to service the battery chargers, air conditioning, and other systems.

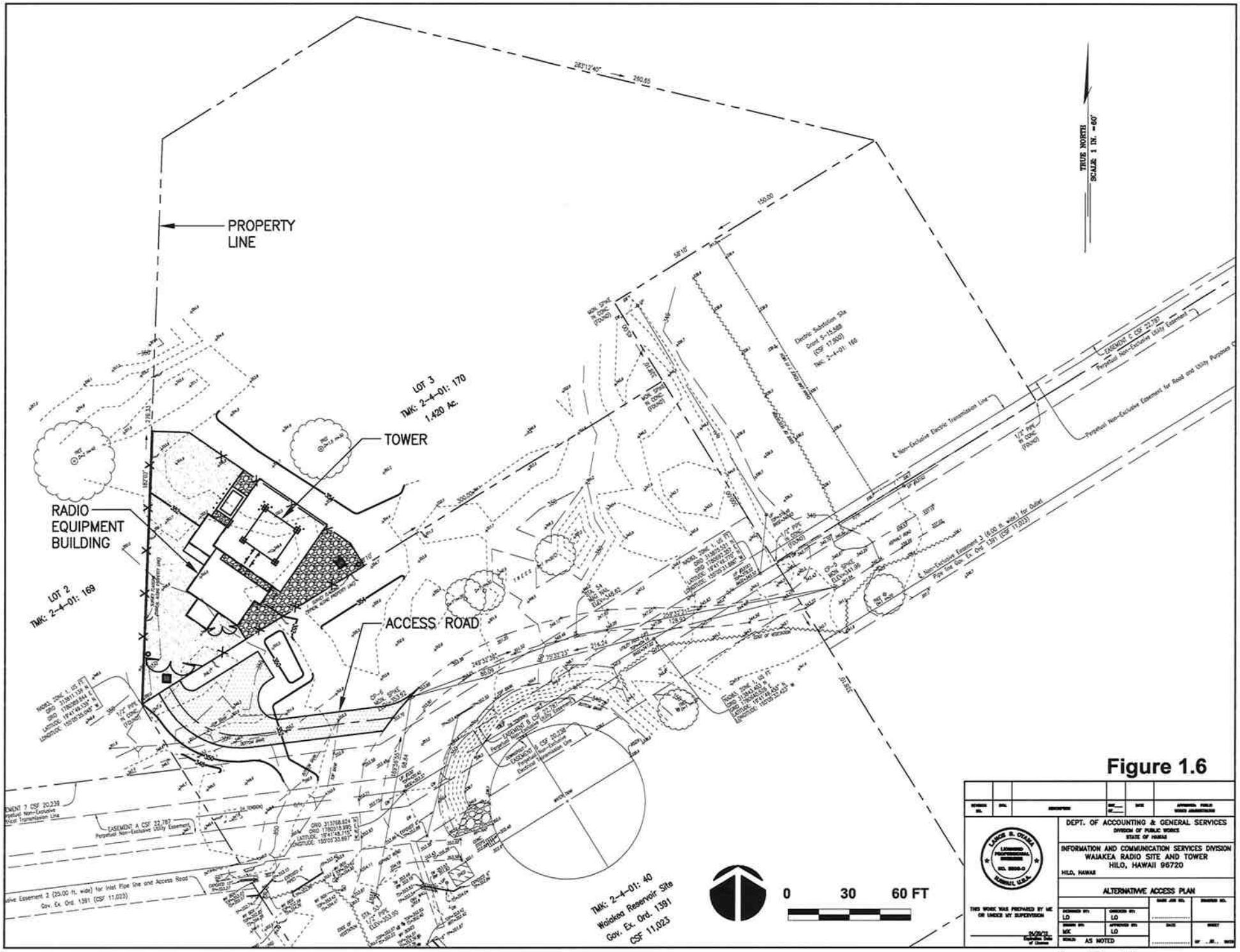

PROPERTY LINE
TRUE NORTH
SCALE: 1 IN. = 60'
LOT 3
TMK: 2-4-01: 170
1.420 Ac.
TOWER
RADIO EQUIPMENT BUILDING
LOT 2
TMK: 2-4-01: 169
ACCESS ROAD
TMK: 2-4-01: 40
Waiakea Reservoir Site
Gov. Ex. Ord. 1391
CSF 11,023
0 30 60 FT
DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
STATE OF HAWAII
INFORMATION AND COMMUNICATION SERVICES DIVISION
WAIAKEA RADIO SITE AND TOWER
HILO, HAWAII 96720
HILO, HAWAII
ALTERNATIVE ACCESS PLAN
AS NOTED

Figure 1.6

The County zoning for the project site is Agriculture (A-1a). Hawaii County Code Chapter 25, Zoning, sets forth the minimum yards. For properties in the A-1a district, the front and rear yards are 30 feet and side yards 20 feet. The site plan shows a 20-foot setback from the eastern boundary (USDA parcel) and a 5-foot setback from the southern boundary (DWS parcel). The 20-foot setback would meet the County code for setback from the property boundary. However, since the 5-foot setback is less than the required 20-foot setback, a variance would be required from the County of Hawaii Planning Department.

No potable water will be required at the project site for domestic or fire protection purposes.

No toilet facilities will be provided at the project site.

1.5.3 Equipment Building Plan

A 3-room, single-story 1,092-square foot (SF) equipment building with 8-inch thick reinforced concrete-masonry unit (CMU) walls and concrete slab floors will be constructed on the project site to accommodate a 700-SF radio equipment room, a 120-SF battery room, and a 84-SF covered lanai. Although connected to the radio and battery rooms, the 188-SF emergency generator room will have a separate entrance. The covered lanai area on the south of the building will provide entry into the radio equipment and battery rooms. A down-shielded security light will be located near the radio equipment room, should night work at the facility be required. The entry to the generator room will have a 5-foot entry door overhang. A 3-foot wide roof overhang will be provided on the west wall of the radio equipment room to protect cable entry ports for the waveguide cables and coaxial cables which will be installed through the entry port on the wall. The overhang will also protect the air condition units. Figure 1.7 shows the building floor plan. Figure 1.8 shows the building elevations.

The south side of the equipment building will have a covered lanai to provide protection against wind and rain for the exterior entrances to the rooms. The entry doors will have a raised threshold to prevent water entry into the interior spaces.

The 700-SF radio equipment room will be designed with a 11-foot high clear height ceiling to accommodate 8-foot tall equipment racks, overhead cable trays, and microwave waveguide and land mobile radio (LMR) coaxial cables as well as cable and

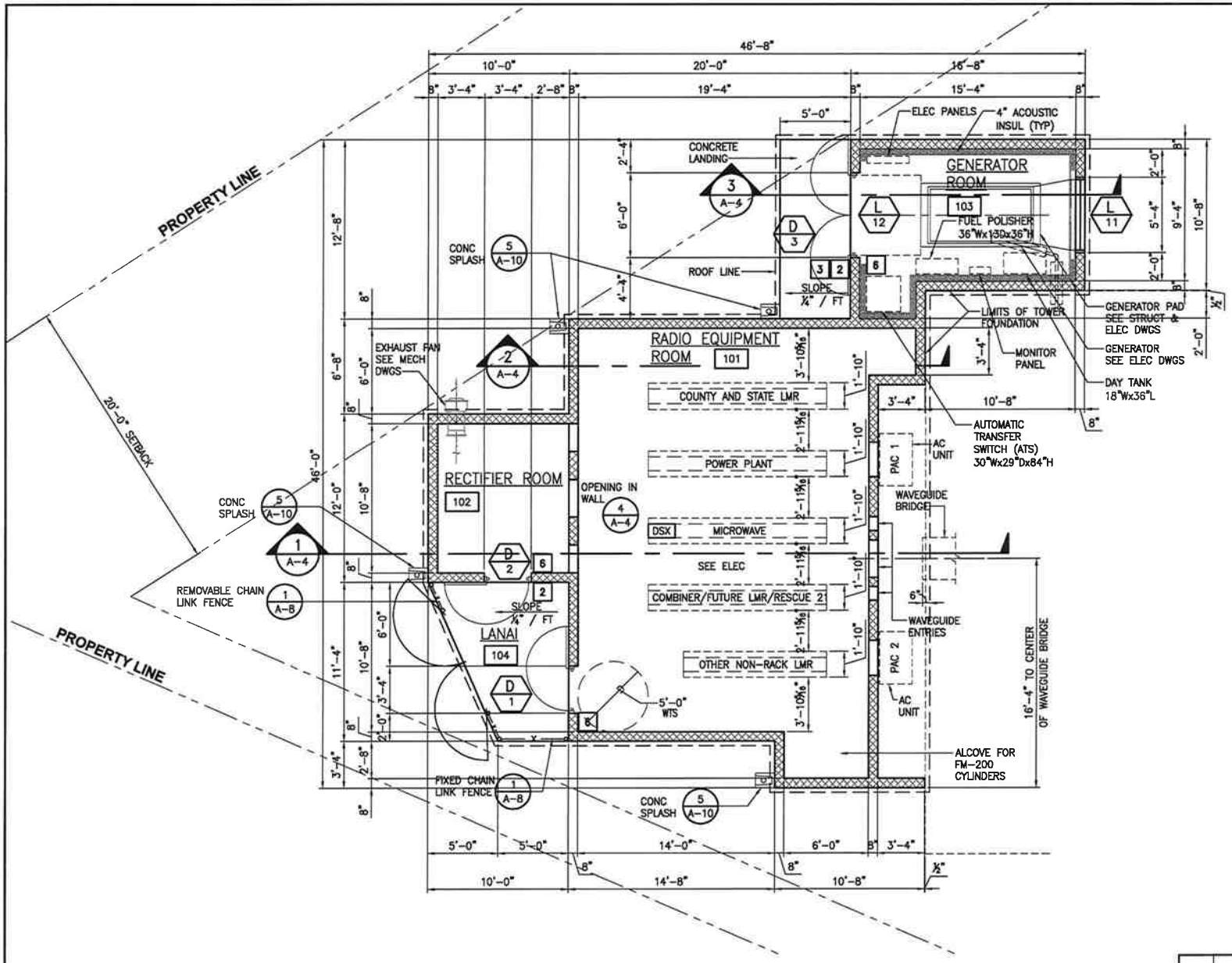


Figure 1.7

FLOOR PLAN

SCALE: 3/32" = 1'-0"

DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
STATE OF HAWAII

INFORMATION AND COMMUNICATION SERVICES DIVISION
WAIAKEA RADIO SITE AND TOWER
HILO, HAWAII 96720

HILO, HAWAII

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DESIGNED BY: LO
CHECKED BY: LO
DRAWN BY: MK
APPROVED BY: LO
SCALE: AS NOTED

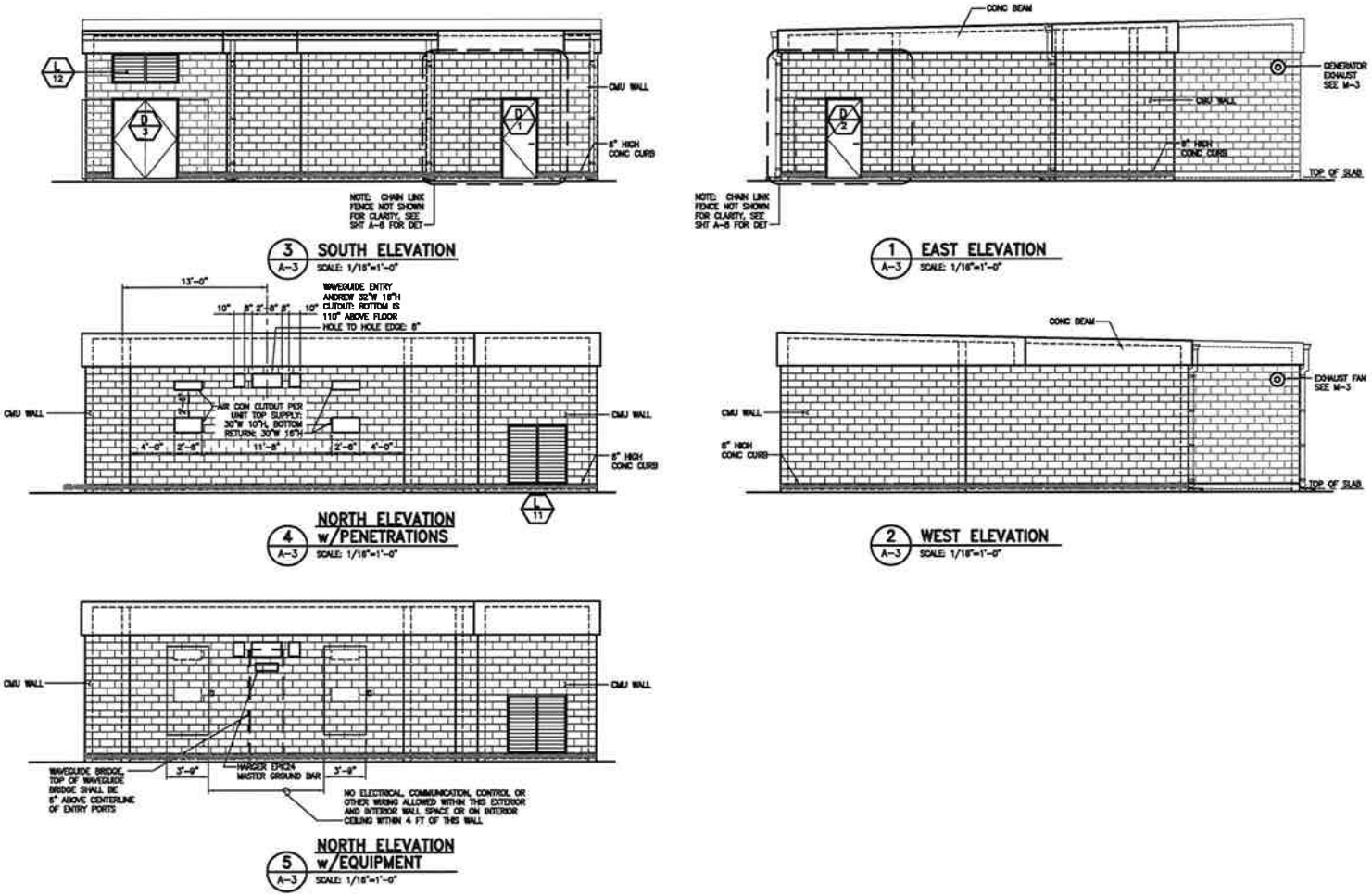


Figure 1.8

BUILDING ELEVATIONS

SCALE: 1/16" = 1'-0"

DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
STATE OF HAWAII

INFORMATION AND COMMUNICATION SERVICES DIVISION
WAIAKEA RADIO SITE AND TOWER
HILO, HAWAII 96720

HILO, HAWAII

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DESIGNED BY: LO
CHECKED BY: LO
DRAWN BY: MK
APPROVED BY: LO
SCALE: AS NOTED

waveguide support hardware. Typically, the equipment racks will be purchased and installed as part of each user agency radio installation project. Although agencies may share the space or equipment within one rack, typically, each agency's systems will be grouped into its own rack and/or cabinet group. Figure 1.9 shows the building elevations.

An integrated approach will be taken to protect the entire facility from the damage caused by lightning strikes. The equipment racks will be isolated from the floor as part of the effort to protect the equipment from damage caused by lighting strikes. An internal ground halo will be provided for connection of non-active metallic items such as door frames and cable racks. Surge protected entry ports will be required for all waveguide, coaxial, signal (such as telephone or similar external system connections), and electrical power connections. Protection will also include the establishment of a single point ground for user equipment. The tower and building ground systems will be interconnected to both a buried ground halo and an exothermically welded connection to the reinforcing bars of the tower (a Ufer ground).

The ground system will include trenches with copper wire and ground rods buried in the trench.

The 120-SF battery room will house several independent backup battery systems, with at least one system to support State equipment. These battery systems are comprised of strings of valve regulated lead acid (VRLA) battery cells which are an improved version of the lead acid batteries found in most vehicles. However, VRLA batteries are supplied with a gelled electrolyte, do not require water, and have been designed not to leak. The VRLA batteries will be equipped with flame arresting safety vents.

Batteries installed at similar facilities elsewhere by the State have used 48 individual cells weighing 88 pounds to make a battery that will support the site equipment for 15 hours. Such a battery contains about 920 pounds of gelled electrolyte and 3,360 pounds of lead plates. The VRLA cells are not classified as hazardous materials.

The batteries are kept under constant charge by rectifiers that also normally provide direct current (DC) power to the critical radio equipment. The rectifiers will operate from commercial power that is backed up by an autostart generator. The use of the

commercial/battery/generator redundancy is standard procedure in the telecommunications industry and at public safety facilities.

Although VRLA batteries have a projected service life of about 20 years, experience to date indicates that replacement should be scheduled at 10-year intervals. It is ICSD policy that all removed batteries be recycled, rather than discarded, in accordance with all Federal and State environmental regulations.

The VRLA batteries will be tested, cleaned, and serviced semi-annually by contractor personnel.

The 188-square foot generator room will house a 40 kilowatt (kW) diesel generator to provide emergency power in the event of a power outage to the commercial system. The DAGS specifications require that the emergency system provide power to the facility in the event of an outage for a 7-day period. The generator will be sized to provide sufficient power for charging the batteries, running the air conditioning for the equipment room and other facility needs. See Figure 1.7.

The emergency generator will be a diesel-fuel generator. The diesel fuel will be stored in a double-walled Convault style above-ground tank. It is expected that at least a 1,000-gallon total fuel capacity will be required to provide for the desired 7-day supply of fuel. The above-ground double-walled tank will not require a spill containment system around its base. The interstitial space between the walls of the tank contains a leak detection system. The tank fill openings contain an overfill protection system to contain any spills when the tank is being filled with fuel.

The emergency generator will be tested by operating it about once a month for a period of no more than a few hours under load test to ensure that it is operational during emergency situations. Contractor personnel will conduct the tests and maintain the emergency power system.

The building will be equipped with a building alarm system to telemeter door entry, high temperature conditions, fire alarms, and other environmental and security indicators. The equipment room will be equipped with an automatic fire suppression system designed for electronic equipment. The fire suppression system will use a compound of carbon, fluorine, and hydrogen as the suppressant which is non-ozone depleting and

safe for use in occupied spaces. County of Hawaii fire protection will be needed at the project site to safely enter the building in the event of a fire and discharge of the fire suppression system. In addition, the equipment room and battery room will be equipped with hand-held fire extinguishers suitable for use in rooms with electronic equipment.

The building will have a single exterior security light located next to the radio room under the roof of the lanai. This light will meet the County of Hawaii code for exterior lighting and will be down-shielded to reduce glare and light spill over from the site. The project site will not be lighted at night, unless required for night repair work.

The mechanical and electrical design drawings have been stamped to meet Hawaii Model Energy Code and Hawaii County Code Chapter 5 which references Chapter 53 Building Energy Efficiency Standards in the Uniform Building Code.

The Waiakea Radio Facility must be in operation at all times without interruption. In addition, since the radio equipment has specific power requirements related to "clean power" and air conditioning to maintain temperature in the radio equipment room, use of photovoltaic power was not considered practical.

DAGS contract specifications do not specifically include a requirement for green architecture for this project given its scope and estimated construction cost.

As previously discussed, the Waiakea project site will not require potable water services for domestic uses or for fire protection. Fire protection for the building will include a fire suppression system in the radio equipment room and hand-held fire extinguishers.

1.5.3.1 Tower and Building Design Criteria

The height of the Waiakea tower was determined by the minimum height necessary to ensure adequate microwave path clearance to the existing ICSD radio facility at Humuula, the existing State office building located on Aupuni Street, the UH Hilo Campus Center facility, and the County of Hawaii Alala Cone and Kulani Cone sites.

The DAGS specifications require the building, tower, and antennas remain operational at wind speeds up to 110 miles per hour (mph) and the facilities survive wind speeds up to 155 mph. Wind speeds of 110 mph are the highest sustained winds expected in a

Safir-Simpson Category 2 hurricane. Wind speeds of 155 mph are the highest reached in a Safir-Simpson Category 4 hurricane.

The Waiakea tower will be designed to meet the guidelines set forth in ANSI/TIA-222-G, *Structural Standard for Antenna Supporting Structures and Antennas*. The new EIA-222-G standard is an all inclusive standard compared to the previous design standards. It replaces the EIA/TIA 222-F and earlier tower standards.

The wind speed in ANSI/TIA-222-G is now designated in 3-second gust format compared to fastest mile which had been used in the previous codes and standards. ANSI/TIA-222-G uses the speed up effect of the wind for towers built on mountain tops. This is especially significant for towers located on mountains, hills and escarpments. Depending on the steepness of the terrain, the wind pressure is increased by factors greater than 1.

Wind loading is increased for the dynamic effects of the wind in the new standard. This also increases the wind pressure used in the design.

In addition to the wind speed factors, ANSI/TIA-222-G uses an "Importance Factor" load modifier for the structures. For normal communication structures it is 1.0. For structures that are classified as emergency communication structures (Structure Class III), a factor of 1.15 is specified. This increases the forces that the towers are designed for so that they have a greater ability to survive and be functional following significant wind storms or hurricanes.

The design criteria used for the tower includes factors which will allow the addition of other antennas, depending on their specific characteristics.

1.5.4 Tower and Antennas

The Waiakea tower is about 2.20 miles (11,500 feet) southwest of Runway 3 and 2.75 miles (14,500 feet) southwest of Runway 8 at the Hilo International Airport. Federal Air Regulations 77.15 require a project that proposes construction or alternation of more than 200 feet in height above the ground level at the site or any construction or alteration of greater height than an imaginary surface extending outward and upward at a slope 100 to 1 for horizontal distance of 20,000 feet from the nearest point of an

airport must file a Form 7460-1, Notice of Proposed Construction or Alteration, with the US Department of Transportation Federal Aviation Administration (FAA).

As previously discussed, on May 2, 2012, the FAA replied the initial findings of their study indicate that the 120-foot structure proposed by DAGS at the Waiakea site exceeds obstruction standards and/or would have an adverse physical or electromagnetic interference effect upon navigable airspace or air navigation facilities. The tower penetrates the 40: 1 slope for take-off minimum and (obstacle) departure procedures for Runway 21 and Runway 8 at Hilo International Airport.

The FAA stated, if the structure were reduced in height so as not to exceed 76 feet above ground level (428 feet above mean sea level), it would not have a significant adverse impact and a favorable determination could subsequently be issued. The FAA concluded, pending resolution of the issues described below, the structure is presumed to be a hazard to air navigation.

The FM frequency range 88.1 MHz to 107.9 MHz is not acceptable. The FAA indicated, only specific FM frequencies can be studied. A FM frequency range cannot be approved. The low power FM station was to be used by UH Hilo.

Based on the FAA findings, DAGS has reduced the tower height from 120 feet to 75 feet and also reduced the number of antennas on the tower. Accordingly, DAGS will provide a 4-leg self-supported pipe-leg, 75-foot high tower which will be used to mount a total of 16 solid microwave antennas, including six 10-foot, one 6-foot, and three 4-foot diameter, and six 2-foot antennas. All of the 2-foot antennas will be for exclusive use by the UH Hilo to permit extension of data networks from the main Hilo campus to as many as five off campus locations. The tower will also support 13 other antennas including side mounted whips, and side mounted smaller antennas such as directional yagis and panel antennas. The top of the tower will be 75 feet above ground level. The FAA also requires a steady burn red obstruction light at the top of the tower.

(Note, based on the FAA letter, the UH Hilo Low Power FM broadcast antennas have been deleted from the tower plan.)

The tower has been sited to ensure that the microwave signals between the Waiakea tower can be received at the existing State radio facility at Humuula, the existing State

office building located on Aupuni Street, the UH at Hilo Campus Center, the US Coast Guard site near Hilo Harbor, the County's Lanikaula Baseyard, and the County of Hawaii Kulani and Alala Cone sites.

The tower will also include work platforms, internal climbing ladders equipped with a safety climb device, ladder and trap door locks, and two vertical waveguide ladders. A covered horizontal waveguide transmission line bridge will be used to carry the cables between the tower and the building entry ports. The tower will not require guy wires. Figure 1.9 shows the tower plan, and Figure 1.10 the antenna coverage plan. Table 1.1 shows the antenna plan.

1.5.5 Site Construction

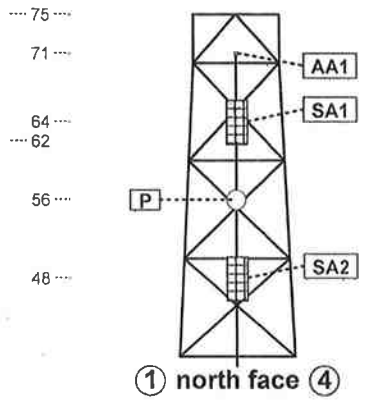
The DAGS design specifications for the Waiakea facility will state construction work should occur during day light hours. No night time work will be allowed.

The construction plans and specifications for the project will include best management practices (BMPs) to minimize erosion on the project site during and after construction and will also include measures to contain runoff on-site during the construction period. Temporary erosion control measures will be used during construction to prevent runoff to nearby areas, including placement of silt fences and or silt barriers to prevent surface runoff from construction areas entering into adjacent areas. These measures will contain surface flows within areas of construction during the construction period.

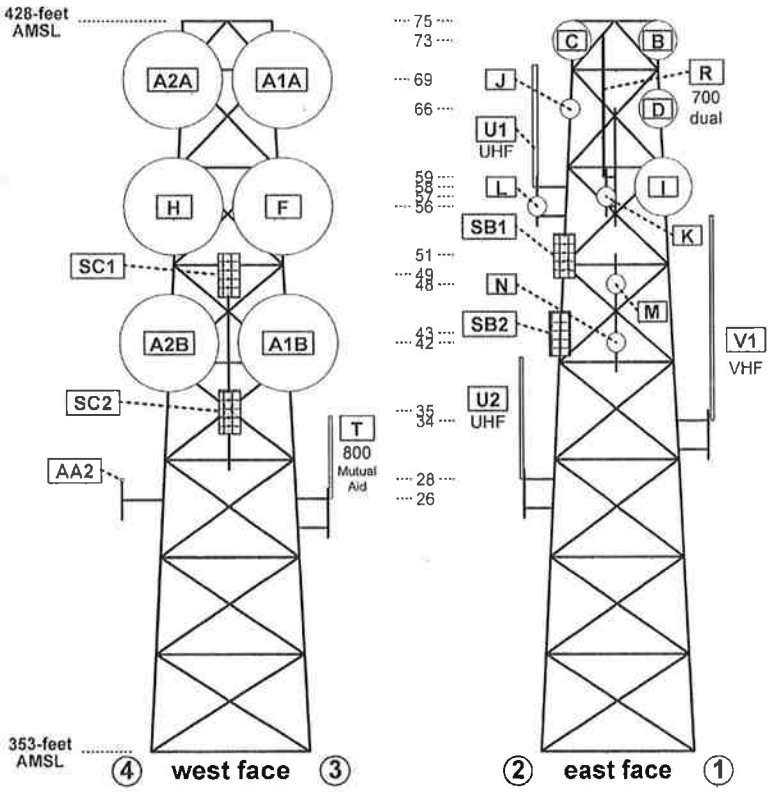
The design drawings will include water pollution and erosion notes related to erosion and sediment control practices for exposed areas and use of materials in the work areas. The contract specifications will also include sections on Environmental Controls and Pollution Control which set forth the requirements to be implemented during construction to protect adjacent areas from runoff and discharge of pollutants.

On November 15, 2011, as part of the Pre-Assessment for this Draft EA, the US Fish and Wildlife Service (USFWS) stated the endangered Hawaiian hawk (*Buteo solitarius*) may be present within the project area. To avoid impacts to Hawaiian hawks, DAGS will avoid clearing any brush or trees during their breeding season of March through September. If DAGS is unable to avoid vegetation clearing during these months, as recommended by the USFWS surveys will be conducted for nests prior to any clearing

State of Hawaii ICSD
Waiakea
rev: 10 August 2012 rjh



↑ only top section shown of the north face ↑



Valmont Microflect
model 108-M85-75 assumed

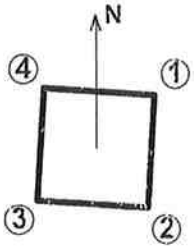
1. 75' high, 4 leg tower; top 5' section legs are vertical; assume 16-ft. leg-to-leg at base.
2. 191-mph survival (NO ice).
3. Full work platform at 60' AGL.
4. Rest platform at 30' AGL.
5. Internal climbing ladder with Safety-Climb Cable.
6. Two 36-inch wide waveguide ladders with 30-inch or less rung to rung spacing side-by-side on face 3-2.
7. OVERSIZE leg anchor bolts.
8. REQUIRED: Attachment points for two outer ring stiff-arms for antennas A1A, A1B, A2A, A2B, D, F, H, and I.
10. Waveguide bridge required
11. Tower aligns with 3.66° true.

Microwave Dish Antennas

A1A Humuula 6 GHz (main)
A1B Humuula 6 GHz (diversity)
A2A Humuula (main)
A2B Humuula (diversity)
B Hilo SOB
C UH Hilo (for ICSD)
D Hilo USCG
F Kulani Cone
H Alala Cone
I County Baseyard
UHH Data Net (Bridgewave AR80X)
J, K, & L – leg or offsett mount
M & N – face mount of Face 1-2
P – face mount of Face 1-4

Whip, Panel, & other Antennas

R 700 MHz dual omni
SA1 & SA2 700 MHz sector
SB1 & SB2 700 MHz sector
SC1 & SC2 700 MHz sector
T 800 MHz omni
U1 & U2 UHF omni
V1 VHF omni
AA1 & AA2 GPS antennas



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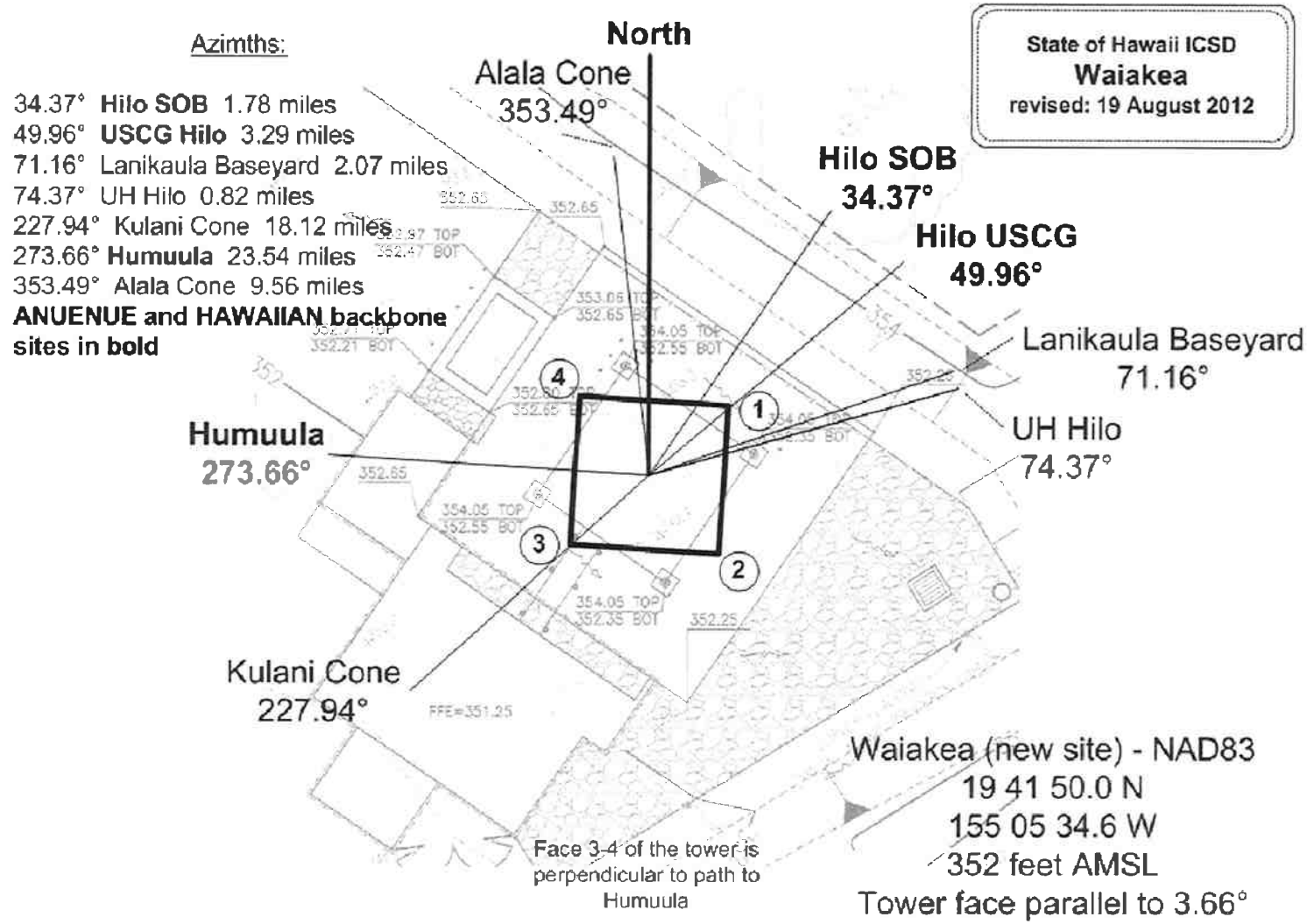
ICSD WAIAKEA RADIO FACILITY, WAIAKEA, SOUTH HILO DISTRICT
PROJ NO. 11-10-089

TOWER PLAN

FIGURE
1.9



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ICSD WAIAKEA RADIO FACILITY, WAIAKEA, SOUTH HILO DISTRICT, PROJ NO. 11-10-089

ANTENNA COVERAGE PLAN

FIGURE 1.10

Table 1.1

Antenna Plan

Label	Antenna Make & Model	Antenna Size & Description	Frequency Band	Feedline(s)	Mount Position & Type (1)	Leg	Elevation in feet AGL:	Azimuth True N	Path Direction	User
A1A	Andrew WEUHX10-59-P3A	10' Diameter Solid Dish Ultra High Performance with radome	6 GHz	2 each EW63	4-1/2" PIPE MOUNT	3	69	273.7	Humuula	State ICSD
A1B	Andrew WEHUP10-71W-P3A	10' Diameter Solid Dish Ultra High Performance with radome	6 GHz	2 each EW63	4-1/2" PIPE MOUNT	3	42	273.7	Humuula	State ICSD
A2A	Andrew WEHPX10-71W-P3A	10' Diameter Solid Dish High Performance with radome	7 GHz to 8 GHz	2 each EW77	4-1/2" PIPE MOUNT	4	69	273.7	Humuula	Anuenue
A2B	Andrew WEHPX-71W-P3A	10' Diameter Solid Dish High Performance with radome	7 GHz to 8 GHz	2 each EW77	4-1/2" PIPE MOUNT	4	42	273.7	Humuula	Anuenue
B	Andrew WEUHX-4-107-P3	4' Diameter Solid Dish Ultra High Performance with radome	11 GHz	2 each EW90	4-1/2" PIPE MOUNT s	1	73	34.4	Hilo SOB	State ICSD
C	Andrew WEUHX4-107-P3	4' Diameter Solid Dish Ultra High Performance with radome	11 GHz	2 each EW90	4-1/2" PIPE MOUNT	2	73	74.4	UH Hilo	State ICSD
D	Andrew WEHPX4-71W-P3A	4' Diameter Solid Dish Ultra High Performance with radome	7 GHz to 8 GHz	2 each EW77	4-1/2" PIPE MOUNT	1	66	50.0	Hilo USCG	Anuenue
F	Andrew WEUHX10-59-P3A	10' Diameter Solid Dish Ultra High Performance with radome	6 GHz	2 each EW63	4-1/2" PIPE MOUNT	3	56	227.9	Kulani Cone	State ICSD
H	Andrew WEUHX10 -59-P3A	10' Diameter Solid Dish Ultra High Performance with radome	6 GHz	2 each EW63	4-1/2" PIPE MOUNT	4	56	353.5	Alala Cone	State ICSD

Table 1.1

Antenna Plan

Label	Antenna Make & Model	Antenna Size & Description	Frequency Band	Feedline(s)	Mount Position & Type (1)	Leg	Elevation in feet AGL:	Azimuth True N	Path Direction	User
I	Andrew WEUHX6-107-P3	6' Diameter Solid Dish Ultra High Performance with radome	11 GHz	2 each EW90	4-1/2" PIPE MOUNT	1	58	71.2	County Lanikaula Baseyard	State ICSD
J	Bridgewave AR80X	2' Diameter Solid Dish with integrated electronics package	71 to 76 GHz and 81 to 86 GHz	SEE UHH NOTE	4-1/2" face-centered PIPE MOUNT	2	66	10.3	UHH Farm? TBD	UHH
K	Bridgewave AR80X	2' Diameter Solid Dish with integrated electronics package	71 to 76 GHz and 81 to 86 GHz	SEE UHH NOTE	(2)	face 2-1	57	66.5	UHH Campus Center? TBD	UHH
L	Bridgewave AR80X	2' Diameter Solid Dish with integrated electronics package	71 to 76 GHz and 81 to 86 GHz	SEE UHH NOTE	(2)	2	56	66.5	UHH Stainback? TBD	UHH
M	Bridgewave AR80X	2' Diameter Solid Dish with integrated electronics package	71 to 76 GHz and 81 to 86 GHz	SEE UHH NOTE	4-1/2" face-centered PIPE MOUNT	face 2-1	48	146.3	UHH Pharmacy? TBD	UHH
N	Bridgewave AR80X	2' Diameter Solid Dish with integrated electronics package	71 to 76 GHz and 81 to 86 GHz	SEE UHH NOTE	4-1/2" face-centered PIPE MOUNT	face 2-1	42	167.2	UHH HIC? TBD	UHH
P	Bridgewave AR80X	2' Diameter Solid Dish with integrated electronics package	71 to 76 GHz and 81 to 86 GHz	SEE UHH NOTE	4-1/2" face-centered PIPE MOUNT	face 1-4	56	328.1	UHH Rainbow Annex? TBD	UHH
R	Sinclair SC432D-HF6-LDF (I40 G06)	Dual 700 MHz Omni 173-in tall Base dia - 3.5-in	769 MHz to 805 MHz tx and rx	2 each 7/8" OD heliax	(3)	face 2-1	55		omni	State ICSD
SA1	Sinclair SE414-SF3PALDF	700 MHz Enclosed 4 dipole array with adjustable side panels	769 MHz to 805 MHz receive	1 each 7/8" OD heliax	(4)	face 1-4	64	105.0	East	State ICSD

Table 1.1

Antenna Plan

Label	Antenna Make & Model	Antenna Size & Description	Frequency Band	Feedline(s)	Mount Position & Type (1)	Leg	Elevation in feet AGL:	Azimuth True N	Path Direction	User
SA2	Sinclair SE414-SF3PALDF	700 MHz Enclosed 4 dipole array with adjustable side panels	769 MHz to 805 MHz transmit	1 each 7/8" OD heliax	(4)	face 1-4	48	105.0	East	State ICSD
SB1	Sinclair SE414-SF3PALDF	700 MHz Enclosed 4 dipole array with adjustable side panels	769 MHz to 805 MHz receive	1 each 7/8" OD heliax	(5)	2	51	210.0	Volcano	State ICSD
SB2	Sinclair SE414-SF3PALDF	700 MHz Enclosed 4 dipole array with adjustable side panels	769 MHz to 805 MHz transmit	1 each 7/8" OD heliax	(5)	2	43	210.0	Volcano	State ICSD
SC1	Sinclair SE414-SF3PALDF	700 MHz Enclosed 4 dipole array with adjustable side panels for beam forming – 60 degrees	769 MHz to 805 MHz receive	1 each 7/8" OD heliax	(4)	face 4-3	49	0.0	Pepeekeo	State ICSD
SC2	Sinclair SE414-SF3PALDF	700 MHz Enclosed 4 dipole array with adjustable side panels for beam forming – 60 degrees	769 MHz to 805 MHz transmit	1 each 7/8" OD heliax	(5)	face 4-3	35	0.0	Pepeekeo	State ICSD
T	Sinclair SC420-HF1LNF	800 MHz Collinear omni, 7.5 dBd gain	806 MHz to 854 MHz	1 each 7/8" OD heliax	3-foot Standoff Wireless Mount, Microflect B3100	3	26		omni	State ICSD

Table 1.1

Antenna Plan

Label	Antenna Make & Model	Antenna Size & Description	Frequency Band	Feedline(s)	Mount Position & Type	Leg	Elevation in feet AGL:	Azimuth True N	Path Direction	User
U1	Sinclair SC381-HF2-LDF	UHF omni 148" tall, 4.5" diameter	403 MHz to 470 MHz	1 each 7/8" OD heliax	(3)	2	58		omni	State ICSD
U2	Sinclair SC381-HF2-LDF	UHF omni 148" tall, 4.5" diameter	403 MHz to 470 MHz	1 each 7/8" OD heliax	(3)t	1	28		omni	State ICSD
V1	Sinclair SC281-HF2LDF	VHF Collinear omni, 5 dBd gain	138 MHz to 158 MHz	1 each 7/8" OD heliax	(3)	1	34		omni	State ICSD
AA1	Maxrad GPS-TMG-SP-40N	GPS Timing reference Receive only with Lightning Protection	1575.42 +/- 10 MHz	1 each 7/8" OD heliax	B1001 2-3/8-inch-OD pipe	face 4-1	71		omni	State ICSD
AA2	Maxrad GPS-TMG-SP-40N	GPS Timing reference Receive only with Lightning Protection	1575.42 +/- 10 MHz	1 each 7/8" OD heliax	B3100 3-foot Standoff Wireless Mount	4	28		omni	State ICSD
WG ladders (two)	Waveguide ladders 36-inch side-by-side	Rung to rung vertical separation must be 30" or less				face 3-2	Ground level to 75' AGL			

General Note:
Furnish and install all antenna mounts hardware, and tie-back bracing listed above and paint after installation using the same process and color as factory used for tower steel.
UHH Note: UHH antenna/electronics units J, K, L, M, M, N, P will all connect together to two 1-1/2-inhc liquid tight conduits (one for power, one for signal/data/control).
Conduits to be installed by UHH.
(1) NOTE: Two Side Strut (stiff-arm) Tie-Back Points shall be provided for the "outer" mounting ring of each large (6' or bigger) solid dish antenna: One for a side of the antenna outer ring and one for the top or bottom of the outer ring. Provide one outer ring tie-back point for each 4' solid dish antenna.
(2) Mounts on bottom portion of Stand-Off mount provided for Antenna R.
(3) B1739 3-foot Standoff Pipe Mount, B1825 Tie-Back Arm, 2 each B996 Strut Brackets, and 1/2 of B1419 Pipe-to-Pipe Adaptor Kit for 3-1/2-in OD antenna.
(4) B2083 2-3/8-in OD Antenna Pipe Mount,2-3/8" OD with appropriate B-1157 style round leg clamp kit on center face mounted 4-1/2 OD pipe.
(5) B2083 2-3/8-in OD Antenna Pipe Mount,2-3/8" OD with appropriate B-1157 style round leg clamp kit.

activity. DAGS will contact the USFWS for survey methodology and further recommendations to avoid impacting Hawaiian hawk nests. See Appendix B.

The USFWS indicated Hawaiian hoary bats roost in exotic and native woody vegetation at heights greater than 15 feet. If trees or shrubs suitable for bat roosting are cleared during the bat breeding season, there is a risk that breeding bats could inadvertently be harmed or killed. Young bats, which are incapable of flight, are particularly vulnerable during the bat-birthing and pup-rearing season (June 1 through September 15). To mitigate adverse impacts, DAGS will not remove woody plants greater than 15 feet tall between June 1 and September 15 throughout the development of the project site

1.5.6 Electromagnetic Radiation (EMR)

The Waiakea Radio Facility will support multiple radio transmitters that operate in two broad categories: point-to-point microwave and land mobile radio (LMR). The new point-to-point microwave transmitters expected to be installed by both the State and other government agencies will operate in the 6 GHz, 7 GHz, and 11 GHz microwave bands. These microwave radio systems will transmit continuously and concentrate their emission in a narrow highly directional beam that does not move. None of the energy from these microwave transmitters is expected to reach, spill, or scatter into any nearby surface areas or structures that can be accessed by people. The microwave radio transmitter output powers are typically in the range of one (1) watt or less.

In addition, 47 Code of Federal Regulations (CFR) Section 1.1310, Radiofrequency (RF) radiation exposure limits, notes the RF limits are generally based on recommended exposure guidelines published by the National Council on Radiation Protection (NCRP) and measurements in "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86, Sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3. In the frequency range from 100 MHz to 1500 MHz, exposure limits for field strength and power density are also generally based on guidelines recommended by the American National Standards Institute (ANSI) in Section 4.1 of Institute of Electrical and Electronics Engineer's (IEEE) "Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,".

The land mobile radio (LMR) systems expected to be installed at the Waiakea Radio Facility will operate on frequencies that range from just above 100 MHz to just under 900 MHz. LMR systems transmit intermittently with their duty cycles related to system

traffic. A typical LMR system would have a transmitter output power of 100 watts (or less) and transmit in an omni-directional (or wide sector) pattern with energy concentrated towards the horizon.

1.6 Project Operation

1.6.1 Personnel

No government or contractor personnel will be assigned to daily operation of the Waiakea facility. However, as previously discussed, contractor personnel will visit the project site on a periodic basis to conduct tests and to perform maintenance service on air-conditioning and power systems and to clean the building and surrounding area. The radio equipment and battery will be serviced at least twice per year by contractor personnel from separate companies with technicians responding intermittently as needed to equipment failures. Technician visits typically would not exceed 20 man-days per year per system (or agency). In total, about 10 to 20 trips/month will be made by contractor personnel to the Waiakea Radio Facility.

1.6.2 Hours of Operation

The radio equipment will operate continuously on a 24 hours per day, 7 days per week basis.

1.7 Preliminary Cost Estimate

The budgeted construction cost, excluding the equipment, for the Waiakea Radio Facility is approximately $2,200,000 which will be funded by DAGS.

1.8 Project Schedule

Construction is expected to start in March 2013 and should require about 10 to 12 months to complete. Antenna and equipment installation and testing will commence in May 2014. The facility should be in operation by June 2014.

2. DESCRIPTION of EXISTING ENVIRONMENT, IMPACTS and MITIGATION MEASURES

2.1 Geology and Soils

2.1.1 Existing Environment

The island of Hawaii was formed by the activity of five shield volcanoes. These are Kohala, which is long extinct; Mauna Kea, which has had activity during recent geologic time; Hualalai, which last erupted in 1801; and Mauna Loa and Kilauea, both of which are still active.

The project site is situated at the eastern end of the island which is located on the lower, northeastern flank of the Mauna Loa Volcano. Mauna Loa Volcano appears to be made up of at least two huge shield volcanoes build around two separate eruptive centers. This Mauna Loa shield has been built principally by eruptions along two rift zones that extend in a south-west and east-northeast direction from the caldera. Rift zones are elongated areas of ground fissures where volcanic activity such as earthquakes and volcanic eruptions are concentrated. In contrast, few eruptions have taken place along the lower northeast rift zone.

In most areas of the world, earthquakes are caused by shifts in the tectonic plates. In contrast, earthquakes in Hawaii are primarily linked to volcanic activity. Earthquake activity in Hawaii generally occurs before or during volcanic eruptions or from underground movement of magma that comes close to the surface without an actual eruption to the surface.

On the island of Hawaii, earthquakes directly associated with the movement of magma are concentrated beneath the active Kilauea and Mauna Loa Volcanoes. Typically, the risk of seismic activity and degree of ground movement decreases with the distance from these active volcanoes. The several significant earthquakes, greater than Magnitude 6, have occurred on the island of Hawaii, including Magnitude 6.2 in North Hilo on April 26, 1973. Based on the geotechnical investigation of the project site conducted in January 2012, the project site does not appear to be located in the immediate proximity of mapped geologic fault structures.

The geotechnical soil borings show the tower site is generally underlain by moderately to slightly fractured basalt rock formation extending to a depth of approximately 51 feet below the existing ground surface. The building site is generally underlain by 1 foot of dense gravel and cobbles overlying closely to moderately fractured basalt rock formation to the maximum depth explored of approximately 20 feet below the existing ground surface. The basalt rock was generally hard to very hard. Groundwater was not encountered in the drilled borings at the time of the field exploration.

The Soil Survey of the Island of Hawaii prepared by the U.S. Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service) shows the soils of the project site to be designated as Lava Flows, Pahoehoe (rLW). This soil type occurs at an elevation from sea level to 13,000 feet. Pahoehoe lava has a billowy, glassy, relatively smooth surface. However, some surface areas are rough and broken, with hummocks and pressure domes.

Pahoehoe lava has no soil covering and is typically bare of vegetation, with the exception of mosses and lichens. In areas of higher rainfall, scattered ohelo berry, aalii, and ohia trees have grown in cracks and crevices.

2.1.2 Impacts and Mitigation Measures

Construction of the radio building and tower will require subsurface excavation for placement of the foundations and footings for the tower and building. This will disturb surface and subsurface soils and displace the soils with on-grade slab foundations which will be placed on the surface of the surrounding the tower and building. However, this disturbance will not adversely affect the soils and geology of the project site and surrounding area. Temporary erosion control measures will be used during construction to prevent soil loss and surface flows to adjacent areas. These mitigation measures will include erection of a silt fence to minimize surface runoff into adjacent areas. These measures will contain loose soil material within the project site to the extent possible during the construction period.

As of March 28, 2012, Ordinance No. 12 27 will be effective by repealing Chapter 5, Building, Hawaii County Code and replacing it with a new Chapter 5. Ordinance No. 12 27 adopted the 2006 International Building Code (IBC) as the applicable code for the construction of buildings, structures, and facilities in the County of Hawaii. The purpose of the seismic provisions in the IBC is primarily to safeguard against major structural

failures and loss of life, not to limit damage or maintain functions. Structures are to be designed and constructed at a minimum to resist the effects of ground motions from seismic events. The site seismic hazard characteristics in the IBC are based on the seismic zone and proximity of the site to active seismic sources.

The Waiakea Radio Facility project will be designed and constructed to meet the requirements of the 2006 IBC and Hawaii County Code Chapter 5 and will comply with seismic loadings established for the County of Hawaii. This will ensure that the Waiakea Radio Facility can meet the seismic loadings established for in the IBC. This will also ensure that the geological conditions at the project site do not adversely affect the building and facilities.

2.2 Volcanic Hazard

2.2.1 Existing Environment

The U.S. Department of the Interior Geological Survey developed volcanic hazard zone maps for the Island of Hawaii and were revised in 1987. The current map divides this island into zones ranked from 1through 9 based on the probability of coverage by lava flows, on a scale of ascending risk from 9 to 1. The Waiakea Radio Facility project site, including the surrounding areas of Hilo, are located Zone 3, where the frequency of eruptions is lower than on Kilauea and Mauna Loa. These zones are based on the locations of probable eruption sites, likely paths of lava flows, and how frequently lava has covered an area in the geologic past.

2.2.2 Impacts and Mitigation Measures

Zone 3 is described as less hazardous than Zones 1 and 2 due to greater distance from recently active vents and/or because the topography makes it less likely that flows will cover these areas. Thus, although the project site could be affected by lava flows, construction of the Waiakea Radio facility will not alter the hazard from lava flows.

2.3 Water Resources and Flood Hazard

2.3.1 Existing Environment

The project site is located at elevation of about 350 feet mean sea level (msl). The U.S. Department of the Interior Geological Survey (USGS) topographic map shows there are

no surface water resources on the project site. The nearby surface water resources include Waiakea Stream located about 1,300 feet to the south of the project site.

The Federal Emergency Management Flood Insurance Rate Map, Community Panel 155166 0880C, Map Revised, September 16, 1988 shows the Waiakea Radio Facility project site and surrounding area are in Zone X, an area determined to be outside the 500-year floodplain. Thus, the project site is not subject to flooding.

On December 22, 2011, 2011, as part of the Pre Assessment for the Draft EA, the State of Hawaii Department of Land and Natural Resource Engineering Division confirmed the project site is located in Flood Zone X. Further, the Flood Insurance Program does not have any regulations for developments within Flood Zone X.

2.3.2 Impacts and Mitigation Measures

There are no surface water sources on the project site. There will be no discharges from the project site directed to waters of the U.S. or waters of the State of Hawaii.

On December 21, 2011, as part of the Pre-Assessment for the Draft EA, the US Army Corps Engineers comment letter (File Number POH-2011-00305) stated that the project site is located entirely within upland lands and not near waters of the U.S. under the regulatory jurisdiction of the Corps. Further, construction of the facility and tower will not involve the discharge of fill material into waters of the U.S., therefore, a Department of the Army (DA) permit will not be required under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, 33 USC 1344.

The project site will be graded to construct the radio building and tower foundation. The project site will be sloped to direct surface flow from rainfall away from the entrances to the building. Dry wells will be used to collect runoff so the flows do not drain onto adjacent parcels.

The construction plans and specifications for the Waiakea project will include best management practices (BMPs) to minimize erosion on the project site during and after construction and will also include measures to contain runoff on-site during the construction period. The design drawings and contract specifications set forth the applicable codes and rules related to pollution prevention during construction, including to surface water sources.

Temporary erosion control measures will be used during construction to prevent runoff to nearby areas, including to the adjacent areas. These mitigation measures will include placement of aggregate filled pouches and erection of a silt fence to prevent surface runoff into adjacent areas. These measures will contain surface flows within the project site during the construction period.

2.4 Agricultural Lands

2.4.1 Existing Conditions

The project site, including the access easement occupies an area of about 0.233 acres of land which may have been cleared at one time. The project site vegetation cover includes primarily uluhe fern *(Dicranopteris linearis)* and some scattered ohia trees *(Metrosideros polymorpha),* exotic (introduced) plants, including strawberry guava *(Psidium cattleianum),* various grasses, and several scattered large albizia trees *(Paraserianthesfalcataria).* Since most of the lands surrounding the project site have been cleared and developed for various urban-related land uses, the surrounding lands do not contain agricultural activity.

The Detailed Land Classification–Island of Hawaii, published by the University of Hawaii Land Study Bureau (LSB), evaluates the quality or productive capacity of certain lands on the island for selected crops and overall suitability to agricultural use. A five-class productivity rating system was established with "A" representing the class of highest productivity and "E" the lowest. Under this system, the Waiakea project site is rated "E" or Very poor.

2.4.2 Impacts and Mitigation Measures

Based on the limited soil cover, the LSB ratings of "E" or Very poor, use of the project site for a telecommunications facility would have not have an adverse impact on the availability of agricultural land in the County of Hawaii. Also, since most of the lands surrounding the project site have been cleared and developed for various urban-related land uses, the surrounding lands do not contain agricultural activity

2.5 Hazardous Waste

2.5.1 Existing Environment

The lands surrounding the Waiakea project site have been developed with various uses, including for the USDA research facility, the DWS reservoir, and the HELCO substation.

The project site shows no evidence of development including structures, buildings, facilities, or underground storage tanks (USTs) which might contain hazardous materials.

2.5.2 Impacts and Mitigation Measures

The Waiakea facility will contain valve regulated lead acid (VRLA) batteries which will generate a direct current (DC) power source for the microwave repeaters and the land mobile radio repeaters. The batteries will not require water and will be equipped with flame arresting safety vents. The VRLA batteries are not classified as hazardous materials and will be mounted over a spill containment system. Thus, the VRLA batteries should not adversely affect the environment of the project site and nearby areas.

The emergency generator will use diesel fuel which will be stored in an above-ground double-walled, concrete encased tank such as those manufactured by Convault. A leak from the inner tanks would be contained in the interstitial space between the walls of the tank. These types of tanks are equipped with a monitor system to detect leaks in the interstitial space between the walls of the tank. It is expected that at least a 1000-gallon fuel capacity will be required to provide for the desired 7-day supply of fuel. According to the U.S. Environmental Protection Agency (EPA), an above-ground double-walled concrete tank will not require a secondary spill containment system around its base.

The fill pipe will be provided with two or more of the following methods to protect them against overfill. These include: (a) direct reading level gauge at the tank which is visible from fill pipe location; (b) valve located within fill-pipe access to close automatically at a specified fill level; and (c) audible high level alarm activated by a float switch at a specified fill level. These measures will protect against spills from overfilling when the tank is being filled with fuel.

The County of Hawaii Fire Department has allowed use of double-walled above-ground fuel storage tanks, including at the other DAGS facilities.

2.6 Biological Resources

2.6.1 Existing Environment

Flora

Large tracts of ohia *(Metrosideros polymorpha)* and uluhe *(Dicranopteris linearis)* forest are found on the windward slopes of the Puna and Hilo Districts; these forests occur on young lava flows and shallow soils. Typically, it is composed of dense almost impenetrable mats of uluhe ferns with scattered, widely spaced ohia or ohialehua trees, up to 40 feet tall.

In March 2012, a site survey was undertaken to determine botanical resources on the project site. The findings shows the vegetation on the site is a mix of scrub 'ohi'a (*Metrosideros polymorpha*), koa haole (*Leucaena leucocephala*) with an 'uluhe (*Dicranopteris linearis*), understory, interspersed with numerous alien species including; strawberry guava (*Psidium cattleianum*), Christmas berry (*Schinus terebinthifolius*), octopus tree (*Schefflera actinophylla*), and numerous alien weedy and grass species. The vegetation on the portion of the project site that has not been cleared is quite dense. None of these botanical species is a listed or candidate threatened or endangered species by the US Fish and Wildlife Service (USFWS) or the DLNR. Appendix E contains biological survey report.

The vegetation surrounding the project site, including the undeveloped portion of the USDA parcel between the HELCO substation and Komohana Street, contains similar vegetation plus a number of ironwood trees and some palms. These trees also appear to be up to 40 to 50 feet tall. This area provides an effective buffer between the Waiakea Radio Facility project site and Komohana Street.

Fauna-Avian

In March 2012, a site survey was undertaken to determine avian resources on the project site. The findings show a total of five avian species were detected during the time spent within the study area. All of the species recorded are alien to the Hawaiian Islands. These findings are also comparable to the results of at least one other survey conducted on this site as part of the USDA project. During the course of that 2001 avian survey conducted on lands, which include the Waiakea Radio Facility project site, eight species of binds were recorded. All of those recorded during that survey are also alien to the Hawaiian Islands. See Appendix E.

Although no seabirds were detected during this survey, it is probable that both the endangered Hawaiian Petrel (*Pterodroma sandwichensis*), and the threatened endemic sub-species of the Newell's Shearwater (*Puffinus auricularis newelli*), over-fly the project area in small numbers between April and the middle of December each year. Both species have been recorded flying to and from their nesting colonies over the greater Hilo area. Both of these pelagic seabird species nest high in the mountains in burrows excavated under thick vegetation, especially 'uluhe (*Dicranopteris lineraris*) fern. Although there is a large amount of 'uluhe on the site, the site is no longer, even if ever was suitable nesting habitat for either of these seabird species. See Appendix E.

During the Pre-Assessment comment process for the Draft EA, on November 15, 2011 (File No. 2012-TA-0070), the USFWS replied that a search of their files indicated the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) and Hawaiian hawk (*Buteo solitarius*) may use the trees on the project site for roosting and nesting. Additionally, the endangered Hawaiian petrel (*Pterodroma sandwichensis*, seabird) may fly over the site when transiting between the ocean and mountainous breeding sites. See Appendix B for the USFWS letter.

The USFWS also stated seabirds may traverse the project area at night during the breeding season (February 1 through December 15).

Lastly, the USFWS stated the endangered Hawaiian hawk *(Buteo solitarius)* may be present within the area of the project site.

2.6.2 Impacts and Mitigation Measures

Flora

Grading for the construction of the Waiakea facility will require removal of the surface vegetation on the project site. Once graded and prepared, the foundation and footings for the building and tower will be constructed. Removal of the surface vegetation will not create an adverse impact to the flora of this area of the island of Hawaii.

The Waiakea Radio Facility project site, including the access easement, contains no listed or candidate threatened or endangered botanical species as set forth by the USFWS. Thus, construction of the Waiakea facility will not have an adverse impact to threatened or endangered species.

Fauna- Avian

To avoid and minimize potential project impacts to federally listed species, the USFWS recommended that the following conservation measures be incorporated into the project::

> Seabirds may traverse the project area at night during the breeding season (February 1 through December 15). Outdoor lighting at this project site could result in seabird disorientation, fallout, injury, or mortality. Seabirds are attracted to lights and may collide with nearby wires, buildings, or other structures, or they may land on the ground due to exhaustion. Downed seabirds are then subject to increased mortality due to collision with automobiles, starvation, or predation by dogs and cats among other predators. Young birds (fledglings) traversing the project area are particularly vulnerable during their initial flights from mountain nesting sites to the sea between September 15 and December 15.
>
> To minimize potential project impacts to seabirds during their breeding season, all outdoor lights should be fully shielded so the bulb can only be seen from below bulb height and only used when necessary. Nighttime construction should be avoided during the seabird fledging period of September 15 through December 15. If a light is required for the 120-foot tower, a flashing red light is recommended by the USFWS, rather than a solid red or white light. The use of flashing red lights has been known to reduce seabird attraction. Additionally, the use of guy-wires poses a collision risk to flying seabirds and we recommend not using any guy-wires for the tower.

The primary cause of mortality in the two aforementioned seabird species is thought to be predation by alien mammalian species at the nesting colonies. Collision with man made structures is considered to be the second most significant cause of mortality of these seabird species in Hawaii. Nocturnally flying seabirds, especially fledglings on their way to sea in the summer and fall, can become disoriented by exterior lighting. When disoriented, seabirds often collide with manmade structures, and if they are not killed outright, the dazed or injured birds are easy targets of opportunity for feral mammals.

As previously stated, the design specifications for the Waiakea facility will state construction work should occur during day light hours. No night time work will be allowed.

To avoid impacts to Hawaiian hawks, DAGS will avoid clearing any brush or trees during their breeding season of March through September. If DAGS is unable to avoid clearing vegetation during these months, as recommended by the USFWS, surveys will be conducted for nests prior to any clearing activity. DAGS will contact the USFWS for survey methodology and further recommendations to avoid impacting Hawaiian hawk nests. See Appendix B.

The construction of the building and tower would not adversely affect the bird population in the area of the project site or any USFWS or DLNR listed or candidate threatened or endangered species.

Fauna – Mammalian

The USFWS indicated Hawaiian hoary bats roost in exotic and native woody vegetation at heights greater than 15 feet. If trees or shrubs suitable for bat roosting are cleared during the bat breeding season, there is a risk that breeding bats could inadvertently be harmed or killed. Young bats, which are incapable of flight, are particularly vulnerable during the bat-birthing and pup-rearing season (June 1 through September 15). To mitigate adverse impacts, DAGS will not remove woody plants greater than 15 feet tall between June 1 and September 15 throughout the development of the project site.

Overall, modification of the project site for Waiakea Radio Facility is not expected to result in significant adverse impacts to mammalian species currently listed as threatened, endangered or proposed for listing by the USFWS or the DLNR.

2.7 Traffic

2.7.1 Existing Environment

The Waiakea project site is located in the South Hilo District about 1.7 miles southeast of the State of Hawaii and County of Hawaii office buildings and about 2.0 miles southeast of Hilo Bay in the developed area of Hilo. Access to the project site will be via Komohana Street and the existing roadway and utility easement which includes an improved access road. Access to the existing Department of Water Supply and HELCO

facilities will remain with no changes. In addition, there would be no access to the Waiakea Radio Facility project site from the USDA facility.

2.7.2 Impacts and Mitigation Measures

Traffic impacts related to construction activities will occur while equipment and materials are moved to the project site. However, this traffic will be short-term occurring during the 10 to 12-month construction period. This should not create an adverse effect to traffic on Komohana Street as the construction traffic will represent a small proportion of the total traffic volume on this roadway. Should oversize and overweight equipment or materials be transported on State highways facilities, a permit will be required from the DOT Highways Division, Hawaii District Office.

Once construction has been completed, no DAGS personnel will be assigned on a daily basis to the Waiakea facility. Contract personnel will visit the project site to conduct tests on the radio equipment and to perform maintenance service on the emergency generator and on other building systems. A total of about 10 to 20 trips per month will occur to conduct the necessary tests and perform maintenance on the equipment at the Waiakea Radio Facility. This level of activity will not create an adverse affect to traffic on Komohaha Street.

During the Pre-Assessment comment process for the Draft EA, on November 17, 2011, the County of Hawaii Police Department indicated, upon reviewing the provided documents and visiting the proposed site, they do not anticipate any significant impact to traffic and/or other public safety concerns. (See Appendix B.) On April 23, 2012, as part of the Daft EA review, the County of Hawaii Police Department again stated they do not anticipate any significant impact to traffic and/or other public safety concerns. See Appendix F.

2.8 Air Quality

2.8.1 Existing Environment

The Department of Health, Clean Air Branch, monitors the ambient air in the State of Hawaii for various gaseous and particulate air pollutants. The US Environmental Protection Agency (EPA) has set national ambient air quality standards (NAAQS) for seven criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone,

and particulate matter (PM_{10} and $PM_{2.5}$). Hawaii also has a state ambient air standard for hydrogen sulfide.

The primary purpose of the statewide monitoring network is to measure ambient air quality. The emissions from the Kilauea Volcano and air quality impacts associated with geothermal energy production are also being monitored at seven Special Purpose monitoring stations on the island of Hawaii.

During 2010, the Special Purpose monitoring stations in communities near the volcano recorded higher levels of S02 and $PM_{2.5}$, with occasional exceedances of the NAAQS for those pollutants.

The EPA considers the volcano a natural, uncontrollable event and therefore the state is requesting exclusion of these NAAQS exceedances from attainment/non-attainment determination. Similarly, during the New Year's fireworks celebration, the $PM_{2.5}$ NAAQS was exceeded at two monitoring stations on Oahu. Use of fireworks is an exceptional event and as with the volcano, the state is requesting exclusion of these exceedances from attainment/nonattainment determination.

The 2010 Annual Summary indicates, excluding the exceedances due to the volcano and fireworks, in 2010 the State of Hawaii was in attainment with all NAAQS.

2.8.2 Impacts and Mitigation Measures

The Waiakea Radio Facility project site is located east of Hilo Bay in the developed area of Hilo. Potential short-term adverse air quality impacts during the construction phase include: 1) generation of fugitive dust from vehicle movement and soil excavation; and 2) exhaust emissions from on-site construction equipment and from construction workers' vehicles traveling to and from the project site. These adverse impacts will be short-term during the period of construction. Construction activities must comply with provisions of Chapter 11-60.1, Hawaii Administrative Rules (DOH), "Air Pollution Control" and, with respect to fugitive dust, Section 11-60.1-33. In addition, the entire project site, including the access easement, is approximately 0.306 acres which will mean a relatively small area of disturbance.

The DAGS Contract Specifications Section 01500 include a standard Environmental Controls section with specific reference to Chapter 11-60. Under air pollution control,

the Environmental Controls specifications include the provision that the contractor must maintain the areas within and outside the project limits free from dust which would cause hazards to the work and to other persons or property. The specifications also state the contractor will be permitted to use accepted methods for dust control such as enclosure and filtering. It is expected that the contractor will comply with State regulations and provide adequate means to control dust during the various phases of construction.

Once construction has been completed, operation of the Waiakea Radio Facility will involve visits by a contractor who will visit the project site to perform periodic maintenance and testing of equipment and systems. This level of activity will not generate sufficient traffic to adversely affect air quality in the area.

The 50 KW standby emergency generator will be tested once or twice per month to ensure proper operation in the event of an outage of the HELCO system. The testing will involve starting the generator, testing the switching systems, and placing the system under load conditions to ensure proper operation. This testing should require operation of the generator for about 3 to 4 hours per month, or less than 50 hours per year. This level of testing of the emergency generator should not create adverse impacts to the air quality in the area.

2.9 Noise

2.9.1 Existing Environment

The Waiakea Radio Facility project site is located in the South Hilo District about 1.7 miles southeast of the State of Hawaii and County of Hawaii office buildings and about 2.0 miles southeast of Hilo Bay in the developed area of Hilo. Noise from vehicular traffic on nearby streets would be the main mobile noise source near the Waiakea project site. In addition, the project site and surrounding areas would be subject to noise from aircraft approaching and departing from Hilo International Airport. Runway 3 lies about 11,500 feet (2.2 miles) to the northeast of the project site and Runway 8 about 14,500 feet (2.75 miles) also to the northeast.

The nearest residence is located is about 1,600 feet south of the project site near the intersection of Komohana Street and West Puainako Street. There are no major stationary sources of noise in the vicinity of the Waiakea project site.

2.9.2 Impacts and Mitigation Measures

Construction activities such as grading, digging for footings and foundations, and erecting the building and tower will create noise. The equipment used for these activities typically include pick-up trucks, excavators, graders, rollers, backhoes, concrete delivery trucks, water tank trucks, hydraulic cranes, and forklifts. Noise generated by this will be short-term during the period of construction. Once construction has been completed, the noise impact will no longer occur. In addition, construction activities will primarily be limited to daytime weekday working hours.

Once constructed has been completed, noise will be generated by vehicles used by contractors and others visiting the project site for testing and other purposes. An average total of about 10 to 20 trips per month will be made to the project site. This level of traffic should not create an adverse affect to the noise environment in the area of the project site.

The County of Hawaii zoning designation for the project site is Agriculture (A-1a). Title 11 Hawaii Administrative Rule State of Hawaii Department of Health Chapter 46, Community Noise Control identifies maximum permissible sound levels for classes of zoning districts classes using the zoning established by the counties. According to Chapter 46, the maximum permissible sound level at any point at or beyond the property line is 70 dBA for zoning district Class C, areas equivalent to lands zoned agriculture. The maximum permissible sound level shall apply in a manner deemed appropriate by Director of the Department of Health.

Chapter 46 §11-46-5, Exemptions, states this chapter shall not apply to the following:

(4) Operation of emergency generators, when installed and used as required and necessary for the protection of public health and safety, provided the best available control technology is implemented.

The emergency generator will be placed within the radio building and will be designed to suppress noise during testing and operation.

2.10 Archaeological and Cultural Resources

2.10.1 Existing Environment

As previously discussed, the project site was included in the lands considered during the preliminary planning for the USDA facility. However, in May 2000, during the preliminary archaeological reconnaissance of the USDA project area, human skeletal remains, consisting of a single, left femur was found in a lava sink feature. No other remains or cultural materials were located in the sink. Based on the eroded appearance of the bone and the general context, the remains were thought to be traditional Native Hawaiian most likely prehistoric or early historic. Staff persons from the State Historic Preservation Division were notified and apprised of the find, and a SHPD representative visited the project area. These findings were documented in the USDA Pacific Basin Agricultural Research Center Project Final Environmental Assessment, October 2002.

Following the preliminary reconnaissance, a more intensive archaeological inventory survey was conducted which resulted in 100 percent coverage of the area. Several additional sinks were located in the vicinity of the burial sink. However, careful examination of these other features found no evidence of burial interment or other cultural modification. Based on these findings, confidence was high that all historic properties in the project area were located during the survey. The burial site with the single femur was the only historic site recorded within the 20-acre study area and was assigned State Site 50-10-35-22080.

The information for State Site # 50-10-35-22080 shows the following:

- Site Type: Sinkhole and associated caves overhangs
- Function: Burial Cave
- Features (#): 1
- Dimensions: 3.5 m X 10m (12 feet by 33 feet)

The Archaeological Inventory Survey Report stated the age, ethnicity, and function (or reason for deposition) of the single human femur within Site 50-1 0-35-22080 is a matter of speculation. Possible scenarios for the deposition of the isolated bone include: (1) deposition by Native Hawaiians as a discarded keep-sake; (2) deposition by Native Hawaiians as the secreted remains of a grave robbed for bone to be used as raw material for fish hook manufacture; and (3) deposition by some other ethnic group as part of a mortuary practice.

Based upon the criteria, Site 50-10-35-22080 (burial sink) was significant under Criterion D, for its information content regarding Traditional Hawaiian mortuary practices, and Criterion E, for its cultural significance to Native Hawaiians.

Given the previously completed and documented field work, no additional archaeological work was conducted at the project site, except to verify the single bone remained in the sink. A field inspection in September 2011 verified the bone remained as previously documented.

Based on this background, on August 3, 2011, a burial notice was submitted to the Office of Hawaiian Affairs for publication in their August newsletter, *Ka Wai Ola*. On August 17, 20 and 21, 2011, the burial notice was published in the *Honolulu Star Advertiser* and, on August 20, 21, and 24, 2011, in the *Hawaii Tribune Herald*. See Appendix A.

On September 22, 2011, at the Hawaii Island Burial Council monthly meeting, the Burial Treatment Plan was presented to the Council and the SHPD. The plan noted the DAGS plan to construct a radio communication facility, including a tower, on the southeast corner of the burial parcel and proposed passive preservation in place with a 50-foot buffer surrounding the burial site. Access for cultural or lineal descendants would be on an ad-hoc basis by the landowner. See Appendix A.

Prior to the meeting, a site survey confirmed the single bone was still present in the sink. During the September 22nd meeting, one member of the public, who had responded to the newspaper notice, provided public testimony regarding the burial. At that time, based on the testimony, the Council deferred action on the Burial Treatment Plan and the buffer.

On October 20, 2011, a revision to the Burial Treatment Plan was presented to the Council which provided fencing along the boundary of the access driveway to minimize access to the burial site and/or the possibility of sealing the burial within the sink. The Burial Council voted to approve the 50-foot buffer and preservation in-place for the burial and did not request sealing the burial. However, the Council recommended further discussion with the September 22nd meeting testifier, Mr. Lerma, regarding fencing and access to the burial. See Appendix A.

Following the October 20th meeting, on November 8, 2011 a letter was sent to Mr. Lerma requesting his thoughts on the fencing and the burial sealing. On November 24, 2011, follow up discussions were held with Mr. Lerma regarding the items set forth in the letter. Based on discussions at that meeting, the 50-foot buffer will be maintained and a fence will be constructed along the northern edge of the access driveway leaving an opening in the fence at the western end. The burial will not be sealed. Lastly, there will be no special access arrangements. See Appendix A.

On June 7, 2012, DAGS submitted a request to the SHPD for a "no effect determination" regarding construction of the Waiakea Radio Facility, including use of the shorter more direct access route to the project site and deletion of the fencing on the southern boundary of TMK: 2-4-001:170. On August 20, 2012, SHPD replied that, since the shorter access route involved a change to the previously approved Burial Treatment Plan, another presentation and approval from Hawaii Island Burial Council would be required. On September 20, 2012, a presentation was made to the Burial Council requesting approval of the revised access plan. As part of the meeting, the Burial Council requested further consultation with Mr. Lerma regarding the change to the access plan. On September 25, 2012, a letter was sent to Mr. Lerma requesting his comment regarding the access plan. On October 5, 2012, Mr. Lerma was contacted by telephone to follow up the letter, it was explained that, with the shorter access route, there was no longer a need for the fence on the southern boundary and the burial would be preserved in place. Mr. Lerma accepted the revised plan. On October 8, 2012, SHPD replied that a letter of approval for the revised plan would be issued. See Appendix G.

(Note: The access easement discussed in the following two paragraphs is no longer being considered by DAGS. It is included for completeness only.)

On March 3, 2012, an archaeological field inspection was conducted along the access easement located on the Department of Water Supply (DWS) parcel TMK: 2-4-001:040. This field inspection was needed since the DWS parcel was not included in the previous archaeological work on the USDA lands. The March 3rd field inspection covered an area of about 45 feet wide (15m) and 120 feet long (40m). With the March 3rd field inspection, the radio equipment and tower area and access driveway in TMK: 3-4-001:170 and access easement have been subject to archaeological surveys.

The March 3, 2012 field survey of the access easement found no historic properties. Based on the results of the field survey and the Archaeological Assessment, no further archaeological work is recommended for the access easement on the DWS parcel TMK: 2-4-001:040. Appendix C from Draft EA is not included in this Final EA.

2.10.2 Impacts and Mitigation Measures

No archaeological sites or features were identified within the radio equipment building and tower area and access driveway. The proposed improvements to the site will consist of the construction of the building, tower and related improvements. Based on the findings of the previous archaeological work for the parcel TMK: 2-4-001:170, no further archaeological work is recommended for the Waiakea Radio Facility project site, including the access easement.

As previously discussed, the Hawaii Island Burial Council voted to approve the 50-foot buffer and preservation in-place for the burial and did not request sealing the burial. Thus, the Waiakea Radio Facility project will not adversely affect archaeological resources.

Although the project is not anticipated to encounter any historic resources, as recommended by SHPD, the general notes in the contract drawings will state that, should archaeological sites such as walls, platforms, pavements or mounds, or remains such as artifacts, burials, concentrations of shell or charcoal be encountered during construction activities, work shall cease immediately and the find shall be protected from further damage. The contractor shall immediately contact the State Historic Preservation Division at 808.981.2979, who will assess the significance of the find and recommend an appropriate mitigation measure, if necessary.

2.11 Cultural Impact Assessment

2.11.1 Existing Environment

House Bill No. 2895 H.D.1 was approved by the Governor on April 26, 2000 as Act 50 which amended Chapter 343, Hawaii Revised Statutes to require a cultural impact assessment be included in the preparation of an Environmental Assessment.

2.11.2 Impacts and Mitigation Measures

To meet the requirements of Act 50, a Cultural Impact Assessment was undertaken for the Waiakea Radio Facility project. The purpose of the assessment is to assess potential impacts to cultural resources and practices as a result of development of the Waiakea Radio Facility project. The Cultural Impact Assessment was conducted by Cultural Surveys Hawaii, Inc. (CSH). Appendix D contains the management summary of the Cultural Impact Assessment. The complete Cultural Impact Assessment report was filed with the Department of Land and Natural Resources State Historic Preservation Division, the Office of Environmental Quality Control (OEQC), and the Department of Accounting and General Services.

CSH attempted to contact Hawaiian organizations, agencies and community members in order to identify individuals with cultural expertise and/or knowledge of the project area and the vicinity. Outreach included efforts to contact 30 individuals and agencies including:

- State Historic Preservation Division (SHPD);
- Office of Hawaiian Affairs (OHA);
- Hawai'i Island Burial Council (HIBC);
- Hui Mālama I Nā Kūpuna o Hawai'i Nei; and
- Hawaiian Civic Club of Hilo.

Of the initial list of 30 government agencies, community organizations and individuals, including residents and cultural practitioners, CSH attempted to contact 17 groups at least twice. Only one detailed interview was held with one party (Mr. Puna Lerma). There were no substantive concerns about the project area per se based on the interviews.

2.12 Infrastructure

2.12.1 Water

Existing Conditions

The Waiakea Radio Facility project site is not served by the County of Hawaii Department of Water Supply system. The Waiakea Radio Facility will not require potable water services for domestic uses or for fire protection.

Impacts and Mitigation Measures

The Waiakea project will not create a need for potable water on the project site. Thus, the Waiakea project will not have an adverse affect to the County's water system, including sources of water.

Fire protection for the building will include a fire suppression system for the radio equipment room and hand-held fire extinguishers.

During the Pre-Assessment comment process for this Draft EA, on November 28, 2011, the County of Hawaii Department of Water Supply indicated they had no objection as the proposed communications tower and related equipment will not require water service.

2.12.2 Sewer

Existing Conditions

The Waiakea Radio Facility project site is not served by the County of Hawaii wastewater system. The Waiakea radio equipment building will not have toilet facilities. Thus, the Waiakea facility will not require wastewater services from the County of Hawaii or use an on-site system for treatment or disposal.

Impacts and Mitigation Measures

The Waiakea Radio Facility will not have an adverse affect to the County's wastewater system nor create adverse affects from the on-site disposal of wastewater.

2.12.3 Electrical

Existing Conditions

Hawaii Electric Light Company (HELCO) provides commercial electrical power to the Hilo area, including to area near the Waiakea project site. As previously discussed, the HELCO Komohana Street substation is located adjacent to the project site. The easement of the utility poles and overhead lines is located south of project site. Three-phase electrical service is provided via overhead lines located along the easement.

Impacts and Mitigation Measures

Electrical service to the Waiakea Radio Facility will be provided via the existing HELCO overhead lines. The location of a transformer to feed the project site will be determined during the design phase.

A new service meter would be located on the equipment building. The Waiakea facility will have a maximum design peak electrical load of about 40 kilowatts to service the battery chargers, air conditioning, and other systems. Thus, the Waiakea facility will not create an adverse effect to the HELCO system, as the existing system has the capacity to accommodate the new loads.

Electrical power for the facility will be purchased from Hawaii Electric Light Co. The batteries, which provide direct current to the radio equipment, are kept under constant charge by rectifiers using commercial power. The other support systems at the site include air conditioners which also rely on commercial power. Additional users could occupy the equipment room without affecting these systems using commercial power.

2.13 Visual Considerations

2.13.1 Existing Conditions

The County of Hawaii General Plan, in the section on Natural Beauty, notes that the natural beauty of the South Hilo District is dominated by Mauna Kea and Mauna Loa. From various locations in South Hilo, there are magnificent views of these mountains. The Natural Beauty section also provides a list of natural beauty sites in South Hilo with a number of sites in Waiakea. This listing by TMK shows most of the sites as located along the Hilo Bay shoreline. None of the sites are located in the vicinity of the project site TMK: 2-4-001:170.

The ohia, strawberry guava, and albiza trees are located on the Waiakea Radio Facility project site and the remainder on the parcel. The combination of ohia and strawberry guava form a dense cover that screens the project site from the adjacent USDA parcel and the surrounding lands in all directions.

The undeveloped portion of the USDA parcel between the HELCO substation and Komohana Street contains similar vegetation plus a number of ironwood trees and some palms. These trees also appear to be up to 40 to 50 feet tall. This area provides an effective buffer between the project site and Komohana Street.

As previously discussed, the project site lies adjacent to a utility easement which contains a number of utility poles with cross arms and up to 6 overhead lines. These utility poles are 60 to 70 feet tall and run both east and west from the HELCO substation

within the utility easement. These utility poles and overhead lines extend to the residential subdivision to the west and across Komohana Street to the east.

2.13.2 Impacts and Mitigation Measures

The Waiakea Radio Facility will be located in an area adjacent to the existing HELCO utility poles and overhead lines, and the nearby existing trees which will remain. Public views of the facility will be confined to glimpses of the upper portion of the new tower at gaps in the tress when traveling along Komohana Street. The 75-foot tower will be slightly higher than the existing adjacent trees and utility poles, some of which are about 70 feet above the surrounding ground level. The tower will not be a single new above ground structure in the area and will not have a significant adverse impact on the scenic views of the slopes of Mauna Kea or Mauna Loa.

2.14 Biological Exposure

2.14.1 Existing Electromagnetic Radiation Environment

Radio frequency (RF) radiation is part of the electromagnetic radiation (EMR) spectrum that applies to frequencies between 3 kilohertz (kHz) and 300 gigahertz (Ghz). A variety of commercial communications and data systems are made possible by transmitting information via electromagnetic waves. For example, most amplitude modulated (AM) radio stations transmit signals in the frequency range of 550 kHz to 1,600 kHz, while frequency modulated (FM) radio stations transmit signals in the frequency range of 88 MHz to 108MHz.

The Federal Communications Commission (FCC) has established maximum permissible exposure (MPE) limits to electromagnetic radiation. A summary of the FCC's "Local Official's Guide to RF" explains:

> The FCC's guidelines establish separate MPE limits for "general population/uncontrolled exposure" and for "occupational/controlled exposure." The general population/uncontrolled limits set the maximum exposure to which most people may be subjected. People in this group include the general public not associated with the installation and maintenance of the transmitting equipment. Higher exposure limits are permitted under the "occupational/controlled exposure" category, but only for persons who are exposed as a consequence of their employment (e.g.,

> wireless radio engineers, technicians). To qualify for the occupational/controlled exposure category, exposed persons must be made fully aware of the potential for exposure (e.g., through training), and they must be able to exercise control over their exposure. In addition, people passing through a location, who are made aware of the potential for exposure, may be exposed under the occupational/ controlled criteria. The MPE limits adopted by the FCC for occupational/controlled and general population/uncontrolled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

The FCC limits for EMR are discussed in detail on the FCC website at http://www.fcc.gov/oet/rfsafety/.

Therefore, any area located outside of a radio facility fence is defined as a "general population/uncontrolled exposure" area. Almost all people live and work in an "uncontrolled" environment filled with radio energy from sources as diverse as broadcast stations (AM, FM, and TV), cellular telephone transmitter sites and handheld cell phones, LMR, wireless computer networks, and natural radio energy sources such as thunderstorms. However, this "uncontrolled" environment is safe because the signal energies are usually well below the MPE limits. Although the Waiakea Radio Facility will be considered an "occupational/controlled exposure" environment, the expected EMR levels both on the ground inside the fenced compound and inside the equipment building will be below the MPE limits for a "general population/uncontrolled exposure" environment. Personnel servicing and testing equipment within the building should not be exposed to an EMR hazard. However, tower maintenance personnel can be exposed to potentially unsafe levels of EMR if proper access and work procedures are not followed.

2.14.2 Impacts and Mitigation Measures

EMR consists of time varying electromagnetic fields that have the characteristic of motion or propagation. Unfortunately, radio frequency EMR is often confused with ionizing radiation which has known biological hazards ascribed to X-rays, gamma rays, and particle beam energies. Even moderate levels of ionizing radiation are dangerous as they have sufficient quantum energy to expel an electron from a molecule. This

expulsion leaves the molecule positively charged and thereby affecting its interactions with neighboring molecules. In biological systems this ionization can alter the molecule functions fundamentally and often irreversibly.

The energies from non-ionizing radiation, such as radio frequency EMR, are much lower such that, even at very high signal intensities, their primary effect is to agitate or vibrate the molecular structure rather than to ionize them. The effect of this agitation is to produce heat. In humans, the heat produced by such exposure is undetectable above the heat produced by the normal metabolic rate. Even at intentional exposure, the thermoregulatory capabilities of mammals and birds can adequately accommodate dissipation of the added heat load.

In a rigorous study completed for a DAGS facility with a similar mix of emitters, the distances required to keep personnel safe from EMR hazards were less than 20 feet for all emitter types and the only hazardous area associated with the microwave emitters occurred immediately in front of those antennas. The lowest microwave dish antenna will be mounted with its centerline at 42 feet above ground level and its bottom rim at 37 feet above ground level. Thus, the Waiakea Radio Facility will not produce an EMR hazard to people or animals beyond the project site fence line.

3. RELATIONSHIP to PLANS, POLICIES and CONTROLS

3.1 Hawaii State Plan

The Hawaii State Plan, adopted in 1978 and revised in 1988, establishes the overall theme, goals, objectives, and priority guidelines to guide the future long-range development of the State. The Waiakea Radio Facility supports and is consistent with the following State Plan objectives and policies:

Section 226-6 Objectives and policies for the economy - in general.

> *(b) (6) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.*

The Waiakea Radio Facility will involve construction of new facilities at a new site. The Waiakea Radio Facility will increase the level of construction activity on the County of Hawaii during the period of construction which will enhance the state's growth objectives.

Section 226-10.5 Objectives and policies for the economy – information industry.

> *(b) (1) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth in the information industry.*

The Waiakea Radio Facility will enhance the voice communication and data transmission capabilities of public agencies to provide information to all areas of the public sector. The facility has been planned to accommodate the future needs to the public agencies using the Anuenue system.

Section 226-11 Objectives and policies for the physical environment - land-based, shoreline, and marine resources.

> *(b) (3) Take into account the physical attributes of areas when planning and designing activities and facilities.*

The Waiakea Radio Facility is located adjacent to the HELCO Komohana substation which includes a series 60 to 70-foot high utility poles with overhead electrical transmission lines located along an existing utility easement. This co-location with the utility poles towers minimizes the visual impact from the facility on the surroundings. The Waiakea Radio Facility project site has also been designed to take into account the topographic conditions on the project site to minimize excavation or grading.

Section 226-14 Objectives and policies for facility systems – general.

> *(b) (1) Accommodate the needs of Hawaii's people through the coordination of facility systems and capital improvement priorities in consonance with the state and county plans.*

The Waiakea facility has been planned to be jointly used by Federal, State and County public agencies to provide vital transmission of voice and data communications. The Waiakea facility will be a single facility which can accommodate the needs of various public agencies.

3.2 Land Use Plans and Policies

3.2.1 State Land Use District

The Hawaii Land Use Law of Chapter 205, Hawaii Revised Statutes (HRS), classifies all land in the State into four land use districts: Urban, Agricultural, Conservation, and Rural. The Waiakea Radio facility project site is located in the Agricultural District classification.

On June 12, 2007, Act 171 was approved by the Governor to amend Section 205-4.5, Hawaii Revised Statutes which indentified permitted uses in the Agricultural District to include:

> *construction and operation of wireless communication antennas; provided that, for the purposes of this paragraph, "wireless communication antenna" means communications equipment that is either freestanding or placed upon or attached to an already existing structure and that transmits and receives electromagnetic radio signals used in the provision of all types of wireless communications services; provided further that nothing in this paragraph shall be construed to permit the*

construction of any new structure that is not deemed a permitted use under this subsection.'

However, under Hawaii County Code Chapter 25, a Use Permit approved by the County of Hawaii Planning Commission will be required for the Waiakea Radio Facility.

3.2.2 County of Hawaii General Plan

The County of Hawaii General Plan is a policy document for the long-range comprehensive development of the island of Hawaii and also provides the direction for future growth of the County. The current General Plan was adopted as Ordinance 05 25 on February 9, 2005 and amended December 2006. According to this General Plan, the project site is designated as University Use by the Land Use Pattern Allocation Guide.

A well-balanced land use pattern capable of meeting the future needs of the County is an essential part of the General Plan. The General Plan Land Use Pattern Allocation Guide (LUPAG) Maps indicate the general location of various land uses in relation to each other. On Figure 10, Map 9 in the General Plan, the area that includes the project site is designated University Use.

The Waiakea Radio Facility will be a public facility to be used by public agencies for public purposes. The goals, policies, standards and courses of action from "Public Facilities–Protective Services" Section 10 of the General Plan that are applicable to the Waiakea Radio Facility are set forth below. Further, as previously discussed, the Waiakea Radio Facility will include six 2-foot antennas which will be for exclusive use by the UH Hilo to permit extension of data networks from the main Hilo campus to as many as five off campus locations. Overall, the UH Hilo will have facilities at the Waiakea Radio Facility which will provide benefit to UH Hilo. Thus, Waiakea Radio Facility will be consistent with designation for University use.

10.1 OVERVIEW

10.1.2 Goal

(a) 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.

10.1.3 Policies:

(b) Coordinate with appropriate State agencies for the provision of public facilities to serve the needs of the community.

10.3 PROTECTIVE SERVICES

10.3.2 Policies:

(a) Development of police and fire facilities should entail joint use structures whenever feasible.

10.3.4.2 SOUTH HILO

10.3.4.7.2 Course of Action

(a) Expansion of service facilities should be considered in accordance with district needs.

The Waiakea Radio Facility will install a modern high capacity digital interconnect to replace the Rainbow analog radio channels used by the various public agencies. The backbone of the new digital system will have the capability to transmit 155 Mbit/s (megabits per second) which is equivalent to 2016 traditional voice channels or about 17 times the capacity of the Rainbow analog system. The conversion to a digital system is needed to handle the expanding voice and data communications requirements of the public safety community. The conversion to high capacity digital microwave was also forced both by the Federally-mandated reassignment of analog microwave frequencies to personal communications systems (cellular telephones) and public safety agencies' growing need for communications services to properly serve the public in the coming years. Thus, the Waiakea Radio Facility will be consistent with Public Facilities goals and policies and with the Protective Services policy and course of action in the General Plan.

The policies and standards from "Telecommunications" Section 11 of the General Plan that are applicable to the Waiakea facility are set forth below.

11.3.2 Policies:

(b) Work with the telecommunications industry to increase the availability of emergency telephones throughout the island.

Although the Waiakea Radio Facility will be a State-owned and operated rather than private facility, the telecommunications facility will significantly upgrade the infrastructure that supports local government emergency communications.

11.3.3 Standard:

(a) In the development and placement of telephone facilities, such as lines, telecommunications and cellular towers, poles, and substations, the design of the facilities shall consider the existing environment, and scenic view and vistas shall be considered and preserved where possible.

The selection of the Waiakea site for a new telecommunication facility has taken into consideration the scenic views and vistas of the in the South Hilo area. Based on the proximity to existing overhead utility poles to HELCO substation, the Waiakea facility tower will not have a significant adverse impact on scenic views. Public views of the facility will be confined to the upper portion of the new tower visible over the existing surrounding trees and vegetation which will remain.

3.2.3 County of Hawaii Zoning

The project site is zoned A-1a (Agricultural-1 acre minimum lot size). According to Chapter 25 (Zoning) of the Hawai'i County Code, Section 25-4-12, a telecommunication antenna or tower may be permitted in the RS, RD, RM, RCX, RA, FA, A, IA, and 0 districts if a use permit is obtained for such use. In addition, according to Section 25-2-71, plan approval shall be required in all applicable districts prior to the construction or establishment of telecommunication antennas and towers, as permitted under Section 25-4-12. Thus, the Waiakea Radio Facility will require a plan approval.

The Code includes requirements for proper setbacks or other forms of mitigation to avoid safety hazards and/or structural damage from falling trees and branches to adjacent parcels. For properties in the A-1a district, the front and rear yards are 30 feet and side yards 20 feet.

The site plan shows a 20-foot setback from the eastern boundary (USDA parcel) and a 5-foot setback from the southern boundary (DWS parcel). The 20-foot setback would meet the County code for setback from the property boundary. However, since the 5-foot setback is less than the required 20-foot setback, DAGS will need to apply to the County of Hawaii Planning Department for a setback variance to construct within the setback.

3.2.4 County of Hawaii Special Management Area

The Coastal Zone Management Act contains the general objectives and policies upon which all counties within the State have structured specific legislation which created Special Management Areas (SMA). Any development within the Special Management Area boundary requires a SMA Use Permit which is administered by the County of Hawaii.

The Waiakea Radio Facility project site is not located within the County's SMA.

4. ALTERNATIVES to the PROPOSED ACTION

4.1 No Action Alternative

Under the No Action alternative, resources in the form of financial capital, construction materials, fossil fuels, and human labor required for planning, engineering, construction, and operation/maintenance of the new facility would not be expended. The approximately 0.233 acre project site would remain in an undeveloped state.

Although the No Action alternative would use no resources, there are a number reasons to proceed with the proposed project. Without the proposed action, public safety radio users would be limited to the use of existing voice and data communication systems which have limited capabilities and a questionable amount of service lifetime remaining. Also, the various public agency users would have to rely on dated systems for transmitting data and voice communications. Although there would be no disturbance to the project site, use of the limited and dated systems would not be in the public interest, particularly when the Waiakea Radio Facility will serve public services agencies, including the County of Hawaii Police Department. These public agencies need an adequate and modern communication system to provide a high level of public service needed by the residents of the County of Hawaii. Based on these considerations, the No Action alternative is not considered a feasible alternative.

4.2 Other Sites

The Waiakea facility site requires microwave line-of-sight to provide an unobstructed path for signals between the existing radio facilities on Humuula on the southern slope of Mauna Kea, and the Hilo area. For any alternative site to be considered, it would have to support a microwave path that meets the line-of-sight and minimum path length criteria for a viable communications link.

While there may be other sites that meet this line-of-sight criteria, none of them would have the advantages of the selected site in terms of existing available infrastructure, and existing roadway access. The additional infrastructure requirements at an alternate site would increase the development costs significantly and would also have additional environmental consequences related to any new access road construction and utility installation, which might be required to construct operational site. Based on these considerations, the Waiakea Radio Facility project site is considered the optimum

location for a new facility, and the use of another site is not considered a feasible alternative.

4.3 Continued Use of Campus Center Facility

As previously discussed, DAGS currently has an existing communication facility at the UH Hilo Campus Center. This facility consists of a short structure with antennas mounted on the roof of the building and a small communication room used to house related radio equipment and batteries. Expansion of this facility was considered instead of construction of the Waiakea Radio Facility. However, there a number of drawbacks of continued use of the Campus Center. First, the antennas are about 50 feet about the surrounding grade and, as discussed, vegetation and trees obstruct the microwave line-of-sight between the Campus Center and the existing DAGS Humuula facility. These obstructions result in interruption to service, which during critical times, could prevent communication between public service agencies, including civil defense and emergency medical services. In addition, the relatively low height of the tower limits the area of land mobile radio coverage for the various users. Lastly, the communication room is fully occupied and cannot be expanded or relocated within the available spaces in the Campus Center building. Thus, continued use of the Campus Center Facility is not considered a feasible alternative.

4.4 Alternative Site Access Plan

This Final EA incorporates the Alternative Site Access Plan as the method of access to the Waiakea Radio Facility. The Alternative Site Access Plan has been selected as the project site access plan. It is no longer considered an alternative.

5. DETERMINATION

Short-term construction impacts include disruption to the project site and surrounding areas during construction, decline in air quality from construction activities, and increase in noise levels. Once construction has been completed, the short-term adverse impacts will no longer occur.

Based on analysis of the anticipated impacts, a Finding of No Significant Impact (FONSI) is determined for the Waiakea Radio Facility project. The significance criteria to make this determination are set forth below and in Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules.

1) *Involve an irrevocable commitment to loss or destruction of any natural or cultural resources*;

The Waiakea project site does not provide habitat for Federal or State of Hawaii listed or candidate threatened or endangered species of flora or fauna. The project site is vegetated with uluhe fern and some scattered ohia trees and exotic (introduced) plants, including strawberry guava, various grasses, and several scattered large albizia trees. Thus, the Waiakea Radio Facility project site will not result in the loss or destruction of natural resources. Based on the results of the previous archaeological field survey and approval by the Hawaii Island Burial Council, construction of the Waiakea facility should have no effect on historic properties.

Only one detailed interview was held with one party as part of the Cultural Impact Assessment. There were no substantive concerns about the project area per se. Based on these findings, the Waiakea Radio Facility project will have not adverse impacts to native Hawaiian cultural resources, beliefs, and practices.

2) *Curtail the range of beneficial uses of the environment*;

The Waiakea Radio Facility will use lands open lands which are unsuited for agriculture. The Waiakea facility will occupy an area of 10,154.4 SF (0.233 acres). The surrounding lands are occupied by various types of urban land uses or have been designated for

public utilities purposes. Thus, the Waiakea Radio Facility will not curtail the beneficial uses of the environment.

3) *Conflict with the State's long-term environmental policies or goals as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders*;

The Waiakea facility project will not involve actions or activities which would adversely affect natural resources in the area. The Waiakea facility will be consistent with the guidelines of Chapter 344, HRS, as it will provide a public facility to support the critical functions assigned to the State of Hawaii. As such, the Waiakea facility will not conflict with the State's long-term environmental policies or goals as expressed in Chapter 344, HRS.

4) *Substantially affect the economic or social welfare of the community or state*;

The Waiakea Radio Facility will be a public facility to be used by public agencies for public purposes, including for the County of Hawaii. The Waiakea Radio Facility is an integral part of the infrastructure needed to maintain the health and welfare of the community. The Waiakea facility will not have an adverse effect on the economic or social welfare of the community.

5) *Substantially affect public health*;

An efficient and well-maintained voice and data communication system is needed to protect the public health of residents and visitors on Hawaii. The Waiakea facility will serve as the facility for State and County of Hawaii agencies to conduct their mandated public functions. Thus, the Waiakea facility project will not have an adverse effect on public health.

The Waiakea facility is not expected to produce an EMR hazard to people or animals on the ground or in areas beyond the site fence line. Thus, the Waiakea Radio Facility project will not have an adverse effect on public health.

6) *Involve substantial secondary impacts, such as population changes or effects on public facilities*;

The Waiakea Radio Facility will be a public facility which will be used by the State of Hawaii to support its mission critical communication applications. No government or contractor personnel will be assigned to the daily operation of the Waiakea facility. Contract personnel will visit the project site to conduct tests and perform maintenance service on the air conditioning and power systems and to clean the building and surrounding area. The contractor personnel are expected to be residents from Hawaii. Thus, construction of the Waiakea facility will not create secondary impacts, such as population changes or effects on public facilities.

7) *Involve a substantial degradation of environmental quality*;

The Waiakea facility is anticipated to result in short-term impacts to noise, air quality and traffic in the immediate vicinity of the project site during the period of construction. However, these impacts will not be significant or can be mitigated by the construction contractor. The Waiakea Radio Facility project site does not contain Federal or State listed or candidate threatened or endangered species of flora or fauna. Further, based on the results of the archaeological field survey and approval by the Hawaii Island Burial Council, construction of the Waiakea facility should have no effect on historic properties.

Only one detailed interview was held with one party as part of the Cultural Impact Assessment. There were no substantive concerns about the project area per se. Based on these findings, the Waiakea Radio Facility project will have no adverse impacts to native Hawaiian cultural resources, beliefs, and practices.

8) *Have a cumulative effect upon the environment or involves a commitment for larger actions*;

The Waiakea facility does not involve a commitment to further actions to other State of Hawaii related projects on Hawaii. As a result, the Waiakea facility will not have a cumulative effect upon the environment or involve a commitment by the State to larger actions on Hawaii.

9) *Affect a rare, threatened or endangered species;*

The Waiakea Radio Facility project site does not contain Federal or State listed or candidate threatened or endangered species of flora or fauna. However, as recommended by the US Fish and Wildlife Service, no vegetation removal of trees greater than 15 feet will be conducted during the Hawaiian hoary bat birthing season and surveys will be conducted to determine if Hawaiian hawks are on the project site. Lastly, no night-time construction will be allowed so as not to attract seabirds. These mitigation measures will protect these species.

10) *Detrimentally affect air or water quality or ambient noise levels*;

Operation of construction equipment would increase noise and exhaust emission levels in the immediate vicinity of the Waiakea facility project site. Once operational, the Waiakea Radio Facility will contribute almost no additional noise or air emissions to the local area. There are no groundwater or surface water resources on or near the project site that will be affected by the construction and operation of the facility.

11) *Affects or likely to suffer damage by being located in an environmentally sensitive area such as a floodplain, tsunami zone, beach, erosion-prone area, geographically hazardous land, estuary, fresh water or coastal water*;

On December 22, 2011, as part of the Pre-Assessment for this Draft EA, the State of Hawaii Department of Land and Natural Resource Engineering Division confirmed the project site is located in Flood Zone X. Further, the Flood Insurance Program does not have any regulations for developments within Flood Zone X. Thus, the Waiakea facility is not located in an area subject to flood hazards, a hazardous floodplain or a tsunami zone. Based on the geotechnical investigation, the project site does not appear to be located in the immediate proximity of mapped geologic fault structures. The Waiakea Radio Facility project site is also not within the County of Hawaii Special Management Area. In addition, the Waiakea facility project site is not within the coastal shoreline area. Thus, the Waiakea facility project site is not located in an environmentally sensitive area.

12) *Substantially affect scenic vistas and viewplanes identified in county or state plans or studies*;

The County of Hawaii General Plan, in the section on Natural Beauty, notes that the natural beauty of the South Hilo District is dominated by Mauna Kea and Mauna Loa. From various locations in South Hilo, there are magnificent views of these mountains. The Natural Beauty section also provides a list of natural beauty sites in South Hilo with a number of sites in Waiakea. This listing by TMK shows most of the sites are located along the Hilo Bay shoreline. None of the sites are located in the vicinity of the project site TMK: 2-4-001:170.

The Waiakea Radio Facility will be located in an area adjacent to the existing HELCO utility poles and overhead lines, and the nearby existing trees which will remain. Public views of the facility will be confined to glimpses of the upper portion of the new tower at gaps in the tress when traveling along Komohana Street. The 75-foot tower will be only slightly higher than the existing adjacent trees and 70-foot high utility poles. The tower will not be a single new above ground structure in the area and will not have a significant adverse impact on the scenic views of the slopes of Mauna Kea or Mauna Loa.

13) *Require substantial energy consumption.*

The Waiakea facility is a public facility to be used by public agencies for public purposes. It is a new facility which will be planned and designed to minimize use of electrical power. Thus the Waiakea facility project will not create a substantial increase in energy consumption.

Based on Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Statement Rules, Subchapter 6, Section 11-200-9 (4), construction and operation of the Waiakea facility does not warrant the preparation of an environmental impact statement preparation notice. Further, based on the findings and the assessment of potential impacts from the Waiakea Radio Facility project, a Finding of No Significant Impact (FONSI) is determined.

6. LIST OF PERMITS and APPROVALS

Department of Land and Natural Resources and UH at Hilo

- Executive Order for Land Transfer

County of Hawaii

- Use Permit
- Setback Variance
- Building Permit
- Grading Permit

7. CONSULTED PARTIES

7.1 Pre-Assessment Consultation

The following agencies were consulted during the pre-assessment phase of the Draft Environmental Assessment. Each agency was sent a copy of a project summary and a request for their written comments on the project. Those who formally replied are indicated with a ✓. All written comments and responses are reproduced in Appendix B.

Federal Agencies

✓ US Army Corps of Engineers
US Department of Agriculture Pacific Basin Agricultural Research Center
✓ US Fish and Wildlife Service
US Geological Survey
US Coast Guard

State Agencies

State of Hawaii Department of Business Economic Development & Tourism
State of Hawaii Department of Defense
State of Hawaii Department of Land and Natural Resources
✓ Engineering Division
✓ Land Division
State of Hawaii Department of Land and Natural Resources/Historic Preservation Division
✓ State of Hawaii Department of Hawaiian Home Lands
State of Hawaii Department of Health
✓ State of Hawaii Department of Health Environmental Planning Office
✓ State of Hawaii Department of Transportation
✓ Office of Hawaiian Affairs
✓ University of Hawaii Hilo

County Agencies

County of Hawaii Civil Defense
✓ County of Hawaii Department of Environmental Management
County of Hawaii Fire Department
County of Hawaii Department of Parks and Recreation
✓ County of Hawaii Planning Department

✓ County of Hawaii Police Department
County of Hawaii Department of Public Works
✓ County of Hawaii Department of Water Supply

Elected Officials
Senator Dwight Takamine
Representative Jerry Chang
Councilmember Donald Ikeda

Others
Hawaiian Electrical Light Company
Hawaiian Telcom
Oceanic Time Warner Cable

7.2 Agencies and Organizations Consulted on the Draft EA

The following is a list of agencies and organizations that were consulted during the preparation of the Draft Environmental Assessment. Those who formally replied are indicated with a ▲. All written comments and responses are reproduced in Appendix F.

Federal Agencies
Department of the Army, US Army Engineer District, Honolulu
US Department of Agriculture Pacific Basic Agriculture Research Center
US Department of the Interior of the Fish and Wildlife Service
US Department of the Interior Geological Survey
US Department of Transportation Federal Aviation Administration
US Coast Guard

State Agencies
Department of Agriculture
Department of Business, Economic Development and Tourism
DBED&T - State Energy Office
Department of Defense
Department of Hawaiian Home Lands
Department of Health
▲ Department of Health - Environmental Management Division

- Department of Labor and Industrial Relations
- Department of Land and Natural Resources Engineering Division
- Department of Land and Natural Resources Land Division

Department of Land and Natural Resources Historic Preservation Division

- Department of Transportation

Office of Hawaiian Affairs

- University of Hawaii Hilo

University of Hawaii Water Resources Research Center

University of Hawaii Environmental Center

Hilo Regional Library

County of Hawaii Agencies

County of Hawaii Civil Defense

- County of Hawaii Department of Environmental Management
- County of Fire Department

County of Hawaii Department of Parks and Recreation

- County of Hawaii Planning Department
- County of Hawaii Police Department

County of Hawaii Department of Public Works

County of Hawaii Department of Water Supply

Officials

- Dwight Takamine

Representative Jerry Chang

Councilman Donald Ikeda

Public Utilities

Hawaii Electric Light Company

Hawaiian Telcom

Oceanic Time Warner Cable

8. REFERENCES

County of Hawaii Planning Department. *County of Hawaii General Plan*. February 2005.

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County of Hawaii Fire Department. *Special Permit Application Fire Administration Support Complex*. June 2009

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Office of the Governor Office of State Planning. *The Hawaii State Plan Chapter 226, Hawaii Revised Statutes*. !988.

Title 11 Hawaii Administrative Rules State of Hawaii Department of Health Chapter 46 Community Noise Control. September 23, 1996.

State of Hawaii Department of Health. *Annual Summary + 2008 Air Quality Data*. 2008.

US Department of Agriculture Soil Conservation Service. *Soil Survey of Island of Hawaii, State of Hawaii*. December 1973.

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State of Hawaii Department of Accounting and General Services. *Final Environmental Assessment Information & Communication Services Division Kaupulehu Radio Site and Tower, Kaupulehu, North Kona, Hawaii.* June 2009.

State of Hawaii Department of Accounting and General Services. Special Permit Application: Telecommunication Towers *Kaupulehu Radio Site and Tower, Kaupulehu, North Kona, Hawaii.* July 2009.

State of Hawaii Department of Accounting and General Services. *Final Environmental Assessment Anuenue (formerly Rainbow) Radio Facilities and Towers Statewide Kahua Ranch Site, North Kohala District Island of Hawaii.* January 2004.

State of Hawaii Department of Accounting and General Services. *Special Permit Application Anuenue (formerly Rainbow) Radio Facilities and Towers Statewide Kahua Ranch Site, North Kohala District Island of Hawaii.* January 2004.

APPENDIX A

BURIAL NOTICE

Waiākea Ahupua'a

NOTICE TO INTERESTED PARTIES IS HEREBY GIVEN that a historic property (SIHP # 50-10-35-22080) containing a single human femur bone understood as a probable burial was discovered by Cultural Surveys Hawai'i, Inc. in a lava sink feature during the course of an archaeological inventory survey related to the proposed development of undeveloped land west of Komohana St. and north of Puainako St. within the *ahupua'a* of Waiākea, District of South Hilo, Island of Hawai'i TMK: [3] 2-4-001:170.

The project proponent is the State of Hawai'i Department of Accounting and General Services contact: Ernst Lau, Public Works Administrator, 1151 Punchbowl Street, P.O. Box 119, Honolulu, Hawai'i 96810; phone: 808-586-0476.

Background research indicates that during the *Māhele* these lands (along with the rest of the *ahupua'a* of Waiākea) were awarded to Victoria Kamāmalu (LCA 7713:16). No *kuleana* (*maka'āinana* Land Commission Awards) are known in the immediate vicinity.

Following the procedures of Hawai'i Revised Statutes (HRS) Chapter 6E-43, and Hawai'i Administrative Rules (HAR) Chapter 13-300, the probable burial is believed to be over 50 years old. The project proponent would prefer to preserve the probable burial in place; however, the decision to preserve in place or relocate these previously identified probable burials shall be made by the Hawai'i Island Burial Council and SHPD in consultation with any recognized lineal and/or cultural descendants, per the requirements of HAR Chapter 13-300-33. The probable burial's proper treatment shall occur in accordance with HAR Chapter 13-300-38 or 13-300-39.

SHPD is requesting persons having any knowledge of the identity or history of this probable burial to immediately contact Mr. Analu Josephides at SHPD, located at P.O. Box 2972, Kailua-Kona, Hawai'i 96745, phone: (808) 327-4959 or fax (808) 933-7655, to provide information regarding appropriate treatment. All interested parties should respond within thirty days of this notice and file descendancy claim forms and/or provide information to SHPD adequately demonstrating lineal descent from this specific probable burial or cultural descent from ancestors buried in the vicinity of this survey area.

7739.30
8/23/11
cc: DAGS
CSH/em

Legal Notices 020

NOTICE TO INTERESTED PARTIES IS HEREBY GIVEN that a historic property (SIHP # 50-10-35-22080) containing a single human femur bone understood as a probable burial was discovered by Cultural Surveys Hawai'i, Inc. in a lava sink feature during the course of an archaeological inventory survey related to the proposed development of undeveloped land west of Komohana St. and north of Puainako St. within the *ahupua'a* of Waiākea, District of South Hilo, Island of Hawai'i TMK: [3] 2-4-001:170.

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SHPD is requesting persons having any knowledge of the identity or history of this probable burial to immediately contact SHPD, located at 40 Po'okela St., Hilo HI 96720, (TEL (808) 933-7650 / FAX (808) 933-7655) or SHPD O'ahu located at Kakuhihewa Building, 601 Kamokila Blvd, Kapolei HI 96706 (TEL (808) 692-8015 / FAX (808) 692-8020) to provide information regarding appropriate treatment. All interested parties should respond within thirty days of this notice and file descendancy claim forms and/or provide information to SHPD adequately demonstrating lineal descent from this specific probable burial or cultural descent from ancestors buried in the vicinity of this survey area.

(36099r1 Hawaii Tribune-Herald: August 20, 21, 24, 2011)

Garage Sales 230

Community Garage Sale- Aug. 27, 7:00am- 3:00pm, in Borthwick parking lot, 570 Kinoole Street. Live music, food vendors, face

Garage Sales 230

★New Today★
Need cash for college
Sat. 7am-11am. LV Gucci bag, bike, mower, sofa/

Antiques 240

ANTIQUES BY...
Huge Storewide Sale!
35% off! August 16-21.
Don't Miss It!

(7135-30)
8/24/11
cc: DAGS
CSH
em

Restaurant-Food Service

Executive / Sous Chef. Casual dining restaurant in Waikiki seeks a FT Executive Chef / Sous Chef.

Star Advertiser

Legal

Public Notice | Public Notice | Public Notice

NOTICE TO INTERESTED PARTIES IS HEREBY GIVEN that a historic property (SIHP # 50-10-35-22080) containing a single human femur bone understood as a probable burial was discovered by Cultural Surveys Hawai'i, Inc. in a lava tink feature during the course of an archaeological inventory survey related to the proposed development of undeveloped land west of Komohana St. and north of Puainako St. within the ahupua'a of Waiakea, District of South Hilo, Island of Hawai'i TMK: [3] 2-4-001:170.

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(SA338685 8/17, 8/20, 8/21/11)

Notices of Availability | Notices of Availability | Notices of Availability

NOTICE OF AVAILABILITY
FINAL ENVIRONMENTAL ASSESSMENT (EA) AND
FINDING OF NO SIGNIFICANT IMPACT (FONSI)
FOR THE DISPOSAL AND REUSE OF SURPLUS PROPERTY AT NAVAL AIR
STATION BARBERS POINT, OAHU, HAWAII

SUMMARY: Pursuant to the Council on Environmental Quality (CEQ) regulations (40 Code of Federal Regulations [CFR] 6 1500 1508) implementing procedural

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...LOPMENT AND HARDWARE
...RATION SERVICES

...ration of the University of Hawaii ... of the Advanced Technology

...poles, Temporary, Intermittent)
...G COURT REPORTER II
...NTINUOUS RECRUITMENTS
...K III ($2,283/Mo.) - Isle of Hi, Kona
...JUSTICE CENTER PROGRAM
...Island of Hawai'i, Kona
...ERK I, II, III - Isle of Hawai'i, Kona
...), II ($2,378/Mo.), III ($2,597/Mo.)
...K I, II - Kaua'i
...KER II - Kaua'i
...KER V - Maui
...call 539-4949, 800-493-8298, ...7719(TTY). EEO/AA Employer

HIBC Minutes
September 22, 2011
Page | 5

family has traditionally used lava tubes for burials, and believes more burials exist. However, he does not know where they are. He noted that his aunts Aurora and Lehua have provided input in the past, but they insisted that the younger generation attend this meeting.

Ange Merola noted that the family pays taxes on a lot makai of this one, and that they also have a claim to this land.

Unger asked what the relationship of the family is with the owners. Kaawa responded that he has no relationship with them. Some members of the family did a walk through with one of the owners. His aunty Lehua has more information.

Burial council members discussed doing a site visit where owners, family members, archaeologist and HIBC are all there so that outstanding issues can be addressed on site.

Leslie/Miranda moved for HIBC to do a site visit to TMK (3) 8-7-010:009, Kukuiopae Ahupuaa, South Kona District, Island of Hawaii. Charlie Young will work on a date and getting Puka'ana church for the HIBC meeting afterwards. He will ensure the agenda is small. Vote: Unanimous in support.

Chuck Flaherty said he is friends with some of the neighbors and there was a contested case against the subdivision. On July 22 there was tentative subdivision approval. He provided the council with the minutes of February 2008, April 17, 2008, and July 17, 2008 when this project was on the agenda. He also provided copies of Hawaii County Real Property records regarding the owner of the property that ultimately traces ownership to Shea Holdings, LLC, which has no standing according to the site. **Mr. Young asked SHPD staff to follow up with the AG on what this means and if the BTP should be agendized if there is an on-going contested case.**

Leslie/Elarionoff: Move to defer decision making on A Burial Treatment Plan for a property located at TMK (3) 8-7-010:009 in Kukuiopae Ahupuaa, South Kona District, Island of Hawaii. Revised August 2011. Unanimous in support.

The council clarified that Liebhardt needs to 1) set up the site visit (work with Mr. Young) and 2) check if anything in the report needs to change. They also noted that Charlie is waiting for comments from the descendants.

II. D. Burial Treatment Plan for a Single Human Femur Bone, SIHP #50-10-35-22080, Waiakea Ahupuaa, District of South Hilo, Island of Hawaii. TMK (3) 2-4-001:170. Information, Discussion, Recommendation, Decision.

Dave Shideler provided a synopsis of the burials treatment plan. Archaeological inventory for this property was originally carried out in 2000, for the USDA Pacific Basin Agricultural Research Center. A single femur was found in a burial cave. When the iwi was found, the Research Center was moved. In addition the portion of the property with the iwi was carved out into a separate TMK parcel and passive preservation was agreed to. At this time DAGS would like to build a radio tower on the property. They proposed passive preservation in place with 50 foot buffers. Access for cultural or lineal descendants would be on an ad-hoc basis by the landowner.

Leslie noted that the maps were so small as to be unreadable and requested larger maps.

Young noted that the burial was found 11 years ago, why a BTP now? Shideler responded that it is because DAGS would like to use a part of the property.

Public Testimony

Puna Lerma who responded to ads regarding this burial, is the only potential descendant at this time. He provided the HIBC with a history of Hawaiians using the bible, genetics and the dictionary to establish Hawaiian rights to the land. However, because of a loss of quorum, he was unable to finish. Unclear whether he supports or opposes the BTP. He requested reimbursement of travel costs.

Leslie/Kahaulelio moved to defer decision-making on a burial treatment plan for SIHP #50-10-35-22080, a Burial Cave, Waiakea, South Hilo, Hawaii Island. TMK (3) 2-4-001:170. Unanimous in support.

III. Inadvertent Updates

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

(T739-30)

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

GUY H. KAULUKUKUI
FIRST DEPUTY

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 RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

2/2/12

cc: DAGS) em

HAWAII ISLAND BURIAL COUNCIL
MEETING MINUTES
October 20, 2011

Call to Order: 9:20 am
Members and SHPD Staff Present:

HIBC	SHPD	Public	
Kimo Lee	Pua Aiu	Ruby McDonald	CurtisTyler
Charlie Young	Michael Vitousek	Alan Haun	Byron Moku
Ku Kahakalau		David Shideler	Charles Flaherty
Leningrad Elarianoff	**AG**	Daniel Jandoc	Bob Rechtman
Gene "Bucky" Leslie	Cindy Young	John Sakaguchi	Joseph Kennedy
Edward Miranda		Clarence Perez	
Keith Unger		Gale Perez	
Maxine Kahaulelio (arrived at 10:20)		Phil Gallinger	
		Clara Gallinger	
Excused: Pele Hanoa		April Quina	
Duchy Saffrey		Samuel Gallinger	

Approval of Minutes: Elarianoff provided some corrections to typos. Theresa Donham submitted an addendum to the minutes. **Minutes were accepted as corrected, with addendum from Theresa Donham. (Elarianoff/Young)**

New Business: None

Old Business:

A. **Burial Treatment Plan for a Single Human Femur Bone, SIHP #50-10-35-22080, Waiakea Ahupuaʻa, District of South Hilo, Island of Hawaii. TMK: (3) 2-4-001:170.**

David Shideler presented an over-view of the Burial Treatment Plan, included an addendum that he presented showing that DAGS had modified the proposed buffers so that in most places there is at least an 80 foot buffer (rather than 50 feet as originally proposed). The entire preservation site would be 1.2 acres.

Elarianoff: Expressed concern that it would be best if the single bone could be joined with the rest of its body. Asked if archaeologist had any idea where the bone came from.

Shideler: Responded that Cultural Surveys Hawaii (CSH) did not know where the bone came from, but that the bone is very old, and based on age and indications that it seemed to have been in the same place in the cave for a very long time, they determined it is Hawaiian.

Unger asked if the short and long-term measures are the same?

Shildeler responded that some long-term options are to put up a chain-link fence and/or to seal the cave.

Kahakalau thanked Mr. Shidler and asked if there are lineal or cultural descendants. She also noted that she would like more detail about access since it seemed to be on an ad-hoc basis.

Shideler responded that he did not believe there are recognized lineal or cultural descendants although he heard that Mr. Lerma had filed his paperwork. He also said that he will verify the language regarding access. The Present plan does not impede access and may make it easier. The fence would be open at both ends.

Aiu confirmed that Lerma had filed his paperwork but had not been recognized yet.

Miranda noted that he had visited the site which had a lot of outcrops. Although he had no problem with the tower he felt something needed to be done to limit access. He is also concerned about equipment in the area and would like to hear from the descendant(s).

Elarianoff though sealing the cave is an excellent idea.

Aiu asked if the chain-link fence would be put up prior to or after construction. **Shideler** responded that it would be put up after construction and orange construction fencing would be used during construction.

Leslie asked if there is a monitoring plan. **Shideler** said there was no monitoring plan because the area had been surveyed and this was the only find.

Young noted that he had some concerns:

1) Why did DAGS have a preferred option to preserve in place
2) Lack of consultation with Lerma

Shideler noted that he advised DAGS to preserve in place.

Motion: Accept applicant recommendation to preserve in place. Defer discussion on access and buffers until Mr. Lerma has been consulted. (Young/Leslie)

AG verified that a majority of the people present constitutes a majority for voting.

Motion passed 5 ayes (Kahakalau, Kahaulelio, Miranda, Unger, Young) and 2 nays (Lee, Elarianoff)

Kahakalau verified that CSH will contact Lerma and provide an update for HIBC to approve.

Kahakalau noted that there should be meetings in Hilo for the people on that side. Mr. Lee noted that Mr. Lerma could send in written testimony.

~~**B. A Burial Treatment Plan for a Property Located at TMK (3) 3-5-001:108, Puakea Ahupua'a:**~~

Mr. Bob Rechtman presented the revised burial treatment plan. He noted that he had changed some of the initial discussion on population and timelines to eliminate confusion. He also took Ms. Kahakalau's comments to heart and revised the background section to encompass other opinions about the history of Hawaii

He also called all of the descendants (Lui, Perez and Kaleikini) and discussed **sealing the cave, access, buffers, preserve in place and parking**. All but the Perez's were fine with the plan. He noted that the **improvements from the edge of the conservation zone to the feature** were dropped because it would affect a preserve site and is in conservation district land and therefore improvements would require a permit.

There was no site visit as the burial council had requested because only the Perez family wanted an additional site visit, but they wanted to meet with the owners, who were not available.

It is now noted in the treatment plan that vegetation will be removed by hand. The descendants did not provide additional language.

The owners are still requesting:
a) Preserve in place
b) 48 hour notice for daylight access
Mr. Rechtman also noted that 24 hour access is available from the shoreline.

Leslie expressed concern about the 48 hour notice and descendents ability to get into the gated subdivision as this has been a problem with other gated communities. He noted that he does not like gated communities. **Kahakalau** followed up by asking how descendants access the site if the landowners are away, as they are now? **Rechtman** noted that they will provide a number that will have a person who can arrange access whether or not they are in town. Furthermore, they intend to make this their permanent residence.

Kahakalau noted that people cannot take rocks, rock fragments or glass.

Miranda asked if the revised BTP had been give to the descendants. **Rechtman** said it hadn't because the level of change was minor and all changes had been agreed to or discussed by all the descendant families (2 of the 3 families agreed to the plan). He did not want to kill more trees. **Miranda** noted that the descendants should have the latest copy of the BTP so that they are fully informed. **He requested that Rechtman provide the descendants the changes.**

Kahaulelio asked if the owners were aware that there would be problems and they may be fighting against Hawaiians? She also noted that they had asked for no gates at the last meeting.

Rechtman and Lee noted that the landowner was aware there were burials on the property. **Rechtman** pointed out that this area has been gated for a long time, to which **Kahaulelio** responded that she thought the gate should come down.

Attachment 2
HIBC 10/22/11

CULTURAL SURVEYS HAWAI'I

ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL DOCUMENTATION SERVICES - SINCE 1982

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Fax: (808) 244-1994

Branch Offices:
Hilo, Hawai'i
Kona, Hawai'i
Lāwai, Kaua'i

October 14, 2011

Leningrad Elanionoff
Hawai'i Island Burial Council member
P.O. Box 1737 Kamuela HI 96743

Subject: Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170

Aloha Hawai'i Island Burial Council member:

Mahalo for your consideration of our draft Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave, Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170 at the September HIBC meeting. We look forward to addressing the matter again this Thursday, October 20th.

We are attempting to provide a proper buffer zone for the collapsed lava tube containing the *iwi* (one human femur bone) and still allow for the construction of a Department of Accounting and General Services Information and Communications Services Division Waiakea Radio Site and Tower project and an Access Driveway. Attached please find a Figure (Figure 1) showing the presently proposed 1.2 acre preserve for the *iwi*.

The proposed 1.2 acre preserve for this *iwi* would be 100 or more feet in radius most of the way around the site (289° of arc). The proposed preserve would be 80 feet or more in radius on the southeast side. The proposed tower project would be more than 100 feet away from the *iwi*.

For your consideration, if the HIBC was amenable to the proposed burial preserve, DAGS would be willing to do two things to provide additional protection to the iwi (if the HIBC deemed one or both of these actions appropriate):

- If appropriate, DAGS would see to the construction of a protective chain-link fence along the *makai* side of the proposed burial preserve (along the *mauka* side of the proposed Waiakea Radio Site access road) (see attached Figure 1). The purpose of this fence would be to decrease the chance of any inadvertent disturbance. The fence could be free-standing and open at the ends so as not to impede access of any appropriate parties if desired.
- If appropriate, DAGS would see to the sealing off of the low overhang in which the *iwi* lies. This would involve the construction of a low rock wall of locally available stone across the opening to the ledge (please see Figure 2). Such a protective wall could be: A) dry-stacked, or B) be constructed using mortar, or C) be constructed using mortar and re-inforcing steel re-bar – as the HIBC might see fit

Mahalo for your continuing resolution of this matter. Aloha.

David W. Shideler, Cultural Surveys Hawai'i

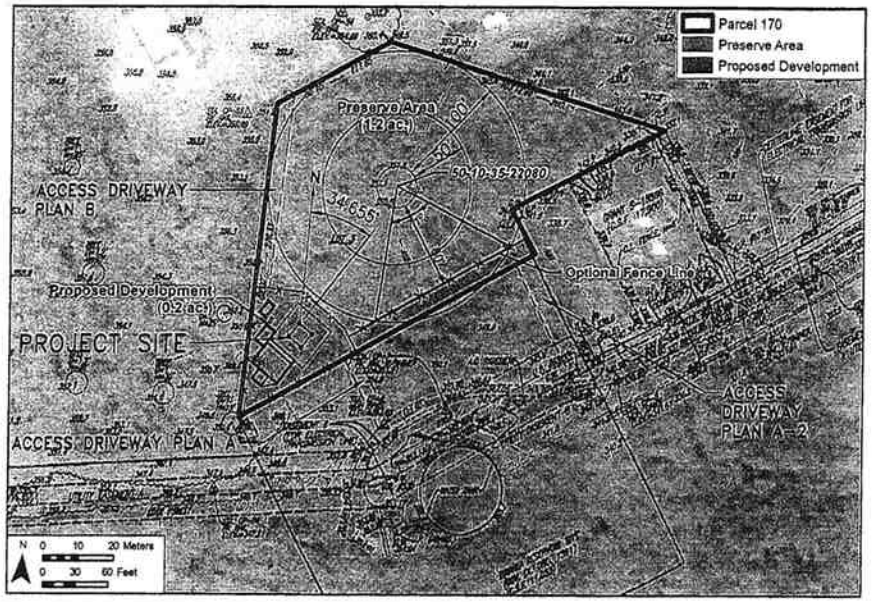

Figure 1. Proposed SIHP # 50-10-35-22080 burial preserve

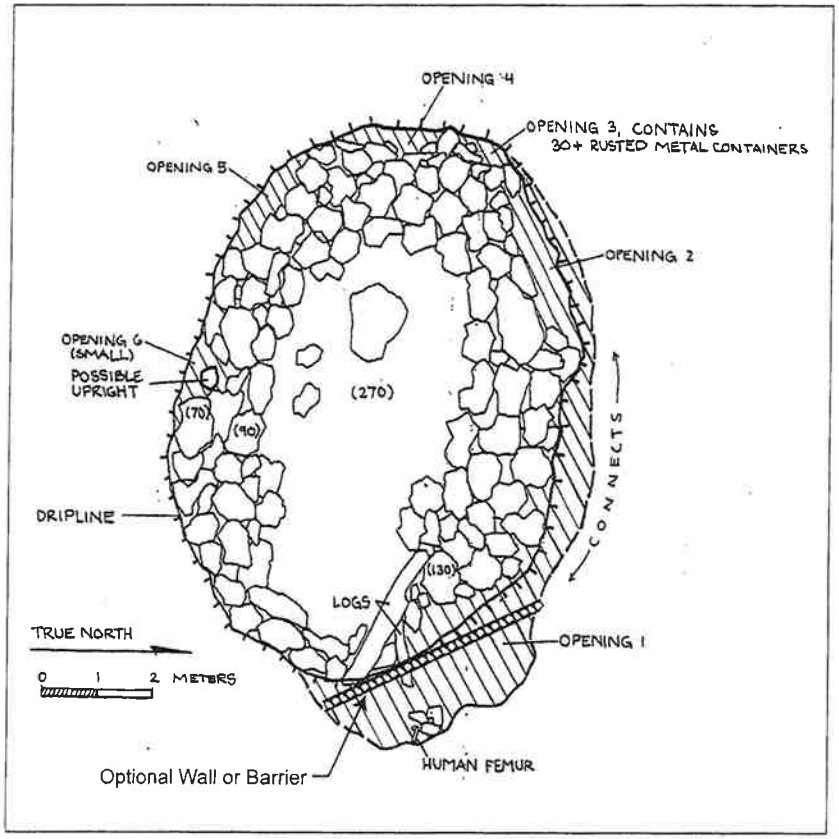

Figure 2. Optional wall or burial for the SIHP # 50-10-35-22080 burial preserve

CULTURAL SURVEYS HAWAI'I

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Kona, Hawai'i
Lāwai, Kaua'i

November 8, 2011

Mr. Puna Lerma
C/O P.O.Box 488,
Pāpa'ikou, HI 96781.
Tel. 381-2959

Subject: Consultation Regarding a Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170

Aloha Mr. Puna Lerma:

Mahalo for your consideration of our draft Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave, Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170 at the September HIBC meeting. We presented the matter again at the Thursday, October 20th. HIBC meeting, the council members present voted 6 to 2 in favor to approve preservation in place, however, they and the SHPD asked that we seek your *mana'o* regarding appropriate treatment of this Waiākea *iwi kupuna*.

We seek your *mana'o* on four related matters: 1) the buffer zone, 2) a possible protective fence separating the burial preserve from a proposed driveway on the *makai* side, 3) sealing off of the cave, 4) ensuring access for cultural descendants.

1) **Buffer Zone**

We propose to provide a proper buffer zone for the collapsed lava tube containing the *iwi* (one human femur bone) and still allow for the construction of a Department of Accounting and General Services (DAGS) Information and Communications Services Division Waiakea Radio Site and Tower project and an Access Driveway. Attached please find a Figure (Figure 1) showing the presently proposed 1.2 acre preserve for the *iwi*.

The proposed 1.2 acre preserve for this *iwi* would be 100 or more feet in radius most of the way around the site (289° of arc). The proposed preserve would be 80 feet or more in radius on the southeast side. The proposed tower project would be more than 100 feet away from the *iwi*.

We seek your in-put on whether you believe the proposed buffer zone is acceptable.

2) **A Protective Fence on the *Makai* Side of the Buffer Zone ?**

If appropriate, DAGS would see to the construction of a protective chain-link fence along the *makai* side of the proposed burial preserve (along the *mauka* side of the proposed Waiakea Radio Site access road) (see attached Figure 1). The purpose of this fence would be to decrease the chance of any inadvertent disturbance by machinery or pedestrians to the *iwi*. The fence would be free-standing and could be open at one or both of the ends (on the southwest side where it connects to the proposed development fence or on the east side where the proposed driveway would turn to the south) so as not to impede access of any appropriate parties if desired.

We seek your in-put on whether you would favor such a fence–and if so whether you would prefer any openings.

3) **Sealing Off of the Cave ?**

If appropriate, DAGS would see to the sealing off of the low overhang in which the *iwi* lies. This would involve the construction of a low rock wall of locally available stone across the opening to the ledge (please see Figure 2). Such a protective wall could be: A) dry-stacked, or B) be constructed using mortar, or C) be constructed using mortar and re-inforcing steel re-bar.

We seek your in-put on whether you would favor such sealing off of the ledge containing the *iwi*, and, if so, if you would prefer that such a protective wall could be: A) dry-stacked with locally available stone, or B) be constructed using mortar and locally available stone, or C) be constructed using mortar and re-inforcing steel re-bar and locally available stone.

4) **Access to this *iwi kupuna* for Cultural Descendants?**

Perhaps the simplest way to ensure access to this *iwi kupuna* for any recognized lineal descendants would be for DAGS to provide a contact person and telephone # and request that the descendants be so kind as to let them know so that arrangements can be made to access the *iwi kupuna*.

Do you have any particular concerns for access to this *iwi kupuna* for you and your family? Would the proposed telephone notification to DAGS be acceptable?

We would like to be able to present your views to the Hawai'i Island Burial Council by their November meeting. Thus we seek your response at your earliest convenience–in the next week if possible.

Mahalo for your continuing involvement in gaining resolution of this matter.

Aloha.

David W. Shideler,
Cultural Surveys Hawai'i

cc. Mr. Kimo Lee, Hawai'i Island Burial Council Chair
Dr. Pua Aiu, State Historic Preservation Division
Mr. Daniel Jandoc, DAGS

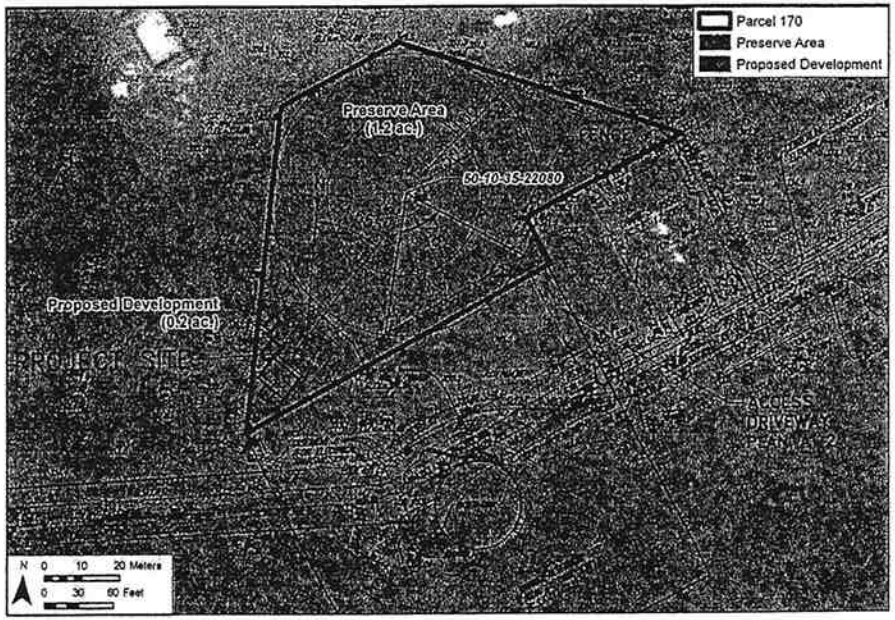

Figure 1. Proposed SIHP # 50-10-35-22080 burial preserve

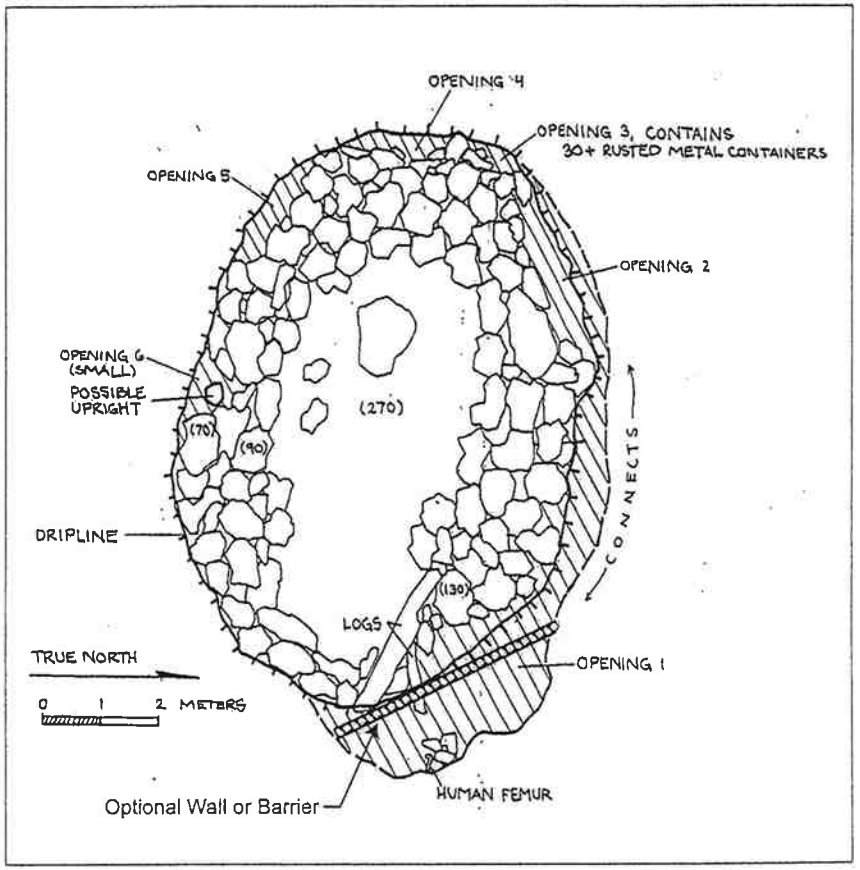

Figure 2. Optional wall or burial for the SIHP # 50-10-35-22080 burial preserve

John Sakaguchi

From: David Shideler [dshideler@culturalsurveys.com]
Sent: Thursday, November 24, 2011 9:35 AM
To: 'Auli'i Mitchell'; John Sakaguchi
Subject: RE: DAGS Waiakea Burial Treatment Plan (CSH WAIAKEA 6) wrapping up consultation with PUNAHELE LERMA
Categories: Filed by Newforma

Aloha Auli'i Mitchell:

Mahalo for your efforts to get straight answers from Mr. Lerma. The SHPD spells his family name: "Lerma". If you have reason to believe the proper spelling is "Lurma" please advise.

We had hoped for straight answers from Mr. Lerma to 4 questions. Cultural Surveys has now made more than a good faith effort to elicit his desires. It is good that I had a chance to hear him myself at the October HIBC meeting so that I understand at least some of the difficulties of conducting an interview with him. Please review the following synopsis and correct as appropriate:

1) We seek your in-put on whether you believe the proposed buffer zone is acceptable.

   Mr. Lerma had no objections.

2) We seek your in-put on whether you would favor such a fence – and if so whether you would prefer any openings.

   Mr. Lerma asserted words to the effect that: "I will agree that the proposed fence around the *iwi kupuna* be okay temporarily." This answer does not appear to directly relate to the question regarding a permanent fence on the *makai* side - with or without openings.

3) We seek your in-put on whether you would favor such sealing off of the ledge containing the *iwi*, and, if so, if you would prefer that such a protective wall could be: A) dry-stacked with locally available stone, or B) be constructed using mortar and locally available stone, or C) be constructed using mortar and re-inforcing steel re-bar and locally available stone.

   Mr. Lerma had no comment.

4) Do you have any particular concerns for access to this *iwi kupuna* for you and your family? Would the proposed telephone notification to DAGS be acceptable?

5) Mr. Lerma had no comment.

My present understanding is that Mr. Lerma has not filed any paperwork with the SHPD to be recognized as a cultural descendant of this Waiakea *iwi* (hence he has no formal status) and I am highly inclined to wrap up this consultation in a revised Burial Treatment Plan for SHPD review.

I am inclined to recommend: 1) the presently proposed buffer zone supplied to the HIBC and Mr. Lerma, 2) a chainlink fence contiguous on the *mauka* side of the access driveway with the facility enclosure fence but just ending along the *mauka* side of the access driveway on the NE end at a point 100 feet from the burial, 3) no sealing off of the ledge, 4) no special access arrangements for anyone at this time.

Auli'i please let me know if you see any problems with this approach.

SHPD can let us know if they want something different.

Mahalo.

David Shideler
Cultural Surveys Hawai'i
PO Box 1114

Kailua, HI 96734
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Fax: (808) 262-4950
dshideler@culturalsurveys.com

From: Auli'i Mitchell [mailto:amitchell@culturalsurveys.com]
Sent: Wednesday, November 23, 2011 12:20 PM
To: 'David Shideler'
Subject: WAIAKEA 6 PUNAHELE LURMA

Aloha e Kawika,

I have attached the notes from our meeting yesterday please review.

Mahalo,

Aulii Mitchell
Director Hawai`i Office
Cultural Surveys Hawai`i Inc.
15-3011 Mako Way
Pahoa, HI. 96778
Phone: 1-866-965-6478
Fax: 808-965-6582

7739-30

File

Revised Draft
Burial Treatment Plan for
SIHP # 50-10-35-22080, a Burial Cave
Waiākea, South Hilo, Hawai'i Island
TMK: [3] 2-4-001:170

Prepared for

Wilson Okamoto Corporation

Prepared by

Hallett H. Hammatt, Ph.D.

And

David W. Shideler, M.A.

Cultural Surveys Hawai'i, Inc.

Kailua, Hawai'i

(Job Code: WAIAKEA 6)

September (Revised November) 2011

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Management Summary

Reference	Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170 (Hammatt and Shideler 2011)
Date	November 2011
Project Number (s)	CSH job code WAIAKEA 6
Investigation Permit Number	CSH carried out the fieldwork for this study under state archaeological fieldwork permit No. 11-17 issued by the State Historic Preservation Division (SHPD), per Hawai'i Administrative Rules (HAR) Chapter 13-282
Project Location	The human skeletal remains addressed in this study (consisting of a single femur regarded as constituting a burial) is located under an overhang within a collapsed lava tube measuring approximately 3.5 m N/S by 10 m E/W and designated as State Site 50-10-35-22080. This collapsed lava tube is located undeveloped land west of Komohana St. and north of Puainako St. Waiākea Ahupua'a , South Hilo, Hawai'i Island TMK: [3] 2-4-001:170
Land Jurisdiction	The State of Hawai'i is the landowner of the parcel, which has been transferred to the University of Hawai'i by executive order, DAGS will need to execute an agreement with the University of Hawai'i and the Department of Land and Natural Resources to develop the parcel.
Agencies	This plan is prepared for the review of the Hawai'i Island Burial Council and the State Historic Preservation Division
Project Description	The Department of Accounting and General Services is proposing construction of an Access Driveway along the southern portion of TMK: [3] 2-4-001:170 to a proposed Information and Communications Services Division Waiakea Radio Site and Tower project in the SE corner of TMK: [3] 2-4-001:170
Project Acreage	TMK: [3] 2-4-001: parcel 170 is understood as 1.420 acres. State Site 50-10-35-22080 is only about 35 m^2 (377 square feet)
Historic Preservation Regulatory Context	This Burial Treatment Plan was prepared in accordance with Hawaii Administrative Rules (HAR) 13-300-33 (b) governing the preparation of Burial Treatment Plans
Fieldwork Effort	A field inspection was undertaken on September 6, 2011 by Auli'i Mitchell, B.A. and Sarah Wilkinson B.A. of Cultural Surveys Hawaii under the overall direction of Hallett H. Hammatt, Ph.D. to ascertain that the human skeletal remains were still present and document present conditions. Fieldwork took approximately one work day.
Number of Historic Properties Identified	One

Historic Properties Recommended Eligible to the Hawai'i Register of Historic Places (Hawai'i Register)	SIHP # 50-10-35-22080
Historic Properties Recommended Ineligible to the Hawai'i Register	None
Mitigation Recommendation	The preferred option of the Department of Accounting and General Services is preservation in place (passive preservation) if a buffer zone and any other measures can be agreed to as would allow for the construction of an Access Driveway along the southern portion of TMK: [3] 2-4-001:170 to the proposed Information and Communications Services Division Waiakea Radio Site and Tower project in the SE corner of TMK: [3] 2-4-001:170

Table of Contents

Management Summary i

Section 1 Introduction 1

1.1 Project Background 1
1.2 Project Area Description 1
1.3 Project Description 7

Section 2 Historic Background 8

2.1 Late Pre-Contact and Early Historic Period ca. 1790-1840 9
2.2 Mid 1800s 9
2.3 Late 1800s 10
2.4 Early 1900s 10
2.5 Mid 1900s till present 11
2.6 Summary 12

Section 3 Previous Archaeological Research 13

3.1 Archaeological Work in the Vicinity 13
3.2 Predictive Model 17

Section 4 Results of Fieldwork 18

4.1 State Site 50-10-35-22080 19
4.2 Significance Assigned 22
4.3 Recommendations from Archaeological Inventory Survey Report 22
4.4 Results of 2011 Field Check 23

Section 5 Proposed Burial Treatment 25

5.1 Proposed Buffer Zone 25
5.2 Short Term Measures 25
5.3 Long Term Measures 25

Section 6 Consultation 28

Appendix A SHPD Acceptance Letter for Archaeological Inventory Survey 1

Appendix B Public Notices 1

List of Figures

Figure 1. U. S. Geological Survey map showing location of Bush et al. 2000 survey area, TMK parcel 170 and Burial Site 50-10-35-22080 2
Figure 2 Tax Map Key (TMK) Plat [3] 2-4-001 showing location of Bush et al. 2000 survey area, TMK parcel 170 and Burial Site 50-10-35-22080 3
Figure 3. Aerial photograph showing location of Bush et al. 2000 survey area, TMK parcel 170 and Burial Site 50-10-35-22080 4
Figure 4. Map of 2000 Archaeological Inventory Survey study area showing overgrown road alignment, powerline easement and other pertinent details (from Bush et al. 2000:21) 5
Figure 5. Map of SIHP 50-10-35-22080, showing location of openings 1-6 and of the human remains (from Bush et al. 2000:22) 6
Figure 6. Plan for an Access Driveway along the southern portion of TMK: [3] 2-4-001:170 to the proposed Information and Communications Services Division Waiakea Radio Site and Tower project in the SE corner of TMK: [3] 2-4-001:170 in relation to the burial site (with 50' and 100' radii shown) 27

List of Tables

Table 1 Previous Archaeological Investigations in the *Ahupua'a* of Waiākea, in the Vicinity of the Current Project Area. 13

Section 1 Introduction

1.1 Project Background

Back in 2000, Cultural Surveys Hawai'i, Inc. (CSH) conducted an *Archaeological Inventory Survey of an Approximately 20-Acre Parcel Proposed for the USDA Pacific Basin Agricultural Research Center Located Near the Intersection of Komohana and Puainako Streets, South Hilo, Hawai'i Island (TMK 2-4-01: por. 122)* (Bush et al. 2000) that was accepted by the State Historic Preservation Division in a review letter dated October 4, 2000 (Log No. 26293, Doc No 0010RC03; See present Appendix A for SHPD acceptance letter).

The *Archaeological Inventory Survey* identified one site (State Inventory of Historic Properties # 50-10-35-22080) consisting of a single human femur observed under the overhang of a collapsed lava tube section or "sinkhole". Minimal modifications of the sinkhole were observed. It was believed that the femur was intentionally placed at that location, most likely in pre-contact or early post-Contact times and that it is most likely the ethnicity is Native Hawaiian. The SHPD review letter agreed with the conclusion and ethnicity. Passive preservation was agreed to for the time being.

The State of Hawai'i is the landowner of the parcel, which has been transferred to the University of Hawai'i by executive order, DAGS will need to execute an agreement with the University of Hawai'i and the Department of Land and Natural Resources to develop the parcel. DAGS is acquiring the parcel with the intention of constructing an Information and Communications Services Division Waiakea Radio Site and Tower project and an Access Driveway. This proposed development in the vicinity of SIHP # 50-10-35-22080 triggers the need for this Burial Treatment Plan.

1.2 Project Area Description

SIHP # 50-10-35-22080 designates a collapsed lava tube measuring approximately 3.5 m N/S by 10 m E/W with a human femur under an overhang located approximately 2 kilometers inland of Hilo Harbor. The TMK: [3] 2-4-001: parcel 170 is understood as 1.420 acres and is located approximately 150 m east of Komohana Street and approximately 500 m north of West Puainako St. in Waiākea Ahupua'a , South Hilo, Hawai'i Island (Figures 1 to 5). Natural Setting

Elevation of the project area ranges from 340-360 ft. above mean sea level. Rainfall averages 150-200 inches per year (Kelly et al. 1981). Waiākea Stream, located approximately 400 meters south of the project area, is the only fresh water source in the immediate area. Other than the ubiquitous native *'uluhe* fern (*Dicranopteris linearis*) and some scattered *'ōhi'a* trees (*Metrosideros polymorpha*), the vegetation in the vicinity of the project area is predominately exotic (introduced) plants, including strawberry guava (*Psidium cattleianum*), various grasses, several scattered large Albizia trees (*Paraserianthes falcataria*), and a mango tree.

Project area soils include Pana'ewa very rocky, silty clay loam and exposed *pāhoehoe* lava flow (Sato et al., 1973). Typically, soil is scant, existing in intermittent pockets throughout the *pāhoehoe* flow. Topography is undulating, with a gradual slope *makai* (to the east). Intermittent lava sinkhole features exist throughout the vicinity, ranging in diameter from 1 - 6 m. The 1881

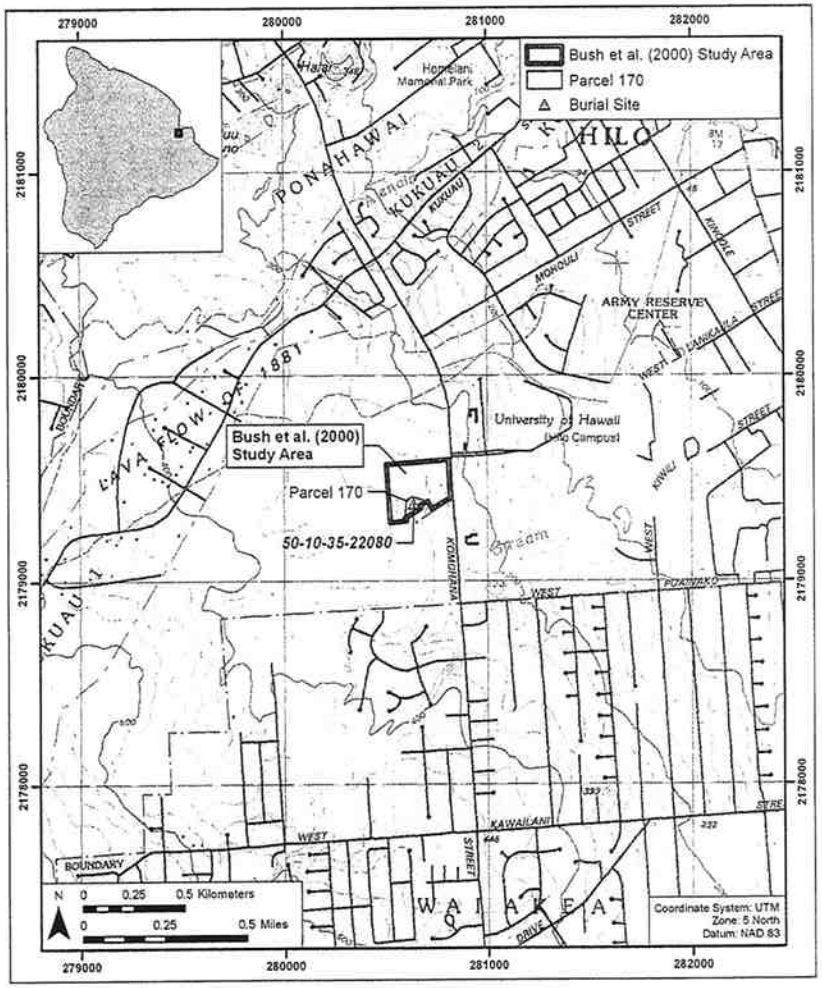

Figure 1. U. S. Geological Survey map showing location of Bush et al. 2000 survey area, TMK parcel 170 and Burial Site 50-10-35-22080

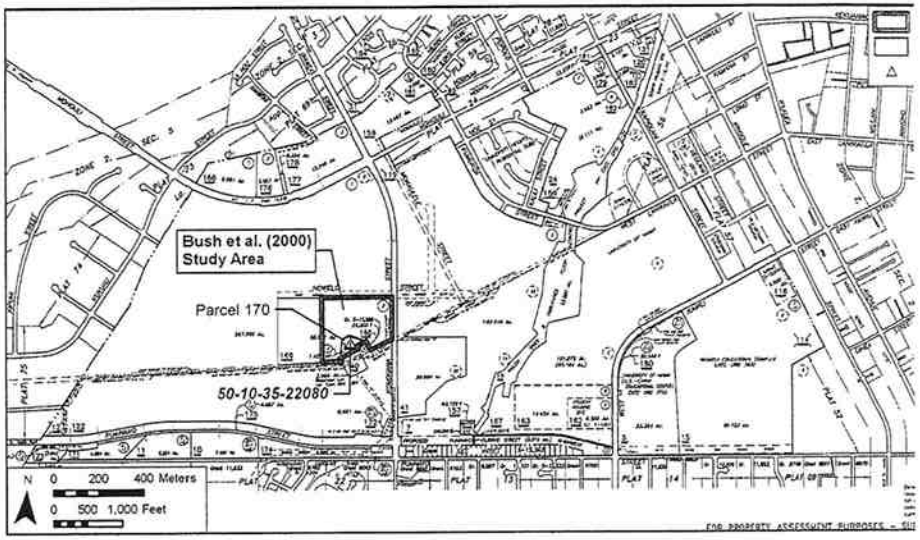

Figure 2 Tax Map Key (TMK) Plat [3] 2-4-001 showing location of Bush et al. 2000 survey area, TMK parcel 10-35-22080

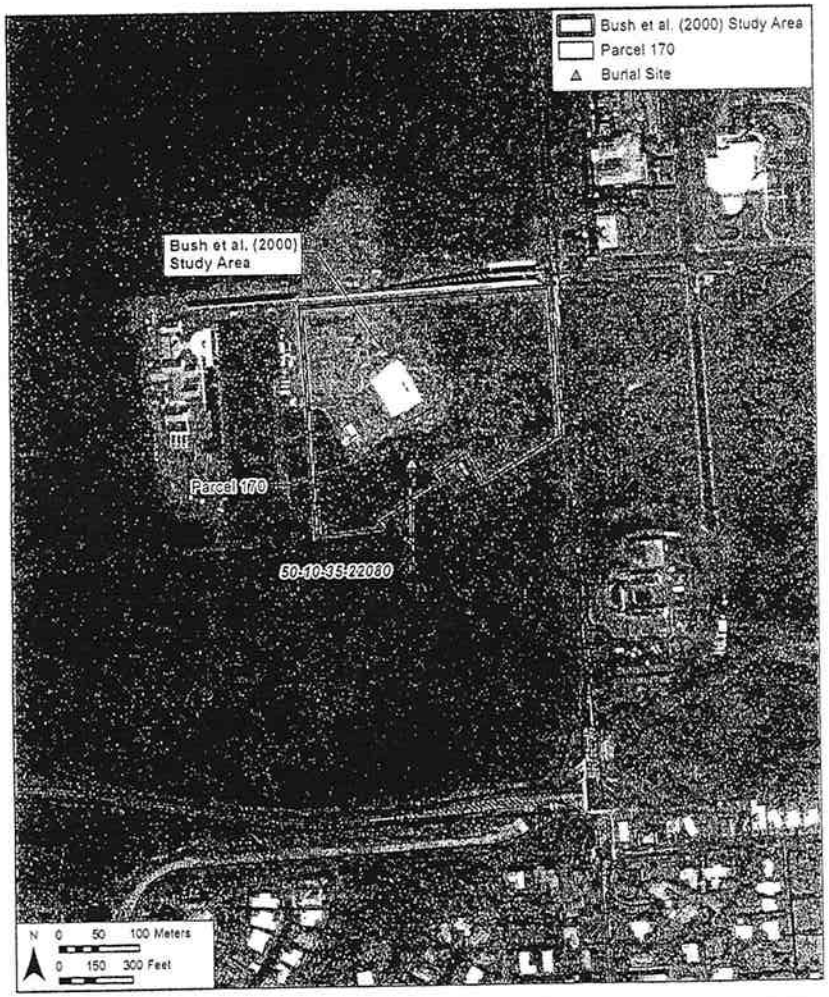

Figure 3. Aerial photograph showing location of Bush et al. 2000 survey area, TMK parcel 170 and Burial Site 50-10-35-22080

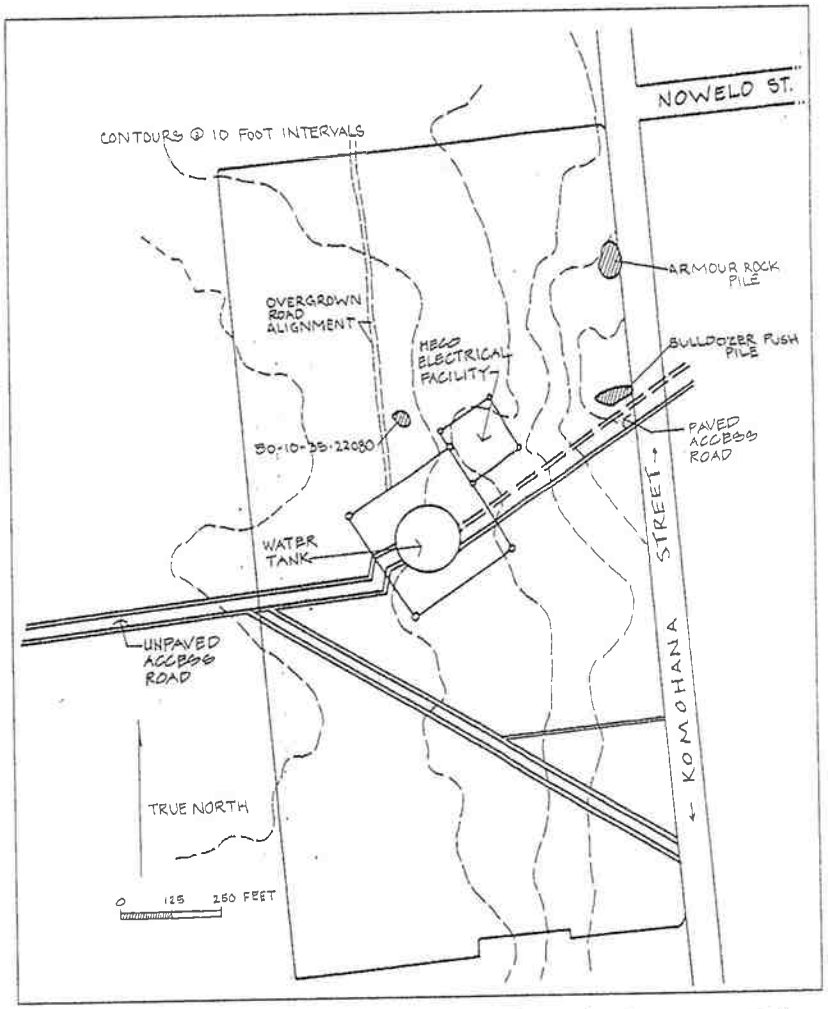

Figure 4. Map of 2000 Archaeological Inventory Survey study area showing overgrown road alignment, powerline easement and other pertinent details (from Bush et al. 2000:21)

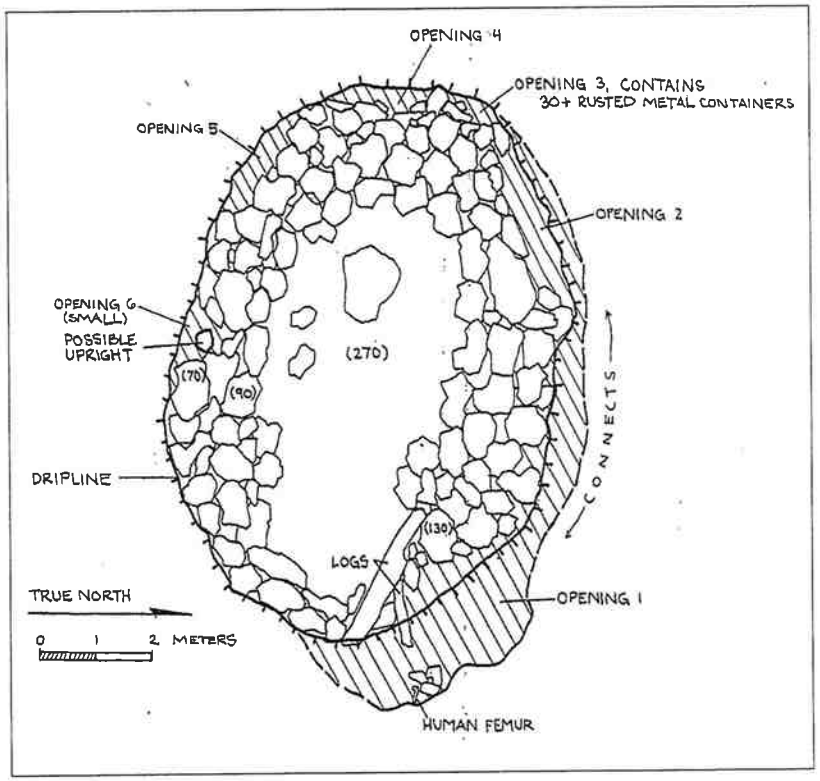

Figure 5. Map of SIHP 50-10-35-22080, showing location of openings 1-6 and of the human remains (from Bush et al. 2000:22)

lava flow is to the north and northeast of the current project area. According to the lava flow age maps included in Smith (1991) the project area substrate consists of 750-1500 year old lava flow. Similar ages for the lava flow substrate for the vicinity are given in Hunt and McDermott (1993:6--citing Lockwood and Buchanan-Banks 1991), who identify the Kulaloa flow dating to 1,100 to 1,400 BP.

A north-south oriented former unimproved road alignment, with associated bulldozer push piles and berms was noted just east of the burial site. Although completely overgrown with vegetation, parallel tire tracks are still visible in some areas. Based on vegetative overgrowth and modern garbage scattered along the road, it appears this road alignment is not older than 50 years, and may have been utilized as recently as 30 years ago. The rusted out remains of a car, model indistinguishable, was found along this road alignment. The road alignment is not considered an historic property. Along Komohana Street there is a stockpile of "armor rocks" (huge boulders), most likely related to construction and excavation associated with Komohana Street. Modern rubbish was found throughout much of the vicinity, with concentrations along the overgrown, unimproved road alignment. This road alignment is thought to be associated with the use of the project area for pasturage.

1.3 Project Description

Plans are still somewhat preliminary but DAGS is proposing an Access Driveway along the southern portion of TMK: [3] 2-4-001:170 to the proposed Information and Communications Services Division Waiakea Radio Site and Tower project to be located in the SE corner of TMK: [3] 2-4-001:170 (see Figure 8).

Section 2 Historic Background

The *ahupua'a* of Waiākea, South Hilo, is large, encompassing some 95,000 acres. It extends from the coast to approximately the 6,000 foot elevation on the windward slope of Mauna Loa. In 1979 Holly McEldowney prepared an "Archaeological and Historical Literature Search and Research Design," as part of a "Lava Flow Control Study" (McEldowney 1979). In her report, McEldowney describes five zones of land use and associated resources. The five zones, which are applicable to Waiākea, include:

I. Coastal settlement;

II. II. Upland Agricultural;

III. Lower Forest;

IV. IV. Rain forest; and

V. V. Sub-Alpine or Montaine (McEldowney 1979).

The current project area exists entirely within Zone II, or the Upland Agricultural zone. As such, only this zone is described in depth here.

Zone II is defined as ranging from 50 - 1,500 ft in elevation. The zone was described by "early visitors to Hilo Bay" as "an open parkland gently sloping to the base of the woods." ... "an expanse broken by widely spaced cottages" or huts, neatly tended gardens, and small clusters of trees" (McEldowney 1979).

The present study area is situated within the lower elevations of this upland agricultural zone. Though described as a vast "expanse", it would appear that only the more agriculturally productive areas were intensively farmed. In the 1820s, it was "estimated that 1/20 of the expanse (i.e., zone of cultivation) in N. and S. Hilo was planted in crops" (Goodrich 1826:4 cited in McEldowney 1979:21). The reasons for what appeared to the early visitors as a "lack of more extensive planting " (McEldowney 1979:21) include, the need for fallow periods especially in soils where nutrients are rapidly leached out, but more important to intensive agricultural use in the Hilo area is soil type or lack thereof. Intensive agricultural in Zone II was focused on areas with a soil mantle leaving younger exposed lava areas for plants not needing continuous care (e.g. grasses, ferns).

Habitation within the upland agricultural zone (i.e. Zone II) apparently included some permanent occupation sites but was still dominantly temporary. The description of habitations refer to "scattered huts" with adjacent "garden plots" or "cottages" with "neatly tended gardens " (McEldowney 1979: 18-19) but no descriptions of village complexes like those along the coast.

The upland agricultural zone was probably expanded into as the prime lands within the coastal zone were intensively utilized. Over time the upland agricultural zone was converted from forest to an "open parkland" where plantings occurred on soil mantled lava flows. Habitation for the most part was probably temporary with a few scattered permanent occupation complexes.

2.1 Late Pre-Contact and Early Historic Period ca. 1790-1840

The rich and varied resources that Waiākea offered made it one of the most important locales on Hawai'i Island. Traditional accounts concerning Waiākea include references to it being the seat of chiefly residences as early as ca. A.D. 1550 (Kelly, Nakamura, Barrère 1981). Chiefly associations with Waiākea continued through traditional times and into the historic era. Kamehameha retained Waiākea after he had conquered all of the islands (ca. 1800), and upon "his death his personally held Hilo lands, including Pi'i-honua, Punahoa, and Waiākea, descended to Liholiho, his son and heir to the kingdom, "..additionally " Kamehameha had given the *'ili kupono* of Pi'opi'o to his favorite wife Ka'ahumanu" (Kelly, Nakamura, Barrère 1981: 11). The *'ili* of Pi'opi'o is in Waiākea and is situated between Hilo Bay and Wailoa River and its associated fishponds.

Land use during the early historic period was still essentially subsistence based though aspects of major changes were occurring. The sandalwood trade, establishment of the American Board of Commissioners for Foreign Missions (ABCFM) station in Hilo, and the arrival of whalers began the shift away from subsistence to a market based economy. Settlement was still focused on the coastal zone as was most of the agricultural production of both indigenous food crops and newly introduced plants.

During this early historic period the land use of the Forest and Sub-Alpine Zones was changing. The more traditional land use activities in the upper zones, such as the procurement of timber products and bird feathers (McEldowney 1979:35), was replaced by the hunting of cattle, goats, and sheep in the upper zones. These animals were introduced in the 1790s and after an imposed 10 year prohibition on their killing had spread over large portions of the interior of Hawai'i Island, especially the Waimea area. However, "by the 1830s substantial amounts of hides, jerked meat, and tallow were exported from Hilo" (McEldowney 1979:36).

2.2 Mid 1800s

Traditional land tenure changed during this time span to the privatization of land ownership. Generally referred to as the "Great Māhele" privatization actually included a number of government acts from the late 1840s to the mid 1850s. The Kamehameha dynasty's control over the valuable Waiākea Ahupua'a was evidenced in that virtually the entire *ahupua'a* became Crown Lands with the *'ili* of Pi'opi'o awarded to Victoria Kamāmalu (LCA 7713:16), a granddaughter of Kamehameha I and heir to Ka'ahumanu as well.

Twenty-six (26) Land Commission Awards (LCAs) were granted within Waiākea. None of these LCAs are within the present study area. The LCAs were all within the coastal zone, except for two (2663 and 2402) which were in the lower portion (i.e. ca. 100 ft. AMSL) of the upland agricultural zone. The LCAs or *kuleana*(s) were for the most part focused around the edges of the large fishponds of Waiākea. Land use information for the *kuleana* generally refer to cultivated fields with house lots indicating habitation and agricultural production within the same zone, unlike leeward Hawaii Island where in many cases *kuleana* included coastal house lots with the need of corresponding upland agricultural lots, because of elevation dependent rainfall.

Interior land use during this period was progressing toward more organized ranching, especially cattle ranching. Timber for firewood and housing was also still being exploited, as

Hilo was being transformed into an entirely wooden-framed "New Bedford type Whaling Town" (McEldowney 1979:37).

The coastal zone still contained the vast majority of the population. Houses and stores were concentrated in the northern half of Hilo bay, somewhat removed from Waiākea, because at the time the main pier for Hilo was at the mouth of the Wailuku River. This indicates a substantial change from the traditional settlement pattern of a "nearly continuous complex of native huts" along the bay's shoreline.

2.3 Late 1800s

During this period commercial sugar cane became the economic mainstay of the Hilo area with Waiākea Mill Company becoming one of the largest. Plantation operations generally developed ca. 1860s and for Waiākea this was on leased Crown lands. Waiākea Mill Company was in operation by the late 1870s and through its agents, Theo H. Davies and Alexander Young, had procured the lease of all of Waiākea by 1888 (Kelly, Nakamura, Barrère 1981:89). The mill was located at the head (*mauka* end) of Waiākea Fishpond and sugar was transported by barge through the pond and down Wailoa River to Hilo Bay.

Immigrant labor (Chinese, Japanese, Portuguese) were living in "camps" set up by the plantation for its workers. Waiākea Mill Co. would eventually have some 10 camps situated along major rail lines of the plantation. The current project area is outside the land cultivated for sugar, there are no historic residence camps in the immediate vicinity of the project area, and railroad features do not cross through the project area. The current project area is within the land described as "Waiākea Pasture Land".

Land use was dominated by commercial cane activities within Zones I to III (Coast to Lower Rain Forest). Ranching became formalized though not specific to Waiākea. "Other examples of business, not directly related to sugar cultivation, were the continued use of the Waiākea fishponds, an active Chinese fish market, small pastures above Hilo supporting dairy cattle (perhaps the Waiākea Pasture Land), and scattered vegetable gardens" (McEldowney 1979:39).

2.4 Early 1900s

Sugar and its associated industries continued to expand during this period. The Hawaii Consolidated Railway was built eventually extending "from Waiākea Mill and wharf through Puna, most of Ōla'a and along the N and S Hilo coast" (McEldowney 1979:41). Many of the immigrant laborers from the late 1800s moved off the plantation, being replaced by new Filipino laborers. Hilo continued to grow and become the second largest urban center in the new Territory of Hawaii.

Ranching in the Hilo areas, but not specifically in Waiākea, came under the control of two large enterprises; the Parker and Shipman Ranches. In Waiākea a large portion of Zone II (Upland Agricultural Zone) too rocky for sugar cane cultivation became available for lease as Waiākea pasture lands. The present study area is entirely former Waiākea pasture land. The specific use of the pasture land is not known but McEldowney indicates that "A substantial amount of grazing land adjacent to Hilo or to sugarcane fields supported dairy cows for Hilo's several dairies" (McEldowney 1979:41). In 1918 the 30-year lease of the Waiākea Mill Co.

expired and because Hawai'i had become a Territory the "land fell under homesteading laws that required the government to put some of it up for lease to homesteaders who would be willing to grow sugar cane on it. Waiākea Mill was to grind the crop for them. A total of about 700 acres of land was divided into cane lots (between 10 and 76 acres each) and house lots ranging from 1 to 3 acres..." (Kelly, Nakamura, Barrère 1981:121). The homestead and cane lots eventually reverted to the overall mechanized cultivation of the mill company as the homestead and cane lots "experiment was declared a failure" (Kelly, Nakamura, Barrère 1981:121).

By the 1920s the Waiākea Mill Co. had some 7,000 acres in cane production. Also, in the 1920s large tracts of remaining forest in Waiākea were "designated as forest reserve" (McEldowney 1979:42). The main reason appears to have been for maintaining the "forest as a 'watershed' to capture, retain, and support the continuous flow of water necessary to the sugar industry" (McEldowney 1979:42). Clearly, sugar was the dominate economic factor during this period including the formation of settlements (i.e. camps).

2.5 Mid 1900s till present

Plantation life dominated the early portion of this time span but in 1948 Waiākea Mill Co. was liquidated (Condé and Best 1973:119). However, a major industry associated with cane by-products, canec, was begun in 1928. The canec plant was located adjacent to Waiākea Mill with bagasse, the cane by-product utilized, pumped through pipes from the mill to the plant. The canec plant shut down operations in 1966.

During this period major construction jobs started in the 1920s were completed. These major construction jobs, in part, included Hilo Bay, wharfs and breakwater and bridges. Some of these projects were actually major reconstruction work form damage during the winter of 1923, which included storm surf in January and a tidal wave in February (Kelly, Nakamura and Barrère 1981:171). During the World War II period in Hilo, expansion and designation of Hilo airport as General Lyman Field and the construction of the Saddle Road were major projects undertaken as part of the military presence on the island, which was very substantial.

Prior to the closing of the Waiākea Mill Co. there were at least 10 "camps" or plantation villages. Only Camp 1 was within the coastal zone with Camps 2 to 10 within the upland agricultural zone with Camp 10 the highest at ca. 1300 ft. a.m.s.l. Based on available historic maps, the project area was never used for large-scale sugar cane cultivation.

After statehood (1959) and with the closing of the mill and canec plant, tourism was looked at as the next economic mainstay. In Waiākea, C. Brewer & Co. built a hotel complex at the site of the old canec plant. Other hotels were built along the Hilo Bay frontage of Waiākea near Coconut Island or Mokuola. Large tracts of former Waiākea Homestead and Cane lots were converted to housing or sub-division tracts adjacent to the study area. U.H. Hilo campus was expanded as it continues to do presently. The study area itself most likely ceased to be utilized for pasturage in the 1960s. Since that time an adjacent area has been used to construct a County of Hawai'i reservoir and associated pipeline (Exec. Ord. No. 1391) and the Hawaiian Electric Light Co. Inc. electric transformers. An access road, partially paved extends to these utilities from Komohana Street, to the east.

2.6 Summary

The present project lies within the *ahupua'a* of Waiākea. It is contained within Zone II, or the Upland Agricultural Zone, according to McEldowney's (1979) zones of land use and associated resources. This is defined as the 50 - 1,500 ft. elevation, an area of "open parkland gently sloping to the base of the woods," (McEldowney 1979). Some permanent habitation occurred in this region, but the majority of habitation was of a temporary nature (i.e. "scattered huts" as opposed to the village complexes near the coast).

Chiefly associations with the *ahupua'a* of Waiākea began early, with chiefly residences being documented as early as ca. 1550 (Kelly, Nakamura, Barrère 1981), mainly due to the rich resources of the area (i.e. fishponds, crops, sandalwood, bird feathers, and later the whaling industry). Kamehameha I retained Waiākea after conquering the island, and later gave the *'ili* of Pi'opi'o to his favorite wife Ka'ahumanu.

In the early 1800s, with the coming of the sandalwood trade, the arrival of the ABCFM station in Hilo, and the whaling industry descending on the Hilo area came the shift from a subsistence-based to a more market-based economy. Land use still remained essentially the same, but was starting to evolve, as elements such as cattle, timber and whaling became more intensive.

In the mid- 1800s, the Māhele brought with it the end of traditional land tenure, issuing in the age of privatization of land. Twenty-six Land Commission Awards (LCAs) were granted within Waiākea, all but two being in the coastal zone, and the remaining two being within the first 100 ft AMSL of the upland agricultural zone (not close to the current project area). Cattle ranching was at the forefront in interior land areas, while Hilo Town was being transformed into an entirely wooden-framed "New Bedford-type Whaling Town" (McEldowney 1979). Though the coastal zone still contained a vast majority of the population, the construction of houses and stores started to shift out of Waiākea and to the north, as the main pier for Hilo was located at the mouth of the Wailuku River. This is a significant shift from traditional coastal settlement.

The late 1800s brought with it the advent of sugarcane and the Waiākea Mill Company. Plantations developed in the 1860s, and by the 1888 the Waiākea Mill had procured all of the *ahupua'a* of Waiākea. Immigrant labor lived in "camps", near existing sugar cane railroad lines.

With the 1900s came the expansion of sugar cane production in the area, but also brought in the Parker and Shipman ranches for pasture in areas too rocky for sugar cane. "A substantial amount of grazing land adjacent to Hilo or to sugarcane fields supported dairy cows for Hilo's several dairies" (McEldowney, 1979). Homesteading was tried but declared a failure two years later. In the 1920s several large tracts of the remaining forest lands in Waiākea were designated as a forest reserve (McEldowney 1979).

In the late 1900s, major construction projects were completed in the Hilo area (i.e. Hilo Bay, wharfs, breakwater, and bridges, the Hilo Airport, and construction of the Saddle Road). After statehood, and with the closing of the sugar mill and canec plant, tourism was focused on. U.H. Hilo's campus was constructed and continues to be developed.

Section 3 Previous Archaeological Research

3.1 Archaeological Work in the Vicinity

Below is a table summarizing previous archaeological investigations in the *ahupua'a* of Waiākea.

Table 1 Previous Archaeological Investigations in the *Ahupua'a* of Waiākea, in the Vicinity of the Current Project Area.

Reference	Location	Description and Results
Thrum 1907	*Ahupua'a* of Waiākea *heiau* sites	No *heiau* located near the present project parcel.
Thrum 1908	*Ahupua'a* of Waiākea	An inventory/description of *Heiau* throughout Hawai'i. Identifies 3 *heiau* within the *ahupua'a* of Waiākea.
Hudson 1930	East Hawai'i	Site Survey.
McEldowney1979	Hilo Bay area	Zonal Characteristics--Land-use study.
Kelly, Nakamura, and Barrère 1981		History of Hilo Bay area; nothing specifically pertaining to current project area.
Smith 1991	Waiākea, South Hilo, Hawai'i Island TMK: 3-2-4-01:7	Sites exist on the >4000 year old flow; one site on the 1500 - 750 year old flow; inventory survey recommended.
Smith 1992	Waiākea Cane Lots, Waiākea, South Hilo, Hawaii Island TMK: 3-2-4-56:1	Several stacked stone walls, mounds, a large rectangular enclosure, and several "C"-shapes.
Moniz 1992	*Ahupua'a* of Waiākea, Hilo, Hawai'i	A listing of 1979-1992 inventory surveys within Waiākea, including walls, platforms, and a burial cave.

Reference	Location	Description and Results
Hunt 1992	Lands of Waiākea, Kukuau 1& 2, and Ponahawai, South Hilo District, Hawai'i (Puainako Street Extension project)	Interim report of inventory survey field inspection findings--31 features identified within the project boundaries, including walls, mounds, platforms, and faced terraces.
Spear 1993	Pi'ihonua Ahupua'a, South Hilo TMK:2-3-32:4	Inventory survey of 5-acre parcel. Two historic features located and documented--an oven and a trash dump. No further work recommended.
Borthwick, Collins, Folk and Hammatt 1993	*Ahupua'a* of Waiākea TMK: 2-4-01:7 and 41	Inventory survey-163 acres immediately across Komohana Street from the present project area. Four sites found--all thought to be related to historic agriculture (sugar cane). No further work recommended beyond the documentation of the inventory survey
Hunt and McDermott 1994	Lands of Waiākea, Kukuau 1 and 2, and Ponahawai, South Hilo (Puainako Street Extension project)	Inventory survey (final report of Hunt 1992). Historical, oral interview, and archaeological data combine to demonstrate the numerous stack stone features in the project area, comprising 13 sites, are all related to historic sugar cane agriculture.

Reference	Location	Description and Results
Maly, Walker, and Rosendahl 1994	Land of Waiākea, South Hilo, TMK:2-4-57:01	Inventory survey of 4.5 Waiākea Cane lots parcel. Four sites, comprising 47 features (C-shape and L-shape walls, mounds terraces and walls). These features were thought similar in appearance to the historic features reported by Hunt and McDermott. One radiocarbon date and recovered artifacts may indicate prehistoric land-use of the parcel. Data recovery recommended.
Spear 1995	Land of Waiākea, South Hilo, TMK:2-4-57:01	Data recovery of the Maly et al. (1994) parcel. Following excavation, all features in the project area are considered historic, a few temporary habitations, but the majority related to historic sugar cane agricultural. No additional archaeological work is recommended.
Robins and Spear 1996	Lands of Waiākea, Kukuau 1& 2, and Ponahawai, South Hilo District, Hawai'i (Puainako Street Extension project)	Inventory survey of same alignments, but wider corridor, of the same Puainako Street Extension project inventoried by Hunt and McDermott (1994)--additional historic sugar cane agricultural features were located.
Bush, McDermott and Hammatt 2000	Located Near the Intersection of Komohana and Puainako Streets, South Hilo, Hawai'i Island (TMK 2-4-01: por. 122	Archaeological Inventory Survey of an Approximately 20-Acre Parcel Proposed for the USDA Pacific Basin Agricultural Research Center. Identified SIHP # 50-10-35-22080 (subject of present plan)

Several of the above listed reports are particularly helpful regarding the types of sites and their distribution that can be expected within the vicinity of the current project area. These include Smith (1991; 1992), Borthwick et al. (1993), and the series of reports related to the Pu'ainako Street Extension/Realignment project, including Hunt (1992), Hunt and McDermott (1994) and Robins and Spear (1996).

Marc Smith conducted three separate field checks on October 18, 24, and 27, 1991. Observed during the field checks were a number of historic sites including "large faced platforms, modified outcrops, enclosures which may be house sites, and a large walled enclosure" (Smith 1991). Smith also noted similar features in another project area, bounded by Ululani, Kawili, and Kapi'olani Streets, and located within the former "Waiākea Cane Lots, during the field inspection further *makai* of the current project area (Smith 1992). In both cases, based on the findings of subsequent investigations in the vicinity and within the specific project areas themselves (Borthwick et al. 1993; Maly et al. 1994; Hunt and McDermott 1994; Spears 1995), these features were demonstrated to be the result of historic sugar cane agriculture, see discussion below.

Additionally, Smith noted three different lava flows in the area. The flows include: 1) a portion of the 1881 Mauna Loa *pāhoehoe* flow; 2) a *pāhoehoe* flow "dating to 1.5 - .75 KA (1,500 to 750 B.P)"; and 3) the oldest flow which has "a more level soil surface" and dates to ">4,0 KA (greater than 4,000 B.P.)" (Smith 1991). The lava-flow age determinations are based on work by Lovelace as referenced in Marc Smith's letter. According to Smith, age of the flows has a direct correlation to site distribution. The only sites observed were "on the >4,000 year old flow," except one site which "appears to be constructed along the margin of the 1,500-to-750-year-old flow, suggesting others may exist" (Smith 1991). Clearly sites are much more common on the older, more weathered lava flows that have significantly greater soil development.

The survey for the proposed Puainako Street Extension (Hunt 1992; Hunt and McDermott 1994; Robins and Spear 1996) covered various road corridor alignments from the 200 - 1500 ft elevation, through multiple *ahupua'a* including Waiākea, Kūkūau 1 and 2, and a small part of Ponohawai. A total of 13 sites were observed and recorded. Site types included stacked stone walls, mounds, platforms, modified outcrops, and faced terraces. Also documented were railroad related features such as berms, sections of track, and cross-ties. The historical research and oral interviews with knowledgeable local residents provided ample evidence that all of these features were historic and related to the development of commercial sugar cane agriculture in this portion of Hilo after 1870s. The stacked stone structures are predominantly related to field clearance. The stony soil yielded large quantities of basalt cobbles and boulders that had to be stored in an efficient manor to maximize the arable land. The limited evidence of prehistoric land-use within the Pu'ainako Street Extension project clearly predated the construction of the numerous stacked stone features (Hunt and McDermott 1994).

The work of Borthwick et al. (1993) in the U. H. Hilo parcel directly across Komohana Street from the current project area is relevant. Similar types of stacked stone structures, like those found in the Pu'ainako Street Extension project area, were found. These features, which included some historic walled fields with plow-furrows still visible on the land surface, were shown to date to historic sugar cane agriculture, circa post-1870. The distribution of the features was found to follow the distribution of the three lava flows that crossed through the project area. Sites were

clustered on the oldest flow (c. greater than 4,000 B.P.) and along the margin where the greater than 4,000 B.P. flow met the younger 1,500 to 750 B. P. flow (Borthwick, personal communication, 2000). This substantiates the observations made by Smith (1991).

3.2 Predictive Model

The current project area is located on the 1,500 to 750 B. P. lava flow (Smith 1991). Previous archaeological research in the Hilo area (Borthwick et al. 1993; Smith 1991) has demonstrated that lava flow age maps are useful tools for predictions of site densities and distributions. In the vicinity of the current project area, archaeological research has shown that historic properties are concentrated on the older lava flows. The 1,500 to 750 B. P. lava flow and the recent 1881 flow contain drastically fewer sites. This is related to soil distribution and historic agriculture. Within the vicinity of the current project area the most common site types are related to historic sugar cane agriculture. Accordingly it is not surprising that site distributions clearly mirror the distributions of older lava flows where soil development, and hence agricultural productivity, is greater. Based on the archaeological information summarized above, it is unlikely that the historic sugar cane related clearing mounds, walls, and railroad features, noted in nearby project areas on older lava flows, will be found in the current project area.

Historic maps confirm this conclusion. All historic maps show the current project area outside the bounds of the sugar cane agricultural lands. On historic maps the project area is listed as pasture. It is possible that historic features related to this land use will be found, including fence lines and possibly water troughs and/or tanks.

Evidence for Traditional-Hawaiian land-use within the current project area is lacking. As part of McEldowney's (1979) upland agricultural zone, this 'unwooded grassland' area is generalized to contain the following traditional site types: scattered habitations with adjacent garden and tree plots, modified lava tubes and sinks, and dryland agriculture on the older lava flows and in ash deposits. In light of the poor soils and exposed lava flows within the project area it is unlikely that intensive agriculture took place there in the prehistoric period. There is the possibility that opportunistic dryland agriculture took place, however this is unlikely. The remnants of traditional trails, with associated trail markers, or ahu, are a possible site type that may be found in the project area. Sinks and lava tubes modified for temporary habitation or agriculture are another possibility.

Section 4 Results of Fieldwork

Pedestrian inspection of the project vicinity (an area of approximately 20 acres was initially studied) was initially carried out on May 8th, 9th, 15th, 16th, and 17th, 2000. The first two days of field work were carried out as a preliminary reconnaissance of the project area to determine the types and density of different site types within the project area. Based on the findings of this reconnaissance, additional field work the following week was done to complete the 100 % coverage of the project area that is required for an archaeological inventory survey. Pedestrian inspection methods were the same during all field work. Systematic north-south oriented sweeps were done through the project area with an interval between archaeologists of 5 to 10 meters. Project area vegetation consists of a dense mix of *'uluhe* and strawberry guava. There is little soil development and *pāhoehoe* is commonly exposed on the surface. Topography is undulating, with a gradual slope *makai* (to the east). Numerous small lava-sink features are located in the project area. Pigs are common in the area, and although only one pig was seen in the project area, the ubiquitous pig trails and rooting areas facilitated traverse of the dense vegetation.

During the course of fieldwork, several features related to past land use were noted and described. A north-south oriented former unimproved road alignment was noted near the center of the project area. This alignment was overgrown with vegetation but parallel tire markings were still discernable, as were the parallel berms which make up the road margins. Judging by the modern garbage scattered along the margins of the road, this road alignment was understood to be not older than 50 years--and may have been in use as recently as 20-30 years previously based on the age of the overgrowth. The rusted out remains of a car were found along this road alignment. The road alignment is not considered a historic property. There are bulldozer push-piles along the margin of the water tank and electrical facility access road that mark the southern end of that Bush et al. 2000 project area. Along Komohana Street there was noted a stockpile of "armor rock" --boulders greater than 1 meter in diameter most likely related to the construction and excavation associated with Komohana Street. Modern garbage (bottles, canned-food refuse, plastic etc.) is lightly scattered through most of the project area. Several well-tended marijuana plants were also noted.

Historic maps related to the Waiākea Sugar lands indicate that at the turn of the century the project area was considered pasture. These maps do not indicate habitation in the area. There is no evidence of agricultural activity in the parcel. A single medium-sized mango tree and the unimproved road alignment itself, are the only indications of 20th century land use predating the last 30 years.

On May 9th, 2000 human skeletal remains were found during the preliminary reconnaissance of the project area. The remains consist of a single, left femur found in a lava sink feature. No other remains or cultural material were located in the sink. Based on the eroded appearance of the bone and the general context, the remains are thought to be traditional Native Hawaiian--most likely pre-Contact or early historic--although this could not be conclusively demonstrated. Mr. Kala'au Wahilani (State Historic Preservation Division--Burials Program) was notified immediately of the find, as was Mr. Marc Smith (State Historic Preservation Division--archaeology branch). Mr. Smith visited the project area on May 9th and was appraised of the project findings, but did not visit the burial sink.

Following the initial preliminary reconnaissance of the project area a more intensive archaeological inventory survey was conducted. With the completion of the pedestrian inspection during the inventory survey, 100% of the project area was inspected. During the inventory survey, in the vicinity of the burial sink, several additional sinks were located. Careful examination of these features found no evidence of burial interment or other cultural modification. Although vegetation was dense, confidence is high that all historic properties in the project area were located during the survey.

4.1 State Site 50-10-35-22080

Only a single historic property was recorded. This site, State Site 50-10-35-22080, found and documented during the preliminary reconnaissance, is described at length below:

State Site #	50-10-35-22080
Site Type:	Sinkhole and associated caves/ overhangs
Function:	Burial Cave
Features (#):	1
Dimensions:	3.5 m X 10 m

Description: Site -22080 consisted of one large sinkhole and its 6 associated shallow, caves, or overhangs. The sinkhole appears abruptly in a relatively flat region, just northwest of the only bamboo patch within the project area (see Figures 1 to 4 for the site location). The dimensions of the sinkhole are approximately 10 m (E/W) x 3.5 m (N/S) and 2.7 m deep at its deepest point.

The edges of the sinkhole have collapsed and many large, loose boulders are piled around the interior circumference of the sink, forming a slight talus slope. The upper surface of this boulder-collapse deposit is between 70 - 130 cm below the edge of the sinkhole. These boulders, along with existing overhanging areas of the sinkhole interior lip, form six openings / caves along the edges of the sinkhole (see Figure 5).

Opening 1 was the largest of the six, with the entrance extending approximately 2.9 m (SE/NW), it was 1.2 m tall, and extends 2.1 m (NE) from the lip to the back. A rotting log and some of the collapsed boulders partially blocked the entrance. The interior of the cave was large enough to crawl into, but ceiling heights are low, c. 40-75 cm. A single left human femur was found at the back/southern end of Opening 1. No teeth or other skeletal remains were present. Numerous small bone fragments were present near the femur. These were pieces of the femur itself, which is deteriorating due to exposure to the elements. The bone lies on the cave surface amid several basalt boulders. No other cultural material was found in association with the femur. Upon further examination, it became apparent that Openings 1 and 2 were actually the same overhang, but collapsed boulders have separated them into two distinct "openings" or caves.

Opening 2, found to connect with Opening 1 to the east, had an entrance width of 2.8 m (E/W), it was 1.0 m tall, and extended 0.5 m (N) from the lip to the back. Upon inspection, opening 2 contained no cultural material.

Opening 3, the smallest of the six, just south of Opening 2, had an entrance width of 0.7 m, an entrance height of 0.8 m, and extended in a downward / west direction, approximately 0.8 m. It contains 30 or more rusted and/or tarnished, cylindrical metal containers, which appear to be "tin cans" from canned food.

Opening 4, 5, and 6 had entrance widths ranging from 0.4 - 0.9 m, all three openings being approximately 0.6 m tall, and each extending no more than 0.2 m back from the lip, but all three opening in a downward direction approximately 0.8 m. Upon inspection, Openings 4, 5, and 6 were found to be empty of any cultural evidence. Outside the entrance to the opening 6 an elongated, upright basalt boulder was noted. It was not possible to determine if this was an intentionally placed "upright", or merely the natural resting posture of fallen boulder.

The age, ethnicity, and function (or reason for deposition) of the single human femur within Site 50-10-35-22080 is a matter of speculation. Possible scenarios for the deposition of the isolated bone include: 1) deposition by Native Hawaiians as a discarded keep-sake; 2) deposition by Native Hawaiians as the secreted remains of a grave robbed for bone to be used as raw material for fish hook manufacture; 3) deposition by some other ethnic group as part of a mortuary practice; and 4) deposition by an animal, such as a dog or pig, from a disturbed burial.

It is a possibility that the human femur is the result of grave vandalism and/or the search for human bone raw material for the fish hook manufacture. These types of vandalized burials are discussed by Bowen (1974:144-146), in the context of the sand dune burials of Mōkapu Peninsula, O'ahu. However, the long bones of these vandalized burials were cut and/or shattered to obtain the tabular fragments of human bone that were used for fish hook manufacture. The femur in Site 50-10-35-22080 is decomposing from exposure, but it is not cut or shattered. It seems less likely that this isolated femur was associated with the search for fish hook raw material.

The various non-Hawaiian ethnic groups that lived in the vicinity of the project area during the historic period included various European nationalities, including Portuguese, and Chinese, Japanese, and Filipino. It is less likely that these ethnic groups would have an established mortuary practice involving the deposition of an isolated human bone in a cave feature.

An animal, such as a dog or pig, could possibly have been responsible for the deposition of the femur, but this seems unlikely. There was no evidence that the sink had been used as a "den". No other bone fragments were observed in the sink feature indicating this was not a location of an animal hoard. Also, the low ceiling height (c. 40 cm) at the location where the bone was deposited would have been difficult for most animals to negotiate. This may seem a counter-intuitive argument, that because the femur was found in a difficult spot for animals to reach, it was therefore was most likely deposited by humans. The explanation lies in the difficult crawl from the sink opening to the location of the femur. One must worm over boulders beneath a low ceiling height. The feeling is the bone was intentionally hidden away in a rather difficult to reach location rather than carried in easily by an animal to an often utilized location.

There is a fair amount of ethnographic information and archaeological data documenting the common Native Hawaiian mortuary practice of curation of skeletal material or other body parts as keep-sakes from deceased loved-ones. Based on this information, the most likely scenario is number 1--that the femur is Native Hawaiian, of prehistoric or early historic age, and was deposited as a discarded keepsake. It should be understood, however, that this cannot be demonstrated conclusively.

The following is brief summary of the ethnographic and archaeological discussion of Native Hawaiian secondary burial deposition and body part keep-sake curation.

David Malo (1996: English Translation 202), speaking of traditional Hawaiian burial practices and writing in the mid 19th century, lists the following under the heading "Concerning the Dead [Corpses]":

15. And another corpse could be buried and hidden if the person was beloved by her husband or his wife. Then, he or she would secretly go and take four bones (*nā iwi iha* in the original manuscript [Emerson,1971;98]), and the skull, washing all of the rotten flesh off in fresh water.

16. Then, the bones were put into his or her pillow bundle and he or she slept with this bundle (*pū 'ā iwi*) every night. There were many corpse treated in this beloved way

17. If the bones were not taken, then perhaps a hand or palm was cut off and dried in the sun, so one would sleep with this part of the body; or if not a palm of the hand or perhaps the person's hair; or if not hair, then a person's finger nails (*niho hāhā*) or toenails.

18. These were the body parts that were taken by those who greatly loved [the deceased], and they were well taken care of until the time one's love for the deceased ended, then these parts or the corpse were abandoned.

Several archaeological reports dealing with mortuary practices indicate that the retention of human remains was a common way for traditional Native Hawaiians to mourn their love ones. For example:

> Secondary burials were keepsakes in ancient times, and included bones of both sexes and all age groups. Secondary burials imply a two-part preparation process involving defleshing and dismemberment followed by interment. (Han et al. 1986:67).

and,

> A 1957 Mokapu sand burial seems to represent an example of a neglected keepsake. In this disposal (C16), a femur and tibia of one individual had been placed with both femora and one tibia of another. The five bones lay parallel to each other, as if they had been placed in a bundle. The bones may have been returned by a grave robber who had a twinge of conscience, but more likely represent mementos kept with loved ones for a period of time which were buried in the dunes after affection subsided.
>
> . . . How many disarticulated skeletal parts found in disposal sites fall into keepsake category is a matter of conjecture. From Malo's (1951:93--quoted above) description, the custom seems to have been popular and it is probably safe to assume that many isolated skeletal parts fall into this category. (Bowen 1961:185).

The sink feature (Site 50-10-35-22080) was discovered during the second day of field work, May 9th, during the reconnaissance phase of the field work. During the initial discussion with SHPD following the discovery of the site, there were questions regarding whether a single bone constitutes a burial site and, if it was a burial site, is it considered a previously recorded or an

inadvertent burial find. The treatment of the burial site was the subject of a meeting between U. H. Hilo representatives (the landowner), SHPD (Mr. Kala'au Wahilani and Mr. Marc Smith), a representative of the Hawai'i Island Burial Council, a representative of SSFM International, Inc., and representatives of the USDA, on June 8th, 2000. Following the direction of Mr. Kala'au Wahilani, of the SHPD Burials Program, Site 50-10-35-22080 is considered a burial site, At the June 8th meeting it was decided that the burial mitigation would be taken care of by the land owner, (U. H. Hilo). A 50' buffer area measuring from the rim of the burial sink was proposed. Also at this meeting it was proposed that the land area under consideration for the USDA Research Center be shifted to avoid the known burial site. In this way the known burial site would be excluded from the area under consideration for the USDA Research Center.

4.2 Significance Assigned

One historic property was located and documented during the preliminary reconnaissance of the USDA project area. The following significance evaluation is based on the criteria of the Hawai'i State and National Registers of Historic places (HRS 6E-10 and 6E-5.5), which defines five broad criteria for defining a cultural site as significant:

A. Site reflects major trends or events in the prehistory or history of the state or nation.

B. Site is associated with the lives of persons significant in our past.

C. Site is an excellent example of a site type.

D. Site has yielded or is likely to yield information important to prehistory or history.

E. Site has traditional cultural significance to an ethnic group.

Site 50-10-35-22080 is significant under Criterion D, for its information content regarding Traditional Hawaiian mortuary practices, and Criterion E, for its cultural significance to Native Hawaiians.

4.3 Recommendations from Archaeological Inventory Survey Report

It was recommended that the single significant site in the project area be preserved in perpetuity through the establishment of a burial preserve area. This burial preserve area should include the entire lava sink feature that makes up Site 50-10-35-22080 as well as a buffer that measures at least 50' from the rim of the sink. The boundaries of this preserve area should be recorded by land surveyors and placed on all project area maps. No construction, grading, or other land alteration should take place within this preserve area. A preservation plan for site 50-10-35-22080 should be written and approved.

Because no other historic properties are located within the project area, development of the parcel will have no adverse affect on significant historic properties once the burial preserve area is established and maintained.

A meeting was held on July 27, 2000 to discuss the treatment of burial site 50-10-35-22080 and the Section 106 Historic Preservation consultation process for the USDA Research Center

project. At the meeting, among others, were representatives from U. H. Hilo (the landowner), SHPD (Mr. Kala'au Wahilani (Burials Program) and Mr. Marc Smith (Archaeology Branch), a representative of the Hawai'i Island Burial Council, a representative of SSFM International, Inc., and representatives of the USDA. In discussion regarding the treatment of the burial site Mr. Wahilani detailed the steps that would be required of U. H. Hilo to establish the burial preserve area. He confirmed the need for a 50' buffer area, measured from the sink edge, around the sink feature. This area was to be preserved in-place in perpetuity, and delineated with appropriate Native Hawaiian vegetation. There is to be no public access to the site. Mr. Wahilani said the burial preserve area, including the buffer zone, should be recorded with the State Bureau of Conveyance as a preserve dedicated permanently for protection of the site.

A second important point of discussion at the July 27th meeting involved the change in the project area under consideration by U. H. Hilo and the USDA for the construction of the USDA Research Center. The prior project area under consideration by USDA, the area described in this document, had constraints due to considerable slopes and County easements that crossed through the area. The new project area includes some of the old project area, along with lands to the west of the original project area. The approximately 30-acre new project area is flatter and should be free of these County easement and slope constraints. This change in the project area under consideration by USDA excluded the known burial site (50-10-35-22080) from the project area.

4.4 Results of 2011 Field Check

Given the passage of more than a decade from initial documentation it seemed advisable to determine whether the femur was still present. On September 6,2011 the sink was relocated using the 2000 report figures (aerial, U.S. Geological Survey quad map) with relative ease. Some old white and orange flagging tape is still present along the southeast end of the sink, presumably from the 2000 survey. The presence of the cache of cans at Opening 3 confirmed that we had identified the correct sink.

The bone could not be seen from outside of Opening 1, so a Cultural Surveys archaeologist crawled inside to confirm its presence. It was noted that a concentration of rocks (visible from outside the opening) lies approximately 50 cm (1½ feet) north of the bone—it was unclear if these were the rocks depicted on the field map, in which case they are shown a bit too close to the bone. The bone is located up against the overhang wall as depicted (see Figure 5). It remains in the same state as described in the 2000 report (p23).

The description and map of the sink as they appear in the 2000 report are accurate. There is a lot of moss growth in the sink, to the point that the logs shown falling across Opening 1 on the map are almost indistinguishable from the boulder material in the sink. It seems quite feasible to block off the portion of the overhang containing the bone.

Some general photos were taken of the sink and the openings (including Opening 1), but the bone itself was not photographed. Due to the thick growth of strawberry guava around much of the sink, it was not possible to take a GPS point directly over Opening 1. A small clearing along the northern end of the sink allowed for some satellite reception, so a point was taken there, with highest accuracy achieved at about ± 7 meters (using a Garmin GPSMap 60CSX). We noted sounds of construction close by, in the area shown on the aerial photo just north of the HECO

electrical facility. This construction appears to be less than 75 m to the north, or in fairly close proximity to Site 22080.

The majority of parcel :170 is undeveloped and heavily vegetated, primarily with strawberry guava and *uluhe* fern. It appears that the majority of this project area remains in its natural state (i.e., not bulldozed). In the small area we passed through to find the sink, we crossed several depressions/sinks with openings, natural channels, etc., so it is likely that a number of similar features are present throughout the eastern portion of the parcel that could be used to house the bone (though we did not seek to identify a specific site for this purpose).

Section 5 Proposed Burial Treatment

The preferred option of the Department of Accounting and General Services is preservation in place (passive preservation) if a buffer zone and any other measures can be agreed to as would allow for the construction of an Access Driveway along the southern portion of TMK: [3] 2-4-001:170 to the proposed Information and Communications Services Division Waiakea Radio Site and Tower project in the SE corner of TMK: [3] 2-4-001:170 (see Figure 8)

5.1 Proposed Buffer Zone

A buffer zone of 50 feet in radius from the SIHP # 50-10-35-22080 sink is suggested (see Figure 8). This is consistent with prior discussions held with the SHPD and a HIBC member in 2000.

5.2 Short Term Measures

A continuous line of orange web "event fencing" would be erected at a distance of 50 feet south and southeast of the sink designated as SIHP # 50-10-35-22080 prior to the construction of the Access Driveway along the southern portion of TMK: [3] 2-4-001:170 to the proposed Information and Communications Services Division Waiakea Radio Site and Tower project in the SE corner of TMK: [3] 2-4-001:170. This temporary barrier would ensure that there would be no inadvertent damage to this historic property during access driveway and facility construction. This barrier would be in place prior to access driveway and facility construction and would remain in place until construction is completed. The SHPD would be notified in writing of the erection of this interim construction barrier.

5.3 Long Term Measures

The buffer zone and burial site location would be recorder at the Bureau of Conveyances. No landscaping is proposed but rather the site would be left in a natural state. No hardscape improvements would be allowed within the burial preserve without the written permission of the landowner, SHPD and HIBC. No signage is proposed. It is believed that there is no need for formal trash management at this isolated site. Access by any to-be-recognized cultural or lineal descendants would be handled on an ad hoc basis by the landowner.

5.3.1 Fencing to Be Constructed

In consultation with the Hawai'i Island Burial Council and the State Historic Preservation Division it is proposed that an approximately 150-foot long, six foot high, chainlink fence be erected on the *mauka* (north) side of the access driveway to the proposed Information and Communications Services Division Waiakea Radio Site and Tower facility. This proposed fence would connect directly with the facilities perimeter fencing on the southwest end and be free-standing on the northeast end at a distance of 100-feet from the burial (see Figure 6).

5.3.2 No Barrier Wall to Be Constructed at Ledge

In consultation with the Hawai'i Island Burial Council and the State Historic Preservation Division consideration was given to construction of a barrier wall to block off the burial area.

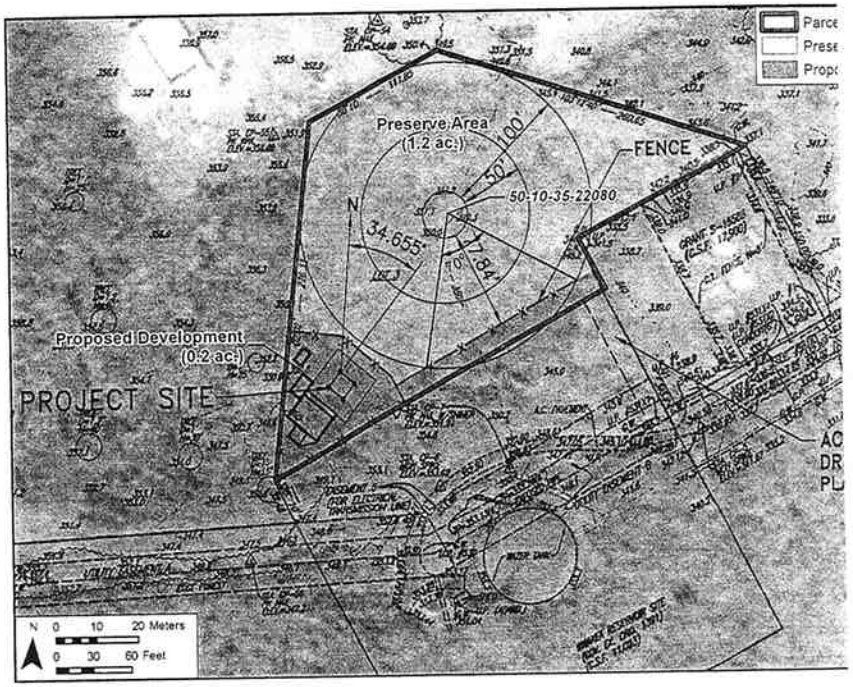

Figure 6. Plan for an Access Driveway along the southern portion of TMK: [3] 2-4-001:170 to the proposed Ir Communications Services Division Waiakea Radio Site and Tower project in the SE corner of TMK relation to the burial site (with 50' and 100' radii shown)

Section 6 Consultation

Legal Notices regarding this burial were published in the August 2011 *Ka Wai Ola O OHA*, August 12, 20 and 21, 2011 *Star Advertiser* and August 20, 21, & 24 *Hawaii Tribune Herald* (see Appendix B).

An e-mail was sent to Mr. Analu Josephides of the SHPD on 7/13/2011 asserting "We would be thankful for any guidance to facilitate a good-faith effort at reaching out to possible lineal and/or cultural descendants." No guidance other than review of the proposed burial ad was received.

We are aware that a Mr. Puna Lerma called the SHPD to discuss his concern about the burial being from a nearby *heiau* area. We are aware that the SHPD has mailed him an agenda of the HIBC Sept. 22 meeting. He was sent a copy of an initial draft plan.

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1995 Data Recovery Excavations for Sites 50-10-35-19431, 19432, 19433, and 19434, Land of Waiākea, South Hilo District, Island of Hawai'i [TMK: 2-4-57:01]. Prepared for Roy Takemoto, Ms. on file at the State Historic Preservation Division, Kapolei, Hawaii.

Thrum, Thos., G.
1907 "Heiau and heiau sites throughout the Hawaiian Islands. Hawaii Almanac and Annual for 1908.

1908 Hawaii Almanac and Annual for 1909, Honolulu: [n.p.]

Appendix A SHPD Acceptance Letter for Archaeological Inventory Survey

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
GARY E. CAMILO
LINNEL NISHIOKA

COPY

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

October 4, 2000

LOG NO: 26293
DOC NO: 0010RC03

Ronald Sato, Project Planner
SSFM International, Inc.
501 Summer Street, Suite 502
Honolulu, Hawaii 96817

Mr. Ronald Sato:

SUBJECT: Review of Archaeological Inventory Survey for USDA Pacific Basin Agricultural Research Center
Waiakea, South Hilo, Hawaii
TMK: 2-4-01: por. 122

This letter reviews this survey report which was submitted August 8, 2000 (Bush et al. 2000. Archaeological Inventory Survey of an Approximately 20-Acre Parcel Proposed for the USDA Pacific Basin Agricultural Research Center ... Cultural Surveys Hawaii ms.).

We believe that the survey adequately covered the project area, finding one historic site (22,080). The background section adequately covers the settlement context for the project area, indicating the low likelihood for pre-European contact habitation and farming sites and the low likelihood of late 1800s sugarcane sites. The one site found is acceptably described and interpreted. This site is a lava sinkhole with rockshelter overhangs and a human femur under one overhang. It is argued that this femur was likely intentionally placed in the overhang by native Hawaiians in pre-European contact or early 1800s times, making the probable ethnicity Hawaiian. We agree with this conclusion.

We also agree with the significance evaluation for this site, significant for its information content and culturally significant to native Hawaiians.

The report indicates that it was agreed with our Burials Program to preserve this site, and that details of the preservation plan were agreed to.

In sum, the report is acceptable. As long as the burial site is avoided, we have no objections to any land alteration in this project area. We understand that the Research Center has been moved to include some adjacent lands, and that archaeological survey will be done of the additional lands.

We look forward to the survey findings before concluding Section 106 compliance review for this project.

Aloha,

SGN HIBBARD, Administrator
State Historic Preservation Division

RC:an

c: Dr. H. Hammatt, Cultural Surveys Hawaii
SHPD Burials Program
Chair, Hawaii Island Burial Council

Appendix B Public Notices

OLAHA LEHULEHU
PUBLIC NOTICES
'aukake 2011 29

BURIAL NOTICE

Waiākea Ahupua'a

NOTICE TO INTERESTED PARTIES IS HEREBY GIVEN that a historic property (SIHP # 50-10-35-22080) containing a single human femur bone understood as a probable burial was discovered by Cultural Surveys Hawai'i, Inc. in a lava sink feature during the course of an archaeological inventory survey related to the proposed development of undeveloped land west of Komohana St. and north of Puainako St. within the *ahupua'a* of Waiākea, District of South Hilo, Island of Hawai'i TMK: [3] 2-4-001:170.

The project proponent is the State of Hawai'i Department of Accounting and General Services contact: Ernst Lau, Public Works Administrator, 1151 Punchbowl Street, P.O. Box 119, Honolulu, Hawai'i 96810; phone: 808-586-0476.

Background research indicates that during the *Māhele* these lands (along with the rest of the *ahupua'a* of Waiākea) were awarded to Victoria Kamāmalu (LCA 7713:16). No *kuleana* (*maka'āinana* Land Commission Awards) are known in the immediate vicinity.

Following the procedures of Hawai'i Revised Statutes (HRS) Chapter 6E-43, and Hawai'i Administrative Rules (HAR) Chapter 13-300, the probable burial is believed to be over 50 years old. The project proponent would prefer to preserve the probable burial in place; however, the decision to preserve in place or relocate these previously identified probable burials shall be made by the Hawai'i Island Burial Council and SHPD in consultation with any recognized lineal and/or cultural descendants, per the requirements of HAR Chapter 13-300-33. The probable burial's proper treatment shall occur in accordance with HAR Chapter 13-300-38 or 13-300-39.

SHPD is requesting persons having any knowledge of the identity or history of this probable burial to immediately contact Mr. Analu Josephides at SHPD, located at P.O. Box 2972, Kailua-Kona, Hawai'i 96745, phone: (808) 327-4959 or fax (808) 933-7655, to provide information regarding appropriate treatment. All interested parties should respond within thirty days of this notice and file descendancy claim forms and/or provide information to SHPD adequately demonstrating lineal descent from this specific probable burial or cultural descent from ancestors buried in the vicinity of this survey area.

CULTURAL IMPACT ASSESSMENT NOTICES

Honokōhau Ahupua'a

Information requested by Helen Wong Smith of cultural activities in Honokōhau Ahupua'a, North Kona, Hawai'i, [TMK (3) 7-4-08 Por. 13 & 30]; area between Queen Ka'ahumanu and Māmalahoa Highways, between Hinalani Street and Kealakehe Parkway. Please respond within 30 days to smith@hawaii.edu or (808) 987-4854.

Pūlehunui Ahupua'a

Information requested by SCS of cultural resources or ongoing cultural activities on or near a land parcel in Pu'unene, Pūlehunui Ahupua'a, Wailuku District, Maui Island, Hawai'i [TMK: (2) 3-8-008:019]. Please respond within 30 days to SCS at (808) 597-1182.

Draft Consultation Protocol for Iwi Kupuna Discovery During the Archaeological Inventory Survey for the Honolulu High-Capacity Transit Corridor Project

As required by the Section 106 Programmatic Agreement for the Honolulu High-Capacity Transit Corridor Project, the Honolulu Authority for Rapid Transportation has completed a draft protocol for consultation regarding treatment of any iwi kupuna identified during the archaeological inventory survey. This document has been posted on the Honolulu Rail Transit Project website, www.HonoluluTransit.org. All comments received by September 20, 2011, will be considered prior to the document being finalized and submitted for approval by the Federal Transit Administration. ■

Public Notice **Public Notice** **Public Notice**

NOTICE TO INTERESTED PARTIES IS HEREBY GIVEN that a historic property (SIHP # 50-10-35-22080) containing a single human femur bone understood as a probable burial was discovered by Cultural Surveys Hawai'i, Inc. in a lava sink feature during the course of an archaeological inventory survey related to the proposed development of undeveloped land west of Komohana St. and north of Puainako St. within the ahupua'a of Waiakea, District of South Hilo, Island of Hawai'i TMK: [3] 2-4-001:170.

The project proponent is the State of Hawai'i Department of Accounting and General Services contact: Ernest Lau, Public Works Administrator, 1151 Punchbowl Street, P.O. Box 119, Honolulu, Hawaii 96810; telephone: 808-586-0476.

Background research indicates that during the Mahele these lands (along with the rest of the ahupua'a of Waiakea) were awarded to Victoria Kamamalu (LCA 7713:16). No kuleana (maka'ainana Land Commission Awards) are known in the immediate vicinity.

Following the procedures of Hawai'i Revised Statutes (HRS) Chapter 6E-43, and Hawai'i Administrative Rules (HAR) Chapter 13-300, the probable burial is believed to be over 50 years old. The project proponent would prefer to preserve the probable burial in place; however, the decision to preserve in place or relocate these previously identified probable burials shall be made by the Hawai'i Island Burial Council and SHPD in consultation with any recognized lineal and/or cultural descendants, per the requirements of HAR Chapter 13-300-33. The probable burial's proper treatment shall occur in accordance with HAR Chapter 13-300-38 or 13-300-39.

SHPD is requesting persons having any knowledge of the identity or history of this probable burial to immediately contact SHPD, located at 40 Po'okela St., Hilo, Hawaii 96720, [TEL: (808) 933-7650 / FAX (808) 933-7655] or SHPD O'ahu located at Kakuhihewa Building, 601 Kamokila Blvd, Kapolei HI 96706 [TEL (808) 692-8015/FAX (808) 692-8020] to provide information regarding appropriate treatment. All interested parties should respond within thirty days of this notice and file descendancy claim forms and/or provide information to SHPD adequately demonstrating lineal descent from this specific probable burial or cultural descent from ancestors buried in the vicinity of this survey area.
(SA338685 8/17, 8/20, 8/21/11)

NOTICE TO INTERESTED PARTIES IS HEREBY GIVEN that a historic property (SIHP # 50-10-35-22080) containing a single human femur bone understood as a probable burial was discovered by Cultural Surveys Hawai'i, Inc. in a lava sink feature during the course of an archaeological inventory survey related to the proposed development of undeveloped land west of Komohana St. and north of Puainako St. within the *ahupua'a* of Waiākea, District of South Hilo, Island of Hawai'i TMK: [3] 2-4-001:170.

The project proponent is the State of Hawai'i Department of Accounting and General Services contact: Ernest Lau, Public Works Administrator, 1151 Punchbowl Street, P.O. Box 119, Honolulu, Hawaii 96810; telephone: 808-586-0476.

Background research indicates that during the *Māhele* these lands (along with the rest of the ahupua'a of Waiākea) were awarded to Victoria Kamamalu (LCA 7713:16). No *kuleana* (*maka'āinana* Land Commission Awards) are known in the immediate vicinity.

Following the procedures of Hawai'i Revised Statutes (HRS) Chapter 6E-43, and Hawai'i Administrative Rules (HAR) Chapter 13-300, the probable burial is believed to be over 50 years old. The project proponent would prefer to preserve the probable burial in place; however, the decision to preserve in place or relocate these previously identified probable burials shall be made by the Hawai'i Island Burial Council and SHPD in consultation with any recognized lineal and/or cultural descendants, per the requirements of HAR Chapter 13-300-33. The probable burial's proper treatment shall occur in accordance with HAR Chapter 13-300-38 or 13-300-39.

SHPD is requesting persons having any knowledge of the identity or history of this probable burial to immediately contact SHPD, located at 40 Po'okela St., Hilo HI 96720, [TEL (808) 933-7650 / FAX (808) 933-7655] or SHPD O'ahu located at Kakuhihewa Building, 601 Kamokila Blvd, Kapolei HI 96706 [TEL (808) 692-8015 / FAX (808) 692-8020] to provide information regarding appropriate treatment. All interested parties should respond within thirty days of this notice and file descendancy claim forms and/or provide information to SHPD adequately demonstrating lineal descent from this specific probable burial or cultural descent from ancestors buried in the vicinity of this survey area.

(36099r1 Hawaii Tribune-Herald: August 20, 21, 24, 2011)

Appendix C Consultation Letter Sent to Mr. Puna Lerma

CULTURAL SURVEYS HAWAI'I
ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL DOCUMENTATION SERVICES - SINCE 1982

O'ahu Island
P.O. Box 1114
Kailua, Hawai'i 96734
Ph: (808) 262-9972
Fax: (808) 262-4950

Maui Island
1993 Main Street
Wailuku, Hawai'i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Branch Offices
Hilo, Hawai'i
Kona, Hawai'i
Lāwai, Kaua'i

November 8, 2011

Mr. Puna Lerma
C/O P.O.Box 488,
Pāpa'ikou, HI 96781.
Tel. 381-2959

Subject: Consultation Regarding a Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waīkea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170

Aloha Mr. Puna Lerma:

Mahalo for your consideration of our draft Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave, Waīkea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170 at the September HIBC meeting. We presented the matter again at the Thursday, October 20th. HIBC meeting, the council members present voted 6 to 2 in favor to approve preservation in place, however, they and the SHPD asked that we seek your *mana'o* regarding appropriate treatment of this Waīkea *iwi kupuna*.

We seek your *mana'o* on four related matters: 1) the buffer zone, 2) a possible protective fence separating the burial preserve from a proposed driveway on the *makai* side, 3) sealing off of the cave, 4) ensuring access for cultural descendants.

1) **Buffer Zone**

We propose to provide a proper buffer zone for the collapsed lava tube containing the *iwi* (one human femur bone) and still allow for the construction of a Department of Accounting and General Services (DAGS) Information and Communications Services Division Waiakea Radio Site and Tower project and an Access Driveway. Attached please find a Figure (Figure 1) showing the presently proposed 1.2 acre preserve for the *iwi*.

The proposed 1.2 acre preserve for this *iwi* would be 100 or more feet in radius most of the way around the site (289° of arc). The proposed preserve would be 80 feet or more in radius on the southeast side. The proposed tower project would be more than 100 feet away from the *iwi*.

We seek your in-put on whether you believe the proposed buffer zone is acceptable.

2) **A Protective Fence on the *Makai* Side of the Buffer Zone ?**

If appropriate, DAGS would see to the construction of a protective chain-link fence along the *makai* side of the proposed burial preserve (along the *mauka* side of the proposed Waiakea Radio Site access road) (see attached Figure 1). The purpose of this fence would be to decrease the chance of any inadvertent disturbance by machinery or pedestrians to the *iwi*. The fence would be free-standing and could be open at one or both of the ends (on the southwest side where it connects to the proposed development fence or on the east side where the proposed driveway would turn to the south) so as not to impede access of any appropriate parties if desired.

We seek your in-put on whether you would favor such a fence–and if so whether you would prefer any openings.

3) Sealing Off of the Cave ?

If appropriate, DAGS would see to the sealing off of the low overhang in which the *iwi* lies. This would involve the construction of a low rock wall of locally available stone across the opening to the ledge (please see Figure 2). Such a protective wall could be: A) dry-stacked, or B) be constructed using mortar, or C) be constructed using mortar and re-inforcing steel re-bar.

We seek your in-put on whether you would favor such sealing off of the ledge containing the *iwi*, and, if so, if you would prefer that such a protective wall could be: A) dry-stacked with locally available stone, or B) be constructed using mortar and locally available stone, or C) be constructed using mortar and re-inforcing steel re-bar and locally available stone.

4) Access to this *iwi kupuna* for Cultural Descendants?

Perhaps the simplest way to ensure access to this *iwi kupuna* for any recognized lineal descendants would be for DAGS to provide a contact person and telephone # and request that the descendants be so kind as to let them know so that arrangements can be made to access the *iwi kupuna*.

Do you have any particular concerns for access to this *iwi kupuna* for you and your family? Would the proposed telephone notification to DAGS be acceptable?

We would like to be able to present your views to the Hawaii Island Burial Council by their November meeting. Thus we seek your response at your earliest convenience–in the next week if possible.

Mahalo for your continuing involvement in gaining resolution of this matter.

Aloha.

David W. Shideler,
Cultural Surveys Hawaii

cc. Mr. Kimo Lee, Hawaii Island Burial Council Chair
Dr. Pua Aiu, State Historic Preservation Division
Mr. Daniel Jandoc, DAGS

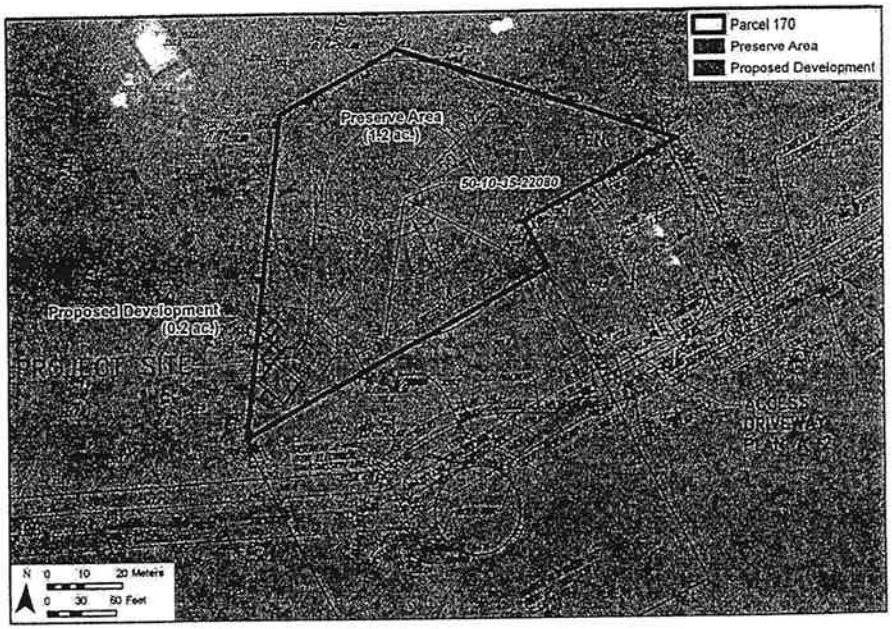

Figure 1. Proposed SIHP # 50-10-35-22080 burial preserve

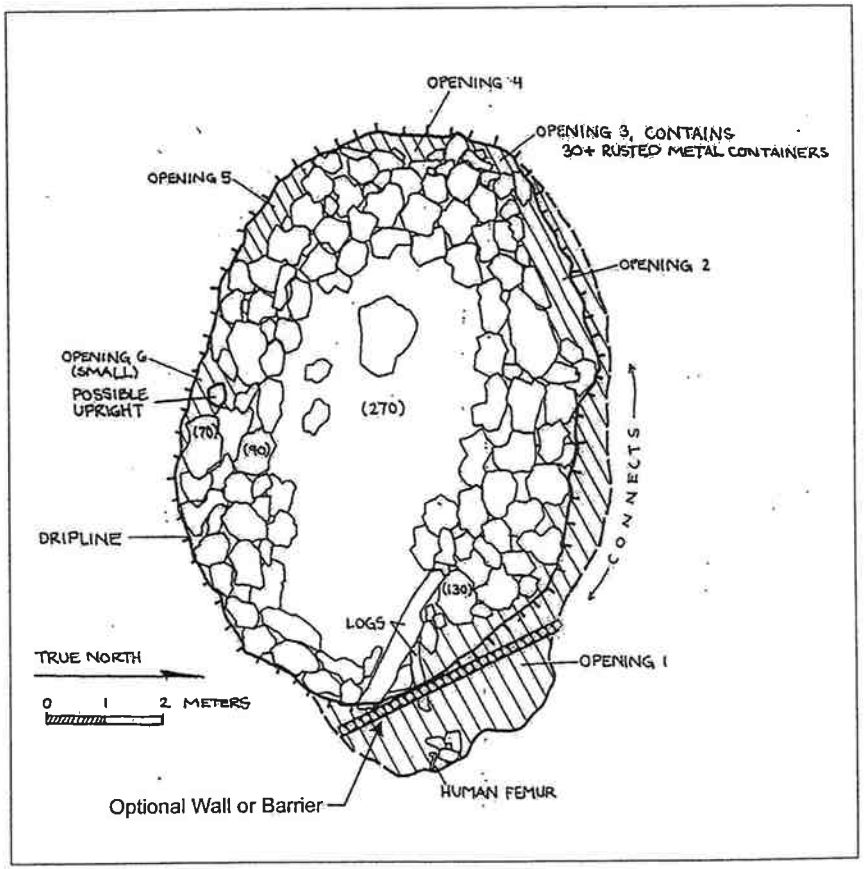

Figure 2. Optional wall or burial for the SIHP # 50-10-35-22080 burial preserve

APPENDIX B

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF:

December 21, 2011

(7734.30)
12/23/11

Regulatory Branch

File Number POH-2011-00305 cc: DAGS/em

Wilson Okamoto Corporation
Attention: John L. Sakaguchi
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

NO PERMIT REQUIRED

Dear Mr. Sakaguchi:

We have received your letter dated November 4, 2011 requesting Department of the Army (DA) review and comment on the proposed installation of the Anuenue Radio Sites and Towers at TMK (3) 2-4-001:170, Waiakea, Hilo, Hawaii Island, Hawaii. We have assigned this project the reference number **POH-2011-00305**. Please cite this reference number in any future correspondence concerning this project.

We have completed our review of the submitted document pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). For your information, Section 10 requires that a DA permit be obtained from the U.S. Army Corps of Engineers (Corps) prior to undertaking any construction, dredging, or other activity occurring in, over, or under or affecting navigable waters of the U.S. For tidal waters, the shoreward limit of the Corps' jurisdiction extends to the Mean High Water Mark. Section 404 requires that a DA permit be obtained for the discharge (placement) of dredged and/or fill material into waters of the U.S., including wetlands. For tidally influenced waters, in the absence of adjacent wetlands, the shoreward limit of the Corps' jurisdiction extends to the High Tide Line, which in Hawai'i may be approximated by reference to the Mean Higher High Water Mark. For non-tidal waters, the lateral limits of the Corps' jurisdiction extend to the Ordinary High Water Mark or the approved delineated boundary of any adjacent wetlands.

Based on the information you submitted, it appears the project sites consist entirely of uplands and is absent of waters of the U.S. under the regulatory jurisdiction of the Corps. We anticipate the proposed **tower installation and facility construction will not involve the discharge of fill material into waters of the U.S. therefore, a DA permit will not be required.** This determination does not relieve you of the responsibility to obtain any other permits, licenses, or approvals that may be required under County, State, or Federal law for your proposed work.

Thank you for contacting us regarding this project and providing us with the opportunity to comment. Should you have any questions, please contact Ms. Jessie Pa'ahana via e-mail at *Jessie.K.Paahana@usace.army.mil*. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at *http://per2.nwp.usace.army.mil/survey.html*.

Sincerely,

for George P. Young, P.E.
Chief, Regulatory Branch

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

MAR 22 2012

PM-3093.2

Mr. George Young
Chief
Regulatory Branch
Engineer District Honolulu
U.S. Department of the Army
Building 230
Fort Shafter, Hawai'i 96858-5440

Dear Mr. Young:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your December 21, 2011 comment letter (File Number POH-2011-00305) regarding the proposed State of Hawai'i Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will note that the project site is located entirely within upland lands and not near waters of the United States (U.S.) under the regulatory jurisdiction of the U.S. Army Corps. Engineers (Corps). Further, construction of the facility and tower will not involve the discharge of fill material into waters of the U.S. therefore, a Department of the Army (DA) permit will not be required.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

7739-30

11/19/11

CC: DAGS PANA em

John Sakaguchi

From: Wilson Okamoto Corporation
Sent: Tuesday, November 15, 2011 1:43 PM
To: John Sakaguchi
Subject: FW: U.S. Fish and Wildlife Service Response to DAGS JOB No. 11-10-0479 (DEA for Waiakea Anuenue Radio Sites and Towers)
Categories: Filed by Newforma

From: Michelle_Bogardus@fws.gov [mailto:Michelle_Bogardus@fws.gov]
Sent: Tuesday, November 15, 2011 12:51 PM
To: Wilson Okamoto Corporation
Subject: U.S. Fish and Wildlife Service Response to DAGS JOB No. 11-10-0479 (DEA for Waiakea Anuenue Radio Sites and Towers)

Hello Mr. John Sakaguchi,

This email is in response to your request for comments on the draft Environmental Assessment for the State of Hawaii Department of Accounting and General Services (DAGS) Information and Communications Services Division - Anuenue Radio Sites and Towers, Waiakea Site (DAGS Job No. 11-10-0479). We received your letter on November 08, 2011, and understand the project involves the placement of a 110-foot tower and supporting infrastructure on a 1.2 acre parcel near Hilo, Hawaii. Based on the information you provided us, as well as information in our files, we have determined the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) and Hawaiian hawk (*Buteo solitarius*) may use the trees on the project site for roosting and nesting. Additionally, the endangered Hawaiian petrel (*Pterodroma sandwichensis,* seabird) may fly over the site when transiting between the ocean and mountainous breeding sites.

To avoid and minimize potential project impacts to federally listed species, we recommend that you incorporate the following conservation measures into the proposed project:

Hawaiian hoary bats roost in exotic and native woody vegetation at heights greater than 15 feet. If trees or shrubs suitable for bat roosting are cleared during the bat breeding season, there is a risk that breeding bats could inadvertently be harmed or killed. Young bats, which are incapable of flight, are particularly vulnerable during the bat-birthing and pup-rearing season (June 1 through September 15). We recommend woody plants greater than 15 feet tall are not removed or trimmed between June 1 and September 15 throughout the development and ongoing operation of the proposed project.

Seabirds may traverse the project area at night during the breeding season (February 1 through December 15). Outdoor lighting at this project site could result in seabird disorientation, fallout, injury, or mortality. Seabirds are attracted to lights and may collide with nearby wires, buildings, or other structures, or they may land on the ground due to exhaustion. Downed seabirds are then subject to increased mortality due to collision with automobiles, starvation, or predation by dogs and cats among other predators. Young birds (fledglings) traversing the project area are particularly vulnerable during their initial flights from mountain nesting sites to the sea between September 15 and December 15. To minimize potential project impacts to seabirds during their breeding season, all outdoor lights should be fully shielded so the bulb can

only be seen from below bulb height and only used when necessary. Nighttime construction should be avoided during the seabird fledging period of September 15 through December 15. If a light is required for the 110-foot tower, we recommend that the light be a flashing red light, rather than a solid red or white light. The use of flashing red lights has been known to reduce seabird attraction. Additionally, the use of guy-wires poses a collision risk to flying seabirds and we recommend not using any guy-wires for the tower.

The endangered Hawaiian hawk (*Buteo solitarius*) may be present within the project area. To avoid impacts to Hawaiian hawks we recommend against clearing any brush or trees during their breeding season of March through September. If you are unable to avoid clearing vegetation during these months, we recommend you conduct surveys for nests prior to any clearing activity. Please contact our office for survey methodology and further recommendations to avoid impacting Hawaiian hawk nests.

We appreciate the opportunity to provide comments on this project. Please feel free to email me back with questions. The Service consultation number for this project is 2012-TA-0070.

Michelle Bogardus

Michelle D. Bogardus
Fish and Wildlife Biologist
Consultation and Habitat Conservation Program
Pacific Islands Fish and Wildlife Office
U.S. Fish and Wildlife Service
300 Ala Moana Blvd. Room 3-122, Box 50088
Honolulu, Hawaii 96850
ph: (808) 792-9473
fax: (808) 792-9580
web page: http://www.fws.gov/pacificislands/

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3096.2

Ms. Michelle D. Bogardus
U.S. Fish and Wildlife Biologist
Consultation and Habitat Conservation Program
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Suite 3108
Honolulu, Hawai'i 96850

Dear Ms. Bogardus:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

This responds to your November 15, 2011 e-mail sent to Mr. John Sakaguchi at the Wilson Okamoto Corporation, our consultant for this project.

The Draft Environmental Assessment (EA) will include that the endangered Hawaiian hoary bat *(Lasiurus cinereus semotus)* and Hawaiian hawk *(Buteo solitarius)* may use the trees on the project site for roosting and nesting. Additionally, the endangered Hawaiian petrel *(Pterodroma sandwichensis,* seabird) may fly over the project site when transiting between the ocean and mountainous breeding sites.

The conservation and mitigation measures set forth in your November 15th e-mail will be discussed in the Draft EA, and will be incorporated into the construction documents and contract.

The Draft EA will include that the Waiākea project site is located about 2.20 miles (11,500 feet) southwest of Runway 3 and 2.75 miles (14,500 feet) southwest of Runway 8 at the Hilo International Airport. Based on these considerations, the Department of Accounting and General Services (DAGS) will file a Form 7460-1, Notice of Proposed Construction or Alteration, with the U.S. Department of Transportation Federal Aviation Administration (FAA). Upon completion of their review, the FAA will issue a determination regarding whether or not the tower will have to include aircraft warning lighting or markings.

The Draft EA will note that the Waiākea project site is located adjacent to an existing high voltage transmission line which includes 60-70 feet high poles with 3 conductors near the top and cross arms also with 3 conductors. The Waiākea tower will be self supported with no guy wires.

To avoid impacts to Hawaiian hawks, DAGS will avoid clearing any brush or trees during their breeding season of March through September. If DAGS is unable to avoid clearing vegetation during these months, as recommended surveys will be conducted for nests prior to any clearing activity. DAGS will contact the U.S. Fish and Wildlife Service (USFWS) for survey methodology and further recommendations to avoid impacting Hawaiian hawk nests.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

(7739-30) JS

11/19/11

cc: DAGS

In reply, please refer to:
File:
EPO-11-233

November 9, 2011

RECEIVED
NOV 15 2011
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi, AICP, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street
Artesina Plaza, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation; Information and Communications Services Division – Anuenue Radio Sites and Towers; Waiakea Site, South Hilo District, Island of Hawaii; DAGS JOB No. 11-10-0479; TMK: 2-4-001:170

Thank you for allowing us to review and comment on the subject document. The document was routed to the various branches of the Environmental Health Administration. We have no comments at this time, but reserve the right to future comments. We strongly recommend that you review all of the Standard Comments on our website: www.hawaii.gov/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this application should be adhered to.

The same website also features a Healthy Community Design Smart Growth Checklist (Checklist). The Hawaii State Department of Health, Built Environment Working Group, recommends that State and county planning departments, developers, planners, engineers and other interested parties apply the healthy built environment principles in the Checklist whenever they plan or review new developments or redevelopments projects. We also ask you to share this list with others to increase community awareness on healthy community design.

If there are any questions about these comments please contact the Environmental Planning Office at 586-4337.

Sincerely,

Genevieve Salmonson

GENEVIEVE SALMONSON, Acting Manager
Environmental Planning Office

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3086.2

Ms. Genevieve Salmonson
Acting Manager
Environmental Planning Office
Department of Health
P. O. Box 3378
Honolulu, Hawai'i 96801-3378

Dear Ms. Salmonson:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your November 9, 2011 comment letter regarding the proposed State of Hawaii Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will include applicable discussions of air quality, noise, water quality, hazardous waste, and wastewater.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

NEIL ABERCROMBIE
GOVERNOR

(7734-30)
12/13/11

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

(FILE)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
STP 8.0665

cc: DAGS

December 8, 2011

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii 96826

RECEIVED
DEC 14 2011
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Anuenue Radio Sites and Towers at Waiakea
Pre-Assessment Consultation for Draft Environmental Assessment (DEA)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project. DOT understands the State Department of Accounting and General Services (DAGS) through its Information and Communication Service Division (ICSD) proposes to construct a Radio Site and Tower at Waiakea. The project consists of:

1. A self-supported 4-leg, 110-foot high tower with microwave dish antennas;
2. A 900-square foot by 12-foot high building; and
3. Other supporting facilities.

Access to the project will be via Komohana Street.

Given the project dimensions of the communication tower, DOT's airport (Hilo International Airport) and highways facilities (Kanoelehua Avenue and Puainako Street) may be impacted. DOT offers the following comments that need to be addressed in the project's DEA regarding the potential impacts:

1. Because of the proximity and height of the facility to the navigable airspaces for Hilo International Airport, DOT recommends that the applicant file Federal Aviation Administration (FAA) Form 7460-1: Notice of Proposed Construction or Alteration. This is the website for filing FAA Form 7460-1: https://www.oeaaa.faa.gov/oeaaa/external/portal.jsp.

2. The DAGS and ICSD should be informed that transporting the tower and other communication components over State highways facilities would require an oversized and overweight equipment/loads permit from DOT Highways Division, Hawaii District Office.

DOT appreciates the opportunity to provide comments and requests four copies of the DEA when it is available. If there are any questions, please contact Mr. Elton Teshima of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7978.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

MAR 22 2012

PM-3091.2

The Honorable Glenn Okimoto, Ph.D.
Director of Transportation
State of Hawai'i
869 Punchbowl Street
Honolulu, Hawai'i 96813-5097

Dear Dr. Okimoto:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your December 8, 2011 comment letter regarding the proposed State of Hawai'i Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will include that the Hilo International Airport is located northeast Waiākea project site. Runway 3 lies about 11,500 feet (2.2 miles) to the northeast of the project site and Runway 8 about 14,500 feet (2.75 miles) also to the northeast. At this time, DAGS will be filing Federal Aviation Administration (FAA) Form 7460-1: Notice of Proposed Construction or Alteration.

The Draft EA will include that, should oversize and overweight equipment or materials be transported over State highways facilities, a permit will be required from the Department of Transportation (DOT) Highways Division, Hawai'i District Office.

As requested, four copies of the Draft EA will be submitted to your office. We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 22, 2011

Wilson Okamoto Corporation
Attention: Mr. John Sakaguchi, AICP
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

via email: jsakaguchi@wilsonokamoto.com

Dear Mr. Sakaguchi:

SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for DAGS, ICSD – Anuenue Radio Sites and Towers - Waiakea Site, South Hilo District, Island of Hawaii; TMK: (3) 2-4-001:170

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from our Engineering Division on the subject matter. Should you have any questions, please feel free to call Darlene Nakamura at 587-0417. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 6, 2011

MEMORANDUM

'11 DEC 08 PM 2:24 ENGINEERING

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
✓ X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
X Land Division – Hawaii District
X Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for DAGS, ICSD – Anuenue Radio Sites and Towers
LOCATION: Waiakea Site, South Hilo District, Island of Hawaii; TMK: (3) 2-4-001:170
APPLICANT: Wilson Okamoto Corporation on behalf of DAGS

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by December 16, 2011 (the Consultant has granted an extension).

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Darlene Nakamura at 587-0417. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed: [signature]
Date: 12/13/11

cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/DarleneNakamura
Ref.: DEAPreAsessmentAnueneRadioSites&Tower
Hawaii.539

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

(X) **Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The Flood Insurance Program does not have any regulations for developments within Flood Zone X.**

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.
( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
( ) Ms. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

( ) Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: [signature]
CARTY S. CHANG, CHIEF ENGINEER
Date: 12/13/11

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3092.2

Mr. Russell Y. Tsuji
Land Administrator
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809

Attention: Ms. Darlene Nakamura

Dear Mr. Tsuji:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your December 22, 2011 comment letter regarding the proposed State of Hawai'i Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The Flood Insurance Program does not have any regulations for developments within Flood Zone X.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hiivak, DAGS
J. Sakaguchi, WOC

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

(7734-30)
WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
1/13/12
cc: DAGS

January 12, 2012

Wilson Okamoto Corporation
Attention: Mr. John Sakaguchi, AICP
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

via email: jsakaguchi@wilsonokamoto.com

Dear Mr. Sakaguchi:

SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for DAGS, ICSD – Anuenue Radio Sites and Towers - Waiakea Site, South Hilo District, Island of Hawaii; TMK: (3) 2-4-001:170

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments previously sent you on December 22, 2011, enclosed are comments from our Land Division – Hawaii District on the subject matter. Should you have any questions, please feel free to call Darlene Nakamura at 587-0417. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

2011 DEC -9 P 1:23

RECEIVED
LAND DIVISION
HILO, HAWAII

December 6, 2011

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
X Land Division – Hawaii District
X Historic Preservation

2011 DEC 30 A 11:10

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for DAGS, ICSD – Anuenue Radio Sites and Towers
LOCATION: Waiakea Site, South Hilo District, Island of Hawaii; TMK: (3) 2-4-001:170
APPLICANT: Wilson Okamoto Corporation on behalf of DAGS

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by December 16, 2011 (the Consultant has granted an extension).

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Darlene Nakamura at 587-0417. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed: [signature]
Date: 12.27.11

cc: Central Files

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
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) 974-6203
FAX: (808) 974-6222

December 27, 2010

MEMORANDUM

TO: Russell Y. Tsuji, Administrator

FROM: Kevin E. Moore, Hawaii District Land Agent KEM

SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for DAGS, ICSD – Anuenue Radio Sites and Towers

LOCATION: Waiakea, South Hilo, Hawaii, TMK: (3) 2-4-001:170
APPLICANT: Wilson Okamoto Corporation on behalf of DAGS

Pursuant to your request for comments on the above matter, we offer the following:

The subject land is currently under Executive Order No. 3814 to the University of Hawaii for university and allied purposes. The proposed use of the parcel as a radio and tower site for the Department of Accounting and General Services, Information and Communications Services Division, appears to be inconsistent with the purpose of the set-aside to UH. Accordingly, UH and DAGS should request the cancellation of the current executive order and the reset-aside of the land to DAGS for radio site and tower purposes. We further understand that the County of Hawaii Department of Water Supply may require access easements over the land, which will need to be documented. Land dispositions affecting the parcel will require the prior approval of the Board of Land and Natural Resources.

Please contact me should you have any questions.

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3095.2

Mr. Russell Y. Tsuji
Administrator
Land Division
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809

Dear Mr. Tsuji:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your January 12, 2012 comment letter regarding the proposed State of Hawai'i Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will note that the parcel is currently under Executive Order No. 3814 to the University of Hawai'i for university and allied purposes. Further, the Draft EA will also note that the University of Hawai'i at Hilo will have several communication facilities within the Waiākea facility.

The Draft EA will also state that the University of Hawai'i and DAGS should request the cancellation of the current executive order and the reset-aside of the land to DAGS for radio site and tower purposes and that the County of Hawai'i Department of Water Supply may require access easements over their lands. Land dispositions affecting the parcel will require the prior approval of the Board of Land and Natural Resources.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

NEIL ABERCROMBIE
GOVERNOR
STATE OF HAWAI'I

STATE OF HAWAI'I
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

(T139.30) JS
1/5/12
ALBERT "ALAPAKI" NAHALE-A
CHAIRMAN
HAWAIIAN HOME COMMISSION
MICHELLE K. KAUHANE
DEPUTY TO THE CHAIRMAN
M. WAIALEALE SARGENT
EXECUTIVE ASSISTANT
FILE
cc: DAGS) em

RECEIVED
DEC 30 2011
WILSON OKAMOTO CORPORATION

December 20, 2011

Mr. John Sakaguchi
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Aloha Mr. Sakaguchi:

Subject: DRAFT ENVIRONMENTAL ASSESSMENT, PRE-ASSESSMENT CONSULTATION, ANUENUE RADIO SITES AND TOWERS, WAIAKEA, SOUTH HILO, HAWAII, DAGS JOB 11-10-0479, TAX MAP NO. 2-4-001:170

Mahalo for the opportunity to review and provide comments on the subject matter. The Department of Hawaiian Home Lands has no comment to offer.

If you have any questions, please call our Planning Office at (808)620-9517.

Me ke aloha,

Albert "Alapaki" Nahale-a
Chairman
Department of Hawaiian Home Lands

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3094.2

The Honorable Albert "Alapaki" Nahale-a
Chairman
Department of Hawaiian Home Lands
91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

Dear Chairman Nahale-a:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your December 20, 2011 comment letter regarding the proposed State of Hawai'i Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will note that the Department of Hawaiian Home Lands had no comments.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

UNIVERSITY OF HAWAI'I
HILO

(7739-30)
12/12/11
JS
cc: DAGS/en

RECEIVED
DEC 08 2011
WILSON OKAMOTO CORPORATION

December 6, 2011

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
Attn: Mr. John L. Sakaguchi, AICP, Senior Planner

Subject: Draft Environmental Assessment, Pre-Assessment Consultation Information and Communications Services Division, Anuenue Radio Sites and Towers; Waiakea Site, South Hilo District, Island of Hawaii; DAGS JOB No. 11-10-0479; Tax Map Key: 2-4-001: 170 Request for Comment

Dear Mr. Sakaguchi:

This is in response to your letter dated November 4, 2011 and request for comments to the subject proposed communications tower as part of the pre-assessment consultation in preparation of a Draft Environmental Assessment.

Should the subject project proceed, the University of Hawaii at Hilo will be willing to cooperate in the transfer of the entire 1.2 acre parcel identified as Tax Map Key: 3rd/ 2-4-001: 170 to DAGS for their project and future management. However, such transfer will be subject to approval by the President and the Board of Regents of the University of Hawaii. Subject to such approval, the parcel may need to be transferred to the Department of Land and Natural Resources as a step prior to a transfer by DLNR to DAGS for the purposes of the subject radio tower.

Additionally, the University of Hawaii would need to provide an easement over the existing access road that is currently utilized by the County of Hawaii, Department of Water Supply as access to their water tank site and by HELCO for access to their existing substation site. The underlying land area was conveyed to the University of Hawaii subject to these easements and the University would need to issue an additional non-exclusive easement to DAGS for access to the new tower site.

Finally, the University of Hawaii at Hilo would like to register a request to be able to mount various dish antenna on the subject proposed tower for a communication link between its main campus and various remotes sites. Preliminary information on these dishes and

ADMINISTRATION *Administrative Affairs*
200 W. Kāwili St. Hilo, HI 96720-4091 • Phone: (808) 974-7750 • Fax: (808) 974-7542 • www.uhh.hawaii.edu
An Equal Opportunity/Affirmative Action Institution

associated ground equipment was provided to DAGS by way of a separate communication for their review. UH Hilo understands that provision for this request is subject to reasonable approval by DAGS of the specifications, location and other mounting considerations of such equipment.

Should you have any questions, please feel free to contact Harry Yada, Director of Real Property, at (808) 933-3267.

Sincerely,

Marcia Sakai
Interim Vice Chancellor Administrative Affairs

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3090.2

Ms. Marcia Sakai
Interim Vice Chancellor Administrative Affairs
University of Hawai'i - Hilo
State of Hawai'i
200 W. Kawili Street
Hilo, Hawai'i 96720

Attention: Mr. Harry Yada, Director of Real Property

Dear Mr. Sakai:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your December 6, 2011 comment letter regarding the proposed State of Hawai'i, Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will include that the University of Hawai'i at Hilo will be willing to cooperate in the transfer of the entire 1.2 acre parcel identified as Tax Map Key: 3rd/2-4-001: 170 to DAGS for their project and future management. However, such transfer will be subject to approval by the President and the Board of Regents of the University of Hawai'i.

The Draft EA will also state that, subject to such approval, the parcel may need to be transferred to the Department of Land and Natural Resources (DLNR) as a step prior to a transfer by DLNR to DAGS for the purposes of the subject radio tower. Additionally, the University of Hawai'i would need to provide an easement over the existing access road currently utilized by the County of Hawai'i, Department of Water Supply as access to their water tank site and by the Hawaiian Electric Company (HELCO) for access to their existing substation site. The underlying land area was conveyed to the University of Hawai'i subject to these easements and the University would need to issue an additional non-exclusive easement to DAGS for access to the new tower site.

Lastly, the Draft EA will note that the University of Hawai'i at Hilo would like to mount various dish antennas on the subject proposed tower for a communication link between its main campus and various remotes sites.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

PHONE (808) 594-1888

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

FAX (808) 594-1865

7739.30
12/22/11
cc: CSH/em

HRD11/5121B

December 12, 2011

John L. Sakaguchi, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawai'i 96826

DEC 20 2011

Re: Pre-Draft Environmental Assessment Consultation
Anuenue Radio Sites and Towers Project
Waiākea, hilo, Island of Hawai'i

Aloha e John L. Sakaguchi,

The Office of Hawaiian Affairs (OHA) is in receipt of your November 4, 2011 request for comments ahead of a draft environmental assessment (DEA) which will be prepared to support the Anuenue Radio Sites and Towers project (project) which is proposed by the State of Hawai'i-Department of Accounting and General Services, Information and Communication Services Division (DAGS) in Hilo on the Island of Hawai'i. Project activities will include the construction of a 110-foot high tower with antennas and a 900 square foot building to house support equipment on 9, 834 square feet of land situated within a larger 1.2 acre parcel (parcel) under the control of the University of Hawai'i. A diesel tank, utility connections and security fencing will also be installed. Upon completion, the project will contribute to the modernization of the shared State and federal communication system (system) which supports a variety of agencies involved in emergency and rescue operations, including State Civil Defense, United States Coast Guard (USCG) and others. OHA looks forward to seeing the project completed.

OHA would like to see the DEA provide additional information on the Native Hawaiian burial site (SIHP #50-10-35-22080) which has been identified on the parcel and the consultation with the Hawai'i Island Burial Council referenced in your letter. While we appreciate that current project plans provide a generous 80-100 foot buffer from the burial site, OHA would like understand what formal approvals have been issued by the Department of Land and Natural Resources-State Historic Preservation Division to ensure perpetual protection for the burial site.

The DEA should also describe whether there is a federal nexus to this project. OHA is aware that U.S. Coast Guard funding has supported similar system improvements at other locations in the State of Hawai'i.

We look forward to reviewing the DEA and providing additional comments at that time. Please send one electronic copy and one hardcopy of the DEA to OHA attn: Compliance Monitoring Program when it is available. Should you have any questions or concerns, please contact Keola Lindsey at 594-0244 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Chief Executive Officer

CWN:kl

C; OHA- East Hawai'i COC
Daniel Jandoc, DAGS

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3098.2

Mr. Richard Pezzulo
Interim Chief Executive Officer, Chief Operating Officer
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, Hawai'i 96813

Dear Mr. Pezzulo:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your December 12, 2011 comment letter regarding the proposed State of Hawai'i Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will note that the Office of Hawaiian Affairs (OHA) looks forward to seeing the project completed.

The Draft EA will include a brief history related to the project site, including information related to the June 2000 determination by State Historic Preservation Division (SHPD) representatives, a representative of the Hawai'i Island Burial Council, and others. Under the direction of the SHPD Burials Program representative, the site was considered a burial site, and was to be treated as an "inadvertent find." During the meeting, it was preliminarily determined that a preserve area should be created with a 50-foot buffer area around the rim of the burial sink.

The Draft EA will include that, on September 22, 2011, a presentation of the Burial Treatment Plan was made to the Hawai'i Island Burial Council at their monthly meeting. On October 20, 2011, a revision to the Burial Treatment Plan was presented to the Council which provided fencing along the boundary of the access driveway to minimize access to the burial site and/or sealing the burial within the sink. The Burial Council voted to approve the 50-foot buffer and preservation in-place for the burial.

This radio facility will be part of the 'Ānuenue radio system, which is a joint effort between the U.S. Coast Guard (USCG) and DAGS. The USCG will have space to place the shared use 'Ānuenue radio equipment in the Waiākea radio facility. The Coast Guard will fund the purchase and installation of portions of that 'Ānuenue equipment. Funding for construction of the Waiākea Radio facility will be provided by the State of Hawai'i. No Federal funds will be used for construction of the facility.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

William P. Kenoi
Mayor

William T. Takaba
Managing Director

7739-30
11/18/11
FILE

Dora Beck, P.E.
Acting Director

Hunter Bishop
Deputy Director

cc: DAGS

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 Aupuni Street • Hilo, Hawai'i 96720
(808) 961-8083 · Fax (808) 961-8086
http://co.hawaii.hi.us/directory/dir_envmng.htm

JS

November 14, 2011

RECEIVED
NOV 16 2011
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 So. Beretania Street
Artesian Plaza, Suite 400
Honolulu, HI 96826

Re: Draft EA, Pre-Assessment Consultation;
Information and Communications Services Division – Anuenue Radio Sites and Towers; Waiākea Site, South Hilo District, Island of Hawai'i
DAGS JOB No. 11-10-0479; TMK: 2-4-001:170
Request for Comment

Dear Mr. Sakaguchi,

We have no comments to offer on the subject project.

Thank you for allowing us the opportunity to review and comment on this project.

Sincerely,

Dora Beck
Dora Beck, P.E.
DIRECTOR

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

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3087.2

Ms. Dora Beck, PE
Director
Department of Environmental Management
County of Hawai'i
25 Aupuni Street
Hilo, Hawai'i 96720

Dear Ms. Beck:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your November 14, 2011 comment letter regarding the proposed State of Hawai'i, Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will note that the County of Hawai'i, Department of Environmental Management has no comments on the project.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

William P. Kenoi
Mayor

County of Hawai'i
POLICE DEPARTMENT
349 Kapiolani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-8865

Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

7734-30 JS
11/22/11

cc: DAGS

November 17, 2011

RECEIVED
NOV 21 2011
WILSON OKAMOTO CORPORATION

Mr. John Sakaguchi
AICP, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, HI 96826

Dear Mr. Sakaguchi:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT, DAGS JOB NO. 11-10-0479

Staff, upon reviewing the provided documents and visiting the proposed site, does not anticipate any significant impact to traffic and/or other public safety concerns.

Thank you for allowing us the opportunity to comment.

If there are any questions, please contact South Hilo Patrol Captain Robert Wagner at 961-2214.

Sincerely,

HENRY J. TAVARES, JR.
ASSISTANT POLICE CHIEF
AREA I OPERATIONS BUREAU

RW:lli
110743

"Hawai'i County is an Equal Opportunity Provider and Employer"

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3088.2

Chief Henry J. Tavares, Jr.
Assistant Chief of Police
Police Department
County of Hawai'i
349 Kapi'olani Street
Hilo, Hawai'i 96720

Attention: Captain Robert Wagner
South Hilo Patrol

Dear Chief Tavares, Jr.:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your November 17, 2011 comment letter regarding the proposed State of Hawaii Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will note that, upon reviewing the provided documents and visiting the proposed site, the County of Hawai'i Police Department staff does not anticipate any significant impact to traffic and/or other public safety concerns.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

William P. Kenoi
Mayor

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

County of Hawai'i
PLANNING DEPARTMENT

BJ Leithead Todd
Director

Margaret K. Masunaga
Deputy

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

1739-30
12/13/11
FILE

December 7, 2011

RECEIVED
DEC 09 2011
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi, AICP
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, HI 96826

Dear Mr. Sakaguchi:

SUBJECT: Pre-Consultation for Draft Environmental Assessment
Project: 'Ānuenue Radio Sites and Towers, Waiakea Site, DAGS
Job No. 11-10-0479
TMK: (3) 2-4-001:170; South Hilo, Hawai'i

Thank you for your letter dated November 4, 2011, requesting comments from this office regarding the preparation of a Draft Environmental Assessment (EA) for the subject project.

The State of Hawai'i Department of Accounting and General Services (DAGS) Information and Communications Services Division (ICSD) is proposing an 'Ānuenue Radio Site and Tower on the subject parcel. The proposed Radio Site and Tower will support the rebuilding and modernization of the ICSD-owned portion of the 'Ānuenue system, a shared State and Federal statewide communication system. The site will support the State Civil Defense, the State Department of Public Safety, and the U.S. Coast Guard radio systems. The site will also be designed to accommodate the public safety radio and microwave systems of the County of Hawai'i agencies should they decide to locate to the new facility.

We understand that this project had previously been planned for a site on Hāla'i Hill, but after discussions with community stakeholders, DAGS found the subject alternative location and is no longer considering the Hāla'i Hill site.

The subject parcel is zoned A-1a (Agricultural-1 acre minimum lot size) and is situated within the State Land Use Agricultural District. In addition, according to the County of Hawai'i General Plan 2005 (amended December 2006), the subject property is designated as University Use by the Land Use Pattern Allocation Guide. The subject area is not within the Special Management Area (SMA).

The project summary states that lands surrounding the project site have not been developed and contain predominantly alien vegetation cover, including 40 to 60 feet tall trees. Please note that the site may contain Albizia trees, which are known to fall over or lose branches in high winds. Therefore, please include in the Draft EA requirements for proper setbacks or other forms of mitigation to avoid safety hazards and/or structural damage from falling trees and branches.

The project summary also states that the site is considered a burial site. Please include the relevant archeological reports and mitigations measures in the Draft EA, including pertinent consultation with the Department of Land and Natural Resources State Historic Preservation Division.

According to Chapter 25 (Zoning) of the Hawai'i County Code, Section 25-4-12, a telecommunication antenna or tower may be permitted in the RS, RD, RM, RCX, RA, FA, A, IA, and O districts if a use permit is obtained for such use. In addition, according to Section 25-2-71, plan approval shall be required in all applicable districts prior to the construction or establishment of telecommunication antennas and towers, as permitted under section 25-4-12. Therefore the proposed 'Ānuenue Radio Sites and Towers will require a use permit and a plan approval and will also be subject to conditions of those approvals.

Please provide us with a copy of the Draft EA for our review.

If you have any questions or if you need further assistance, please feel free to contact Bethany Morrison of this office at 961-8138.

Sincerely,

BJ LEITHEAD TODD
Planning Director

BJM:cs
P:\wpwin60\Bethany\EA-EIS Review\preconsultdraftea Anuenue Radio Sites and Towers- Waiakea.doc

cc: Mr. Daniel Jandoc
State of Hawai'i
Department of Accounting and General Services
1151 Punchbowl Street, Room 430
Honolulu, Hawai'i 96813

Councilman Donald Ikeda
Hawaii County Council
25 Aupuni Street, Suite 209
Hilo, Hawaii 96720

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3097.2

Ms. Bobby Jean Leithead Todd
Director
Planning Department
County of Hawai'i
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

Dear Ms. Leithead Todd:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your December 7, 2011 comment letter regarding the proposed State of Hawai'i Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site project. The Draft Environmental Assessment (EA) will note that the project site is zoned A-1a (Agricultural-1 acre minimum lot size) and is situated within the State Land Use Agricultural District. In addition, according to the County of Hawai'i General Plan 2005 (amended December 2006), the project site is designated as University Use by the Land Use Pattern Allocation Guide and not within the Special Management Area (SMA).

The Draft EA will include the requirements for the proper setbacks or other forms of mitigation to avoid safety hazards and/or structural damage from falling trees and branches to adjacent parcels.

The Draft EA will include a recent history of the project site, including that it was at one time part of the lands considered by the U.S. Department of Agriculture for the Pacific Basin Agricultural Research Center and subsequent, preparation of a Burial Treatment Plan and submittal to the Hawai'i Island Burial Council.

The Draft EA will include that, according to Chapter 25 (Zoning) of the Hawai'i County Code, Section 25-4-12, a telecommunication antenna or tower may be permitted in the RS, RD, RM, RCX, RA, FA, A, la, and O districts if a use permit is obtained for such use.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

7739-30
11/31/11

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAÓ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

cc: DAGS

November 28, 2011

RECEIVED
NOV 29 2011
WILSON OKAMOTO CORPORATION

John L. Sakaguchi
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, HI 96826

PRE-ENVIRONMENTAL ASSESSMENT CONSULTATION
INFORMATION AND COMMUNICATIONS SERVICES DIVISION
'ĀNUENUE RADIO SITES AND TOWERS; WAIĀKEA SITE, SOUTH HILO DISTRICT
ISLAND OF HAWAI'I
TAX MAP KEY (3) 2-4-001:170

This is in response to your Pre-Environmental Assessment Consultation letter of November 4, 2011.

We have reviewed the subject application and have no objection as the proposed communications tower and related equipment will not require water service.

Should there be any questions, please contact Mr. Ryan Quitoriano of our Water Resources and Planning Branch at 961-8070, extension 256.

Sincerely yours,

Milton D. Pavao, P.E.
Manager-Chief Engineer

RQ:dfg

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

MAR 22 2012

PM-3089.2

Mr. Quirino Antonio, P.E.
Manager and Chief Engineer
Department of Water Supply
County of Hawai'i
345 Kekūanaō'a Street, Suite 20
Hilo, Hawai'i 96720

Attention: Mr. Ryan Quitoriano
Water Resources and Planning Branch

Dear Mr. Antonio:

Subject: Draft Environmental Assessment/Pre-Assessment Consultation
Information and Communications Services Division
'Ānuenue Radio Sites and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0479
Tax Map Key: 2-4-001:170

Thank you for your Department's November 28, 2011 comment letter regarding the proposed State of Hawaii, Department of Accounting and General Services (DAGS), Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site, project. The Draft Environmental Assessment (EA) will note that the County of Hawai'i, Department of Water Supply has no objection as the proposed communications tower and related equipment will not require water service.

We appreciate your participation in the EA review process.

Sincerely,

DEAN H. SEKI
Acting State Comptroller

c: D. DePonte, DAGS
R. Hlivak, DAGS
J. Sakaguchi, WOC

APPENDIX C

(No longer included)

APPENDIX D

Cultural Impact Assessment for DAGS/ICSD Ānuenue Radio Waiākea Site Project, Waiākea Ahupua'a, South Hilo District, Hawai'i Island

TMK: [3] 2-4-001:040 por., and 170 por.

Prepared for

Wilson Okamoto Corporation

Prepared by

Hallett H. Hammatt, Ph.D.

And

Emily Kandagawa, B.A.

Cultural Surveys Hawai'i, Inc.

Kailua, Hawai'i

(Job Code: WAIAKEA 7)

February 2012

The complete Cultural Impact Assessment report will be filed with the Department of Land and Natural Resources State Historic Preservation Division, the Office of Environmental Quality Control (OEQC), and the Department of Accounting and General Services.

O'ahu Office
P.O. Box 1114
Kailua, Hawai'i 96734
Ph.: (808) 262-9972
Fax: (808) 262-4950

www.culturalsurveys.com

Maui Office
1860 Main St.
Wailuku, Hawai'i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Management Summary

Reference	Cultural Impact Assessment (CIA) for DAGS/ICSD Ānuenue Radio Site Project, Waiākea Ahupua'a, South Hilo District, Hawai'i Island, TMK: [3] 2-4-001:170 (Hammatt and Shideler 2011)
Date	February 2012
Project Number	CSH job code: WAIAKEA 7
Agencies	The State of Hawai'i Department of Accounting and General Services (DAGS); State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR)
Project Location	The Project area is located southwest of the Nowelo Street/Komohana Street Intersection, approximately 500 meters southwest of the University of Hawai'i Hilo's 'Imiloa Astronomy Center in Hilo, Waiākea Ahupua'a, South Hilo District, Hawai'i Island, TMK: [3] 2-4-001:170
Land Jurisdiction	The State of Hawai'i is the landowner of the parcel, which has been transferred to the University of Hawai'i by executive order, DAGS will need to execute an agreement with the University of Hawai'i and the Department of Land and Natural Resources to develop the parcel.
Project Description	The proposed Ānuenue Radio Waiākea Site Project consists of a new unmanned telecommunications facility, which include the construction of: 1. A self-supported 4-leg 120-foot tower with microwave dish antennas and other whip, panel, and yagi-style (directional) antennas; 2. An approximately 900-square-foot by 12-foot high building, with interior spaces to support radio equipment, batteries, and an emergency generator; 3. Other supporting facilities, including an above-ground diesel fuel tank, security fencing, and an access driveway along the western portion of TMK: [3] 2-4-001:170.
Project Acreage	TMK: [3] 2-4-001: parcel 170 is understood as 1.42 acres. State Site 50-10-35-22080 is only about 35 m^2 (377 square feet)

Area of Potential Effect (APE) and Survey Acreage	For the purposes of this CIA, the APE is defined as the approximately 1.42-acre Project area. While this investigation focused on the Project APE, the study area included the entire ahupua'a (land division usually extending from the uplands to the sea) of Waiākea
Document Purpose	The State of Hawai'i Department of Accounting and General Services (DAGS) and Wilson Okamoto Corporation requested that CSH conduct this CIA to support the Project's Chapter 343 HRS and, if needed, Section 106 and NEPA compliance. Through document research, Project area inspection, and extensive consultation with knowledgeable cultural informants, this report follows the State of Hawai'i *Office of Environmental Quality Control's Guidelines for Assessing Cultural Impacts* and is intended to assess the proposed Project's potential effect on traditional cultural resources and practices, and potential traditional cultural properties (TCP).
Consultation Effort	CSH attempted to contact Hawaiian organizations, agencies and community members in order to identify individuals with cultural expertise and/or knowledge of the Project area and the vicinity. Outreach included efforts to contact 30 individuals and agencies. The organizations consulted included the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), the Hawai'i Island Burial Council (HIBC), Hui Mālama I Nā Kūpuna o Hawai'i Nei and the Hawaiian Civic Club of Hilo.
Results of Background research	Background research on the Project area and surrounding area of Waiākea indicated the following results: 1. Waiākea literally means "broad waters" (Pukui et al. 1974:221), but is also a type of kalo (taro) grown in Kona, Hawai'i (lehua ke'o ke'o [white lehua], a variety of taro called waiākea) (Pukui & Elbert 1986:377). 2. According to an Archaeological Inventory Survey conducted in 2000 by CSH (Bush et al. 2000), a single human femur was observed under the overhang of a collapsed lava tube section or "sinkhole" (State Inventory of Historic Properties #50-10-35-22080) approximately 50 meters north of the Project area. Minimal modifications of the sinkhole were observed. It was believed that the femur was intentionally placed at that location, most likely in pre-contact or early post-Contact times and that it is most likely the ethnicity is Native Hawaiian.

	3. Waiākea Fishpond, once known as the Royal Ponds, is a naturally inland pond fed by voluminous springs and the Waiākea Stream and is made up of five smaller ponds: Hō'akimau, Mohouli, Kalepolepo, Waihole, and Waiākea (the largest) (James 1995:55). The fishpond of Waiākea was so valued that Kamehameha I sent runners from Kawaihae and Kailua to fetch live mullet from Waiākea. Fornander's (1916-1919:490-491) work describes Kamehameha I sending his fastest runners, Makoa and Kāneaka'ehu, to "Hilo to get mullet from the pond of Waiākea, on the boundary adjoining Puna." 4. At least three species of limu (seaweed) are known to have been gathered in Hilo Bay: limu 'ele'ele, limu huluhuluwaena, and limu 'aki'aki. The first two grow near the shore and are easily harvested by hand, while limu 'aki'aki requires a sharp tool to cut its strong holdfasts (Kelly 1981:19). 5. Limpets ('opihi), sea urchins (wana), crabs (kūhonu, 'a'ama, 'alamihi), shrimps ('ōpae) and other mollusks and marine invertebrates were traditionally gathered for food and medicine in the Waiākea Ahupua'a (Kelly 1981:19). 6. Chiefly associations with Waiākea continued through traditional times and into the historic era. Kamehameha retained Waiākea after he had conquered all of the islands (ca. 1800), and upon his death he personally held Hilo lands, including Pi'i-honua, Punahoa, and Waiākea, descended to Liholiho, his son and heir to the kingdom. 7. Development in Waiākea Ahupua'a in the 1920s included the Keaukaha Hawaiian Homestead settlement. The settlement was the second established in the state under the Hawaiian Homes Commission Act, and was described as "an unqualified success" (Kelly et al. 1981:229). By 1930 some 200 house lots had been leased to Hawaiian families (Akoi 1989:44).
Results of Community Consultation	CSH attempted to contact 17 community members, government agency and community organization representatives, and individuals, including residents and cultural practitioners. We attempted to contact these parties at least twice. A detailed interview was held with one party (Mr. Puna Lerma). There were no substantive concerns about the project area per se expressed by Mr. Lerma or any of the other contacts.

Recommendations	Based on the information gathered from archival documents, from the companion archaeological inventory survey (Bautista et al. 2012), and from the on-going community consultation for this CIA report, CSH recommends the following two measures for the proposed Project to mitigate potentially adverse effects on cultural, historic and natural resources, practices, and beliefs: 1. CSH recommends that should cultural and/or burial sites be identified during ground disturbance, all work should immediately cease, and the appropriate agencies notified pursuant to applicable law. 2. CSH recommends that, in the event of discoveries of *iwi kūpuna* (ancestral remains) during Project construction activities, recognized cultural and lineal descendants should be notified and consulted on matters of burial treatment.

APPENDIX E

Biological Surveys Conducted for the DAGS Waiākea 'Ānuenue Radio Tower TMK: 2-4-001:007 and (2)-4-001:040, Hilo, Island of Hawai'i

Prepared by:

Reginald E. David
Rana Biological Consulting, Inc.
P.O. Box 1371
Kailua-Kona, Hawai'i 96745

Prepared for:

Wilson Okamoto Corporation
1907 South Beretania Street,
Suite 400
Honolulu, Hawaii 96826

March 26, 2012

Table of Contents

INTRODUCTION AND BACKGROUND 3
GENERAL PROJECT AND SITE DESCRIPTIONS 3
METHODS 6
AVIAN SURVEY METHODS 6
MAMMALIAN SURVEY METHODS 6
RESULTS 6
AVIAN SURVEYS 6
MAMMALIAN SURVEY 7
DISCUSSION 8
BOTANICAL RESOURCES 8
AVIAN RESOURCES 8
MAMMALIAN RESOURCES 9
POTENTIAL IMPACTS TO PROTECTED SPECIES 9
HAWAIIAN HOARY BAT 9
SEABIRDS 9
RECOMMENDATIONS 10
CRITICAL HABITAT 10
LITERATURE CITED 12

Introduction and Background

The State of Hawai'i Department of Accounting and General Services (DAGS) is proposing to erect an approximately 120-foot radio tower and associated infrastructure on an approximately 1.42-acre of land, identified as Tax Map Key (2)-4-001:007 and (2)-4-001:040, located in Hilo, Hawai'i (Figure 1.1).

This report describes the methods used and the results of, botanical, avian and mammalian surveys conducted on the subject property as part of the environmental disclosure process associated with the proposed project. The primary purpose of the surveys was to determine if there are any botanical, avian or mammalian species currently listed, or proposed for listing under either federal or State of Hawai'i endangered species statutes within or adjacent to the study area. The federal and State of Hawai'i listed species status follows species identified in the following referenced documents, (Department of Land and Natural Resources (DLNR), 1998; U. S. Fish & Wildlife Service (USFWS), 2005a, 2005b, 2012). Fieldwork was conducted on March 16, 2012. I was also tasked with comparing the results of this assessment with the results of two previous surveys conducted on the site (Char, 2001; David, 2001).

General Project and Site Descriptions

The DAGS is proposing to construct a 120-foot 4-leg self-supported pipe leg tower with mounted antennas, a three room, single-story approximately 931-square foot building, and other supporting facilities for the DAGS Information and Communication Service Division to support the State Civil Defense and Department of Public Safety, and the U.S. Coast Guard radio systems

The approximately 1.42-acre site is Waiākea *ahupua'a*, South Hilo District, Island of Hawai'i. The site is located at an elevation of approximately 105 meters feet above mean sea level. The site is adjacent to a paved Department of water supply access road. There is a watertank located to the south of the site and the site is *mauka* of the Hawaiian Electric Light Company's Komohana substation. The terrain within the project site is composed of a mix of *pāhoehoe* and *'a'ā* lava flows formed by Mauna Loa during the late Holocene Epoch. The flows were deposited between 750 and 1,500 years ago (Wolfe and Morris 1996). At the time of this survey a portion off the site had recently been cleared (Figure 2).

The vegetation on the site is a mix of scrub *'ohi'a* (*Metrosideros polymorpha*), *koa haole* (*Leucaena leucocephala*) with an *'uluhe* (*Dicranopteris linearis*), understory, interspersed with numerous alien species including; strawberry guava (*Psidium cattleianum*), Christmas berry (*Schinus terebinthifolius*), octopus tree (*Schefflera actinophylla*), and numerous alien weedy and grass species. The vegetation on the portion of the site that has not been cleared is quite dense (Figure 3).

As can been seen in Figure 2 portions of the site are highly disturbed, with roads, trails and other openings in the vegetation.

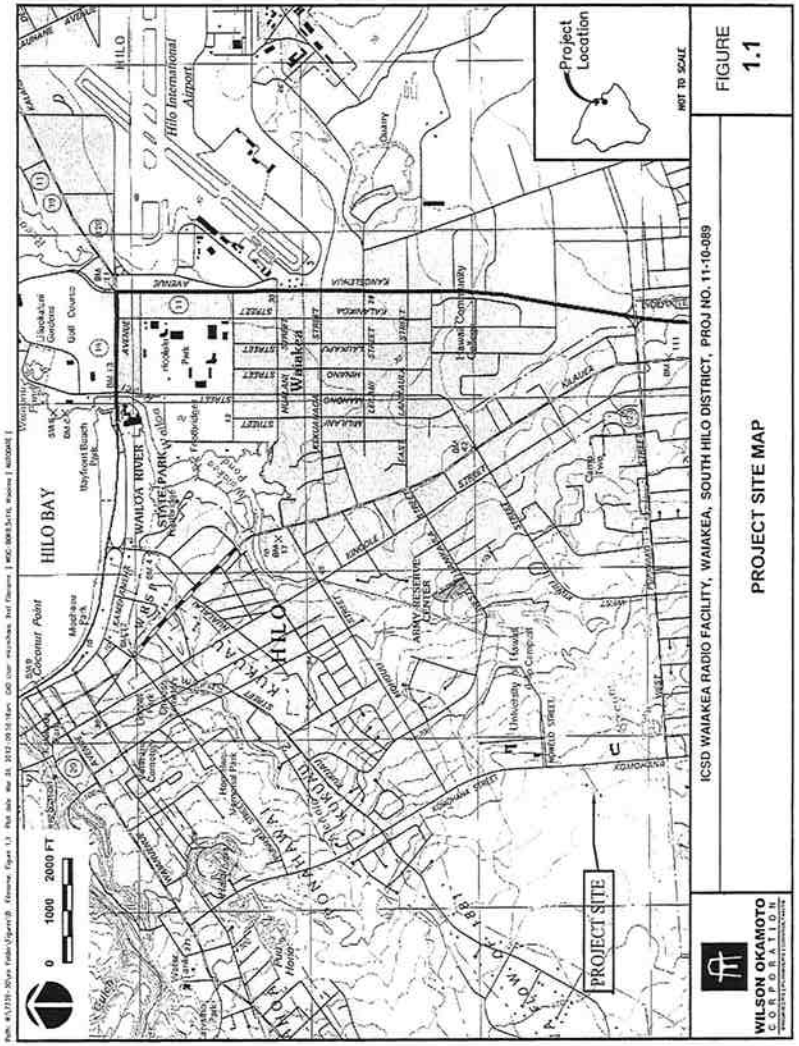

Figure 2 – Tower site showing existing road and cleared area – looking west

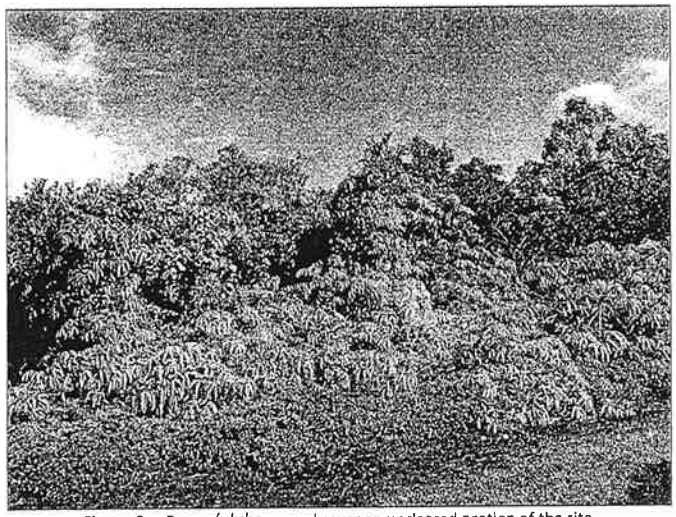

Figure 3 – Dense *'uluhe* ground cover on uncleared protion of the site

Methods

Plant names follow *Manual of the Flowering Plants of Hawai'i* (Wagner *et al.*, 1990, 1999) for native and naturalized flowering plants. The avian phylogenetic order and nomenclature used in this report follows the *AOU Check-List of North American Birds* (American Ornithologists' Union, 1998), and the 42nd through the 52nd supplements to the Check-List (American Ornithologists' Union, 2000; Banks et al., 2002, 2003, 2004, 2005, 2006, 2007, 2008; Chesser *et al.*, 2009, 2010, 2011). Mammal scientific names follow (Tomich, 1986). Place names follow *Place Names of Hawaii* (Pukui *et al.*, 1974).

Avian Survey Methods

One avian count station was sited within the study site. A single 8-minute avian point count was made at the count station. Field observations were made with the aid of Leica 8 X 42 binoculars and by listening for vocalizations. The count and subsequent search of the site were conducted between 8:00 am and 10:00 am. Time not spent counting the point count station was used to search the remainder of the site for species and habitats not detected during the point count. Weather conditions were ideal, with no rain, unlimited visibility on the site, and winds of between 1 and 6 kilometers an hour.

Mammalian Survey Methods

With the exception of the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), or *'ōpe'ape'a* as it is known locally, all terrestrial mammals currently found on the Island of Hawai'i are alien species, and most are ubiquitous. The survey of mammals was limited to visual and auditory detection, coupled with visual observation of scat, tracks, and other animal sign. A running tally was kept of all terrestrial vertebrate mammalian species detected within the study site.

Results

Avian Surveys

A total of 24 individual birds of five species, representing five separate families, were recorded during the station count. All of the avian species recorded during the course of this survey are alien to the Hawaiian Islands (Table 1).

No avian species currently protected or proposed for protection under either the federal or State of Hawai'i endangered species programs were detected during the course of this survey (DLNR, 1998; USFWS, 2005a, 2005b, 2012).

Avian diversity and densities were low, though in keeping with the location and vegetation present on the site. Japanese White-eye (*Zosterops japonicus*), were the most frequently

recorded species, accounting for 50 percent of the total number of birds recorded during the station count.

Table 1 – Avian Species Detected Within the DAGS 'Ānuenue Site

Common Name	*Scientific Name*	*ST*	#
	PASSERIFORMES		
	ZOSTEROPIDAE - White-eyes		
Japanese White-eye	*Zosterops japonicus*	A	12
	TIMALIIDAE - Babblers		
Chinese Hwamei	*Garrulax canorus*	A	6
Red-billed Leiothrix	*Leiothrix lutea*	A	2
	STURNIDAE - Starlings		
Common Myna	*Acridotheres tristis*	A	1
	CARDINALIDAE - Cardinals Saltators & Allies		
Northern Cardinal	*Cardinalis cardinalis*	A	3

Key to table 1

ST Status

A Alien – Introduced to the Hawaiian Islands by humans

\# Number of individual birds detected

Mammalian Survey

Four terrestrial mammalian species were detected during the course of this survey. One small Indian mongoose (*Herpestes a. auropunctatus*) was seen within the site. Dogs (*Canis f. familiaris*) was heard barking from outside of the site, and dog scat and tracks were encountered along the roadway on the south side of the site. One pig (*Sus s. scrofa*) was heard, and tracks, scat and rooting of this species were also encountered.

No mammalian species currently protected or proposed for protection under either the federal or State of Hawai'i endangered species programs were detected during the course of this survey (DLNR, 1998; USFWS, 2005a, 2005b, 2012).

Discussion

Botanical Resources

During the course of the reconnaissance level botanical survey of the site I recorded no species that were not recorded by Char in 2001 (Char, 2001). During her survey, which also included this site, she recorded more species than I encountered – not surprising given the larger size of the site she surveys. Neither she nor I recorded any plant species currently listed or proposed for listing under either federal or State of Hawai'i endangered species statutes (Char, 2001; USFWS 2012).

Avian Resources

The findings of the avian survey are consistent with the location of the site. These findings are also comparable to the results of at least one other survey conducted on this site (David, 2001).

As previously discussed a total of five avian species were detected during the time spent within the study area. All of the species recorded are alien to the Hawaiian Islands. During the course of the 2001 avian survey conducted on lands, which include this site I recorded eight species of birds, all of those recorded during that survey are also alien to the Hawaiian Islands.

Although no seabirds were detected during this survey, it is probable that both the endangered Hawaiian Petrel (*Pterodroma sandwichensis*), and the threatened endemic sub-species of the Newell's Shearwater (*Puffinus auricularis newelli*), over-fly the project area in small numbers between April and the middle of December each year. Both species have been recorded flying to and from their nesting colonies over the greater Hilo area (Day et al., 2003; David 2012). Both of these pelagic seabird species nest high in the mountains in burrows excavated under thick vegetation, especially *'uluhe* (*Dicranopteris lineraris*) fern. Although there is a large amount of *'uluhe* on the site, the site is no longer, even if ever was suitable nesting habitat for either of these seabird species.

The primary cause of mortality in the two aforementioned seabird species is thought to be predation by alien mammalian species at the nesting colonies (USFWS 1983; Simons and Hodges 1998; Ainley et al., 2001). Collision with man-made structures is considered to be the second most significant cause of mortality of these seabird species in Hawai'i. Nocturnally flying seabirds, especially fledglings on their way to sea in the summer and fall, can become disoriented by exterior lighting. When disoriented, seabirds often collide with manmade structures, and if they are not killed outright, the dazed or injured birds are easy targets of opportunity for feral mammals (Hadley 1961; Telfer 1979; Sincock 1981; Reed et al., 1985; Telfer et al., 1987; Cooper and Day, 1998; Podolsky et al. 1998; Ainley et al., 2001; Hue et al., 2001; Day et al 2003).

No Hawaiian Hawks (*Buteo solitarius*) were detected during the course of this or the 2001 survey which was conducted over a larger area, which contained the current site (David, 2001). This species is regularly seen within the greater Hilo area. It is probable that this species occasionally forages over the site. Currently there are no large stature trees suitable as nesting platforms for this species on or close to the site.

Mammalian Resources

The findings of the mammalian survey are consistent with the location of the site. These findings are also comparable to the results of at least one other survey conducted on this site (David, 2001). I detected one more mammalian species than I did during the 2001 survey, which included this site (David, 2001). All of the mammalian species detected are alien to the Hawaiian Islands.

Although no rodents were detected, is likely that the several of the four established alien *muridae* found on Hawai'i, roof rat (*Rattus r. rattus*), Norway rat (*Rattus norvegicus*), European house mouse (*Mus domesticus*) and possibly Polynesian rats (*Rattus exulans hawaiiensis*) use resources found within the site on a seasonal basis. These human commensal species are all but ubiquitous around human activity.

No Hawaiian hoary bats were detected during the course of this survey. Hawaiian hoary bats are widely distributed within the greater Hilo area and are present in most areas that still have tree and dense shrubs, (USFWS, 1998; Bonaccorso et al., 2005, 2007; 2011; David, 2012).

Potential Impacts to Protected Species

Hawaiian hoary bat

The principal potential impact that the construction of this project poses to bats is during the clearing and grubbing phases of construction as vegetation is removed. The removal of vegetation within the project site may temporarily displace individual bats, which may use the vegetation as a roosting location. As bats use multiple roosts within their home territories, the potential disturbance resulting from the removal of the vegetation is likely to be minimal. During the pupping season, females carrying their pups may be less able to rapidly vacate a roost site as the vegetation is cleared. Additionally, adult female bats sometimes leave their pups in the roost tree while they forage. Very small pups may be unable to flee a tree that is being felled. Potential adverse effects from such disturbance can be avoided or minimized by not clearing woody vegetation taller than 4.6 meters (15-feet), between June 1 and September 15, the period in which bats are potentially at risk from vegetation clearing.

Seabirds

The principal potential impact that the development and operation of the proposed radio tower poses to protected seabirds is the increased threat that birds will be downed after becoming disoriented during the nesting season by lights associated with the project. The

two main areas that outdoor lighting could pose a threat to these nocturnally flying seabirds is if, 1) during construction if it is deemed expedient, or necessary to conduct nighttime construction activities, 2) following build-out, the potential operation of streetlights and security or facility lighting during the seabird nesting season.

Recommendations

1. It is recommended that woody vegetation taller than 4.6 meters (15-feet), not be cleared between June 1 and September 15, the period in which bats are potentially at risk from vegetation clearing.

2. If nighttime construction activity or equipment maintenance is proposed during the construction phases of the project, all associated lights should be shielded, and when large flood/work lights are used, they should be placed on poles that are high enough to allow the lights to be pointed directly at the ground.

3. Following build-out it is recommended that any streetlights, security or facility lighting be shielded (Reed et al. 1985, Telfer et al. 1987). This minimization measure would serve the dual purpose of minimizing the threat of disorientation and downing of Hawaiian Petrels and Newell's Shearwaters, while at the same time complying with the Hawai'i County Code § 14 – 50 *et seq.* which requires the shielding of exterior lights so as to lower the ambient glare caused by unshielded lighting to the astronomical observatories located on Mauna Kea.

Critical Habitat

There is no federally delineated Critical Habitat present on or adjacent to the project site. Thus the proposed development and operation of the radio facilities planned for this site will not result in impacts to federally designated Critical Habitat. There is no equivalent statute under State law.

Glossary

'A'ā – Clinker lava formed by slow moving lava flows
Alien – Introduced to Hawai'i by humans
Endangered – Listed and protected under the Endangered Species Act of 1973, as amended (ESA) as an endangered species
Mauka – Upslope, towards the mountains
Muridae – Rodents, including rats, mice and voles, one of the most diverse family of mammals
Nocturnal – Night-time, after dark.
'Ōpe'ape'a – Endemic endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*)
Pāhoehoe - Sheet lava formed by relatively fast moving lava flows
Pelagic – An animal that spends its life at sea – in this case seabirds that only return to land to nest and rear their young
Sign – Biological term referring tracks, scat, rubbing, odor, marks, nests, and other signs created by animals by which their presence may be detected

DAGS – State of Hawai'i Department of Accounting and General Services
DLNR – State of Hawai'i Division of Land and Natural Resources
ESA – Endangered Species Act of 1973, as amended
USFWS – United State Fish & Wildlife Service

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APPENDIX F

NEIL ABERCROMBIE
GOVERNOR

7739-30
5/17/12

GLENN M. OKIMOTO
DIRECTOR

cc: DAGS
em

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

STP 8.0831

May 4, 2012

JS

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

RECEIVED
MAY 11 2012
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Anuenue Radio Sites and Towers at Waiakea, South Hilo
Draft Environmental Assessment (DEA)

The State Department of Transportation (DOT) previously commented on the subject project during the Pre-Assessment Consultation for the DEA in our letter, STP 8.0665 dated December 8, 2011, located within Appendix B of the DEA. DOT has no further comments to offer at this time.

DOT appreciates the opportunity to provide comments. If there are any questions or the need to meet with DOT staff, please contact Mr. Garrett Smith of the DOT Statewide Transportation Planning Office at (808) 831-7976.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

NEIL ABERCROMBIE
GOVERNOR

7739-30

DEAN H. SEKI
COMPTROLLER
7/15/12

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL -9 2012

PM-3158.2

The Honorable Glenn Okimoto, Ph.D.
Director of Transportation
State of Hawai'i
869 Punchbowl Street
Honolulu, Hawai'i 96813-5097

Dear Dr. Okimoto:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your May 4, 2012, comment letter regarding the Information and Communications Services Division – 'Ānuenue Radio Sites and Towers, Waiākea Site project. The Final Environmental Assessment (EA) will note that the Department of Transportation has no further comments.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS
J Sakaguchi, WOC

NEIL ABERCROMBIE
GOVERNOR

DWIGHT TAKAMINE
DIRECTOR

AUDREY HIDANO
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
830 PUNCHBOWL STREET, ROOM 321
HONOLULU, HAWAII 96813
www.hawaii.gov/labor
Phone: (808) 586-8844/Fax: (808) 586-9099

7739-30
5/10/12
cc: DAGS

RECEIVED
MAY 09 2012
WILSON OKAMOTO CORPORATION

May 7, 2012

Mr. John L. Sakaguchi, Senior Planner
Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, HI 96826

Dear Mr. Sakaguchi:

This is in response to your request for comments dated April 6, 2012 on the Draft Environmental Assessment for the Information and Communications Services Division – Anuenue Radio Sites and Towers; Waiakea Site project for the State of Hawaii Department of Accounting and General Services located in the South Hilo District, Island of Hawaii.

The Department of Labor and Industrial Relations has no comments, and we foresee no impact on our existing or proposed programs. Should you have any questions, please call me at (808) 586-8844.

Sincerely,

DWIGHT TAKAMINE
Director

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

7739-30
7/16/12

JUL -9 2012

PM-3155.2

The Honorable Dwight Takamine
Director
Department of Labor and Industrial Relations
State of Hawai'i
830 Punchbowl Street, Room 321
Honolulu, Hawai'i 96813

Dear Mr. Takamine:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your May 7, 2012, comment letter regarding the Information and Communications Services Division – 'Ānuenue Radio Sites and Towers, Waiākea Site project. The Final Environmental Assessment (EA) will note that the Department of Labor and Industrial Relations had no comments and foresees no impact to their existing or proposed programs.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS-Public Works
J Sakaguchi, WOC

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

T59-30

5/6/12

cc: DAGS
em

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 4, 2012

Wilson Okamoto Corporation
Attention: Mr. John Sakaguchi, AICP
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

via email: jsakaguchi@wilsonokamoto.com

Dear Mr. Sakaguchi:

SUBJECT: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI), Department of Accounting and General Services, Information and Communications Services Division – Anuenue Radio Sites and Towers; DAGS JOB No. 11-10-0689, Waiakea Site, South Hilo District; TMK: (3) 2-4-001:170 & 2-4-001:040

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from (a) the Hawaii District Land Office, and (b) the Engineering Division on the subject matter. Should you have any questions, please feel free to call Kevin Moore at 587-0426. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)

1/5

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

2012 APR 12 A 11:52

RECEIVED
LAND DIVISION
HILO, HAWAII

April 10, 2012

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
X Land Division – Hawaii District
X Historic Preservation

DEPT. OF LAND & NATURAL RESOURCES STATE OF HAWAII
2012 APR 30 A 10:40
RECEIVED LAND DIVISION

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI), Department of Accounting and General Services, Information and Communications Services Division – Anuenue Radio Sites and Towers; DAGS JOB No. 11-10-0689
LOCATION: Waiakea Site, South Hilo District; TMK: (3) 2-4-001:170 & 2-4-001:040
APPLICANT: Wilson Okamoto Corporation for the Department of Accounting and General Services

Transmitted for your review and comment on the above referenced project. One hard copy of the Draft Environmental Assessment (DEA) is available for review in the Land Division office in Honolulu. Additionally, the DEA can be found on-line at: http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Hawaii/2010s/2012-04-08-DEA-Waiakea-Radio-Facility-Construction.pdf. We would appreciate your comments on this document. Please submit any comments by May 4, 2012.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Kevin Moore at 587-0426. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed:
Date: 4/26/12

cc: Central Files

✓

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
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

April 26, 2012

MEMORANDUM

TO: Russell Y. Tsuji, Administrator

FROM: Gordon C. Heit, Hawaii District Land Agent

SUBJECT: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI) for DAGS, ICSD – Anuenue Radio Sites and Towers

LOCATION: Waiakea, South Hilo, Hawaii, TMK: (3) 2-4-001:170

APPLICANT: Wilson Okamoto Corporation on behalf of DAGS

Pursuant to your request for comments on the above matter, we offer the following:

As noted in the HDLO pre-consultation comments, the subject land is currently under Executive Order No. 3814 to the University of Hawaii for university and allied purposes. The proposed use of the parcel as a radio and tower site for the Department of Accounting and General Services, Information and Communications Services Division, appears to be inconsistent with the purpose of the set-aside to UH.

Page 1-13 of the final EA indicates that the UH Hilo is willing to cooperate in the transfer of the entire parcel identified as TMK: 2-4-001:170 to DAGS subject to the approval by the President and the Board of Regents of the University. Approval of the site shall be conditioned upon the University's withdrawal of parcel 170 from the EO 3814 and set aside to DAGS.

Please contact me should you have any questions.

3

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL -9 2012

PM-3160.2

Mr. Russell Y. Tsuji
Land Administrator
Department of Land and Natural Resources
State of Hawai'i
P.O. Box 621
Honolulu, Hawai'i 96809

Dear Mr. Tsuji:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your April 26, 2012, comment letter on the subject Draft Environmental Assessment (EA). We have received correspondence from the University of Hawai'i at Hilo (UH Hilo) informing us that they have initiated their internal processes to convey the property at TMK: (3) 2-4-001:170 to the Department of Land and Natural Resources (DLNR), along with providing the necessary easements through adjacent properties to the Department of Accounting and General Services (DAGS).

DAGS has sent a letter, (P)1095.2 dated May 9, 2012, to the DLNR requesting conveyance of TMK: (3) 2-4-001:170 from the University of Hawai'i to DLNR for subsequent assignment by way of Governor's Executive Order to DAGS, along with easements through TMK: (3) 2-4-001:122 and TMK: (3) 2-4-001:040.

The Draft EA noted that the tower will have six 2-foot antennas for UH Hilo, which will permit extension of data networks from the main Hilo campus to as many as five off campus locations. The radio building will also include space for an equipment rack for exclusive use by UH Hilo.

Thus, as stated in the Draft EA, there will be facilities at the Waiākea Radio Facility which will provide benefit to UH Hilo; this information will be included in the Final EA.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS, PMB
J Sakaguchi, WOC
D. DePonte, DAGS, PB

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 10, 2012

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
X Land Division – Hawaii District
X Historic Preservation

RECEIVED
LAND DIVISION
2012 MAY -3 A 9:26
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI), Department of Accounting and General Services, Information and Communications Services Division – Anuenue Radio Sites and Towers; DAGS JOB No. 11-10-0689
LOCATION: Waiakea Site, South Hilo District; TMK: (3) 2-4-001:170 & 2-4-001:040
APPLICANT: Wilson Okamoto Corporation for the Department of Accounting and General Services

Transmitted for your review and comment on the above referenced project. One hard copy of the Draft Environmental Assessment (DEA) is available for review in the Land Division office in Honolulu. Additionally, the DEA can be found on-line at: http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Hawaii/2010s/2012-04-08-DEA-Waiakea-Radio-Facility-Construction.pdf. We would appreciate your comments on this document. Please submit any comments by May 4, 2012.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Kevin Moore at 587-0426. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed:
Date: 5/2/12

cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/SteveMolmen
Ref.: DEAFONSAnuenueRadioSites&Towers
Hawaii.557

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone ___.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Mario Siu Li at (808) 768-8098 or Ms. Ardis Shaw-Kim at (808) 768-8296 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Carter Romero at (808) 961-8943 of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Ms. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: ___

(X) **Other: Our previous comments dated December 13, 2011 which was attached in the Draft Environmental Impact Statement, still apply.**

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: ___
CARTY S. CHANG, CHIEF ENGINEER

Date: 5/2/12

5

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
COMPTROLLER
7/5/12

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL - 9 2012

PM-3156.2

Mr. Russell Y. Tsuji
Land Administrator
Department of Land and Natural Resources
State of Hawai'i
P.O. Box 621
Honolulu, Hawai'i 96809

Dear Mr. Tsuji:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your April 10, 2012, comment letter regarding the Information and Communications Services Division – 'Ānuenue Radio Sites and Towers, Waiākea Site project. The Final Environmental Assessment (EA) will note that the Department of Land and Natural Resources, Engineering Division comments regarding the location of the project site within Flood Zone X still apply, as stated in the Draft EA.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS-Public Works
J Sakaguchi, WOC

UNIVERSITY OF HAWAI'I
HILO

APR 19 2012
WILSON OKAMOTO CORPORATION

7739-30
4/20/12
cc: DAGS) em

April 17, 2012

Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
Attn: Mr. John L. Sakaguchi, AICP, Senior Planner

Subject: Draft Environmental Assessment/Anticipated FONSI
Information and Communications Services Division, Anuenue Radio Sites and Towers; Waiakea Site, South Hilo District, Island of Hawaii; DAGS JOB No. 11-10-0479; Tax Map Key: 2-4-001: 170
Review and Comment

Dear Mr. Sakaguchi:

This is in response to the Draft Environmental Assessment dated April 2012 published in the April 8, 2012 issue of The Environmental Notice published by the Office of Environmental Quality Control.

The University of Hawaii at Hilo would like to acknowledge the reference in Section 1.5.4, "Tower and Antennas", accommodating the allowance for the six 2-foot antennas for the exclusive use by UH Hilo for communication between the main campus and as many as five remote sites. We also appreciate the allowance for a Low Power FM broadcast antenna for possible future use by UH Hilo.

Although assumed that adequate space for equipment related to UH Hilo's antennas would be provided, we would ask that reference be made in the EA that a single rack space will be allotted in the equipment room for UH Hilo's exclusive use.

The University of Hawaii at Hilo will be willing to cooperate in the transfer of the 1.2 acre parcel identified as Tax Map Key: 3rd/ 2-4-001: 170 to DAGS for their project and future management. However, such transfer will be subject to approval by the President and the Board of Regents of the University of Hawaii. Subject to such approval, the transfer may need to be to the Department of Land and Natural Resources as a prior step to a transfer by DLNR to DAGS for the purposes of the subject radio tower.

ADMINISTRATION *Administrative Affairs*
200 W. Kāwili St. Hilo, HI 96720-4091 • Phone: (808) 974-7750 • Fax: (808) 974-7542 • www.uhh.hawaii.edu
An Equal Opportunity/Affirmative Action Institution

Additionally, the University of Hawaii would need to provide an easement over the existing access road that is currently utilized by the County of Hawaii, Department of Water Supply as access to their water tank site and by HELCO for access to their existing substation site. The underlying land area was conveyed to the University of Hawaii subject to these easements and the University would need to issue an additional non-exclusive easement to DAGS and/or DLNR as deemed appropriate as access to the new tower site.

Should you have any questions, please feel free to contact Harry Yada, Director of Real Property, at (808) 933-3267.

Sincerely,

Marcia Sakai
Interim Vice Chancellor Administrative Affairs

NEIL ABERCROMBIE
GOVERNOR

7759-30
DEAN H. SEKI
COMPTROLLER
7/5/12

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL -9 2012

PM-3159.2

Ms. Marcia Sakai
Vice Chancellor Administrative Affairs
University of Hawaii – Hilo
200 W. Kāwili Street
Hilo, Hawai'i 96720

Dear Vice Chancellor Sakai:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your April 17, 2012, comment letter on the subject Draft Environmental Assessment (EA), and earlier letter dated April 2, 2012, informing us that your internal processes will be initiated to convey the property at TMK: (3) 2-4-001:170, to the Department of Land and Natural Resources (DLNR), and to provide the necessary easements for access to the Department of Accounting and General Services (DAGS).

We have also sent a letter to DLNR, (P)1095.2 dated May 9, 2012, requesting the conveyance of the subject property from the University of Hawaii (UH) to DLNR for subsequent assignment by way of Governor's Executive Order to DAGS, along with easements through TMK: (3) 2-4-001:122 and TMK: (3) 2-4-001:040.

The Final EA will note that space for an equipment rack will be included in the radio building for exclusive use by the University of Hawaii at Hilo.

We appreciate your participation in the Draft EA review process, and assistance with the land transfer.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS, PMB
J Sakaguchi, WOC
D. DePonte, DAGS, PB

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

7759-30 JS
LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH
4/12/12

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

cc: DAGS/em

In reply, please refer to:
File:
12-068
Radio Sites and Towers

April 10, 2012

RECEIVED
APR 12 2012
WILSON OKAMOTO CORPORATION

Mr. John L. Sakaguchi, AICP
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Sakaguchi:

SUBJECT: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI), Information and Communications Services Division-Anuenue Radio Sites and Towers; Waiakea Site, South Hilo District, Island of Hawaii, DAGS JOB No. 11-10-0689; Tax Map Key: 2-4-001: 170 and 2-4-001: 040

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your letter, dated April 6, 2012. Thank you for allowing us to review and comment on the subject document. The document was routed to the various branches of the Environmental Health Administration. We have no comments at this time, but reserve the right to future comments. We strongly recommend that you review all of the Standard Comments on our website: www.hawaii.gov/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this application should be adhered to.

The United States Environmental Protection Agency (EPA) provides a wealth of information on their website including strategies to help protect our natural environment and build sustainable communities at: www.epa.gov/sustainability. The DOH encourages State and county planning departments, developers, planners, engineers and other interested parties to apply these strategies and environment principles whenever they plan or review new developments or redevelopments projects. We also ask you to share this information with others to increase community awareness on healthy, sustainable community design. If there are any questions about these comments please contact me.

Sincerely,

Laura Leialoha Phillips McIntyre, AICP
Environmental Planning Office Manager
Environmental Health Administration
Department of Heath
919 Ala Moana Blvd., Ste. 312
Honolulu, Hawaii 96814
Phone: 586-4337
Email: laura.mcintyre@doh.hawaii.gov
Website: www.hawaii.gov/health/environmental

NEIL ABERCROMBIE
GOVERNOR

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

7734-30
DEAN H. SEKI
COMPTROLLER
4/15/12

PM-3157.2

Ms. Laura Leialoha Phillips McIntyre, AICP
Environmental Planning Office Manager
Environmental Health Administration
Department of Health
State of Hawai'i
919 Ala Moana Boulevard, Suite 312
Honolulu, Hawai'i 96809

Dear Ms. McIntyre:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your April 20, 2012, comment letter regarding the Information and Communications Services Division – 'Ānuenue Radio Sites and Towers, Waiākea Site project. The Final Environmental Assessment (EA) will note that the Department of Health, Environmental Health Administration Branch had no comments.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS-Public Works
J Sakaguchi, WOC

William P. Kenoi
Mayor

County of Hawai'i
POLICE DEPARTMENT
349 Kapiolani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-8865

7734-30
4/27/12
Harry S. Kubojiri
Police Chief
Paul K. Ferreira
Deputy Police Chief
cc: DAGS) em
JS

April 23, 2012

Mr. John Sakaguchi
AICP, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street
Honolulu, HI 96826

RECEIVED
APR 26 2012
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact, Information and Communications Services Division—Anuenue Radio Sites and Towers; Waiakea Site, South Hilo District, Island of Hawaii; DAGS Job No. 11-10-0689; Tax Map Key: 2-4-001:170 and 2-4-001:040

Staff, upon reviewing the provided documents and previously visiting the proposed site, does not anticipate any significant impact to traffic and/or public safety concerns.

Thank you for allowing us the opportunity to comment.

If you have any questions, please contact Captain Robert Wagner of our S. Hilo Patrol Division at 961-2214.

Sincerely,

HENRY J. TAVARES, JR.
ASSISTANT POLICE CHIEF
AREA I OPERATIONS BUREAU

RW:lli
110743

NEIL ABERCROMBIE
GOVERNOR

7739.30
DEAN H. SEKI
COMPTROLLER
7/15/12

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL -9 2012

PM-3153.2

Mr. Henry J. Tavares, Jr.
Assistant Police Chief
Area I Operations Bureau
Police Department
County of Hawai'i
349 Kapi'olani Street
Hilo, Hawai'i 96720-3998

Dear Chief Tavares:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your April 23, 2012, comment letter regarding the Information and Communications Services Division – 'Ānuenue Radio Sites and Towers, Waiākea Site project. The Final Environmental Assessment (EA) will note that the County of Hawai'i, Police Department staff, upon reviewing the provided documents and previously visiting the proposed site, does not anticipate any significant impact to traffic and/or public safety concerns.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS-Public Works
J Sakaguchi, WOC

William P. Kenoi
Mayor

Darren J. Rosario
Fire Chief

Renwick J. Victorino
Deputy Fire Chief

7739.30
4/17/12
FILE
JS
cc: DAGS) em

County of Hawai'i
HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Room 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

April 11, 2012

Mr. John L. Sakaguchi
Wilson Okamoto Corporation
1907 South Beretanio Street
Artesian Plaza, Suite 400
Honolulu, Hawai'i 96826

RECEIVED
APR 16 2012
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi,

SUBJECT: DRAFT EA/ANTICIPATED FONSI, INFORMATION AND COMMUNICATIONS SERVICES DIVISION-ANUENUE RADIO SITES AND TOWERS; WAIAKEA SITE, DAGS JOB NO. 11-10-0689; TMK: 2-4-001:170 AND 2-4-001:040

The Hawai'i Fire Department does not have any comments to offer at this time regarding the above-referenced Draft Environmental Assessment/Anticipated Finding of No Significant Impact.

Sincerely,

DARREN J. ROSARIO
Fire Chief

RP:lc

Hawai'i County is an Equal Opportunity Provider and Employer.

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
COMPTROLLER

7735.30
7/15/12

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL -9 2012

PM-3152.2

Mr. Darren J. Rosario
Fire Chief
Hawai'i Fire Department
County of Hawai'i
25 'Āupuni Street, Room 103
Hilo, Hawai'i 96720

Dear Chief Rosario:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your April 11, 2012, comment letter regarding the Information and Communications Services Division – 'Ānuenue Radio Sites and Towers, Waiākea Site project. The Final Environmental Assessment (EA) will note that the County of Hawai'i, Fire Department had no comments.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS-Public Works
J Sakaguchi, WOC

William P. Kenoi
Mayor

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

County of Hawai'i
PLANNING DEPARTMENT

BJ Leithead Todd
Director
Margaret K. Masunaga
Deputy

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

7735-30
5/2/12
FILE

April 26, 2012

RECEIVED
APR 30 2012
WILSON OKAMOTO CORPORATION

JS

Mr. John L. Sakaguchi, AICP
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, HI 96826

Dear Mr. Sakaguchi:

SUBJECT: Review of Draft Environmental Assessment
Project: 'Ānuenue Radio Sites and Towers, Waiakea Site, DAGS Job No. 11-10-0479
TMK: (3) 2-4-001:040, 170; South Hilo, Hawai'i

Thank you for your letter received on April 10, 2012 requesting comments from this office regarding the Draft Environmental Assessment (DEA) for the subject project.

The State of Hawai'i Department of Accounting and General Services (DAGS) Information and Communications Services Division (ICSD) is proposing an 'Ānuenue Radio Site and Tower on the subject parcel. The proposed Radio Site and Tower will support the rebuilding and modernization of the ICSD-owned portion of the 'Ānuenue system, a shared State and Federal statewide communication system. The site will support the State Civil Defense, the State Department of Public Safety, and the U.S. Coast Guard radio systems. The site will also be designed to accommodate the public safety radio and microwave systems of the County of Hawai'i agencies should they decide to locate to the new facility.

The subject parcels are zoned A-1a (Agricultural-1 acre minimum lot size) and is situated within the State Land Use Agricultural District. In addition, according to the County of Hawai'i General Plan 2005 (amended December 2006), the subject properties are designated as University Use by the Land Use Pattern Allocation Guide. The subject area is not within the Special Management Area (SMA).

According to Chapter 25 (Zoning) of the Hawai'i County Code, Section 25-4-12, a telecommunication antenna or tower may be permitted in the RS, RD, RM, RCX, RA, FA, A, IA, and O districts if a use permit is obtained for such use. In addition, according to Section 25-2-71, plan approval shall be required in all applicable districts prior to the construction or establishment of telecommunication antennas and towers, as permitted under section 25-4-12. Therefore the proposed 'Ānuenue Radio Sites and Towers will require a use permit and a plan approval and will also be subject to conditions of those approvals.

We have no further comments to offer, at this time. However, please provide our department with a copy of the Final Environmental Assessment for our records.

If you have any questions or if you need further assistance, please feel free to contact Bethany Morrison of this office at (808) 961-8138.

Sincerely,

for BJ LEITHEAD TODD
Planning Director

BJM:cs
P:\wpwin60\Bethany\EA-EIS Review\draftea Anuenue Radio Sites and Towers- Waiakea.doc

cc: Mr. Daniel Jandoc
State of Hawai'i
Department of Accounting and General Services
1151 Punchbowl Street, Room 430
Honolulu, Hawai'i 96813

Councilman Donald Ikeda
Hawaii County Council
25 Aupuni Street, Suite 209
Hilo, Hawaii 96720

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
COMPTROLLER

7754.30
7/16/12

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL -9 2012

PM-3154.2

Ms. Bobby Jean Leithead Todd
Director
Planning Department
County of Hawai'i
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720

Dear Ms. Leithead Todd:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your April 26, 2012, comment letter regarding the Information and Communications Services Division – 'Ānuenue Radio Sites and Towers, Waiākea Site project. The Draft Environmental Assessment (EA) noted that the project site is zoned A-1a (Agricultural 1-acre minimum lot size) and located with the State Land Use Agricultural District. The Draft EA also stated a telecommunication antenna or tower may be permitted in the 1A zoning district if a use permit is obtained for such use. Plan approval is also required for construction of telecommunication antennas and towers. This information will be included in the Final EA, and applications will be submitted to the County for a use permit and plan approval.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS-Public Works
J Sakaguchi, WOC

William P. Kenoi
Mayor

William T. Takaba
Managing Director

7739-30
4/17/12

Dora Beck, P.E.
Acting Director

Hunter Bishop
Deputy Director

File

DAGS

County of Hawai'i
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

25 Aupuni Street • Hilo, Hawai'i 96720
(808) 961-8083 · Fax (808) 961-8086
http://co.hawaii.hi.us/directory/dir_envmng.htm

April 16, 2012

Mr. John L. Sakaguchi, AICP
Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, HI 96826

RECEIVED
APR 17 2012
WILSON OKAMOTO CORPORATION

RE: Draft EA/FONSI, Information and Communications Services Division – 'Ānuenue Radio Sites and Towers; Waiākea Site, South Hilo District, Island of Hawai'i; DAGS JOB No. 11-10-0689; TMK: 2-4-001:170 & 2-4-001:040

Dear Mr. Sakaguchi,

We have no comments to offer on the subject project.

Thank you for allowing us to review and comment on this project.

Sincerely,

Dora Beck

Dora Beck, P.E.
ACTING DIRECTOR

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

NEIL ABERCROMBIE
GOVERNOR

7739-30

DEAN H. SEKI
COMPTROLLER

7/15/12

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUL - 9 2012

PM-3151.2

Ms. Dora Beck, PE
Acting Director
Environmental Management Department
County of Hawai'i
25 'Āupuni Street
Hilo, Hawai'i 96720

Dear Ms. Beck:

Subject: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Information and Communication Services Division
'Ānuenue Radio Site and Towers
Waiākea Site, South Hilo District, Island of Hawai'i
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040
Response to Comment

Thank you for your April 16, 2012, comment letter regarding the Information and Communications Services Division – 'Ānuenue Radio Sites and Towers, Waiākea Site project. The Final Environmental Assessment (EA) will note that the County of Hawai'i, Department of Environmental Management had no comments.

We appreciate your participation in the Draft EA review process.

Sincerely,

DEAN H. SEKI
State Comptroller

c: D. Jandoc, DAGS-Public Works
J Sakaguchi, WOC

APPENDIX G

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
COMPTROLLER

6/10/12

cc: CSH/Jan

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

JUN 7 2012

PM-3135.2

Dr. Puaalaokalani Aiu
Administrator
Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard
Kapolei, Hawaii 96707

Dear Dr. Aiu:

Subject: County of Hawaii Use Permit
Request for "No Effect" Determination

Information and Communications Services Division
Waiakea Radio Site and Tower
D.A.G.S. Job No. 11-10-0689
Tax Map Key: 2-4-001:170 and 2-4-001:040, Waiakea South Hilo District, Island of Hawaii

Wilson Okamoto Corporation, our consultant, is preparing a County of Hawaii Use Permit for the Information and Communications Services Division – Waiakea Radio Facility project for the State of Hawaii, Department of Accounting and General Services (DAGS). A Draft Environmental Assessment (EA) for the project was submitted to your office for comment on April 6, 2012.

As part of the County Use Permit, we are requesting a "no effect" determination for the Waiakea Radio Facility project. The enclosed summary and Burial Treatment Plan provide background and the basis for this request. Further information is contained in the Draft EA.

If you need additional information, please call Daniel Jandoc of our Project Management Branch at (808) 586-0476, or John Sakaguchi of Wilson Okamoto Corporation at (808) 946-2277.

Very truly yours,

JAMES K. KURATA
Public Works Administrator

DJ/csc
Enclosures: Site Summary
Burial Treatment Plan

Site Summary
Information and Communications Services Division Waiakea Radio Facility,
Waiakea South Hilo District, Island of Hawaii; DAGS JOB No. 11-10-0689;
Tax Map Key: 2-4-001:170 and 2-4-001:040

On September 22, 2011, at the Hawaii Island Burial Council monthly meeting, the Burial Treatment Plan was presented to the Council and the SHPD. The plan noted the DAGS plan to construct a radio communication facility, including a tower, on the southeast corner of the burial parcel and proposed passive preservation in place with a 50-foot buffer surrounding the burial site. Access for cultural or lineal descendants would be on an ad-hoc basis by the landowner. The Burial Treatment Plan is attached. (Note, Appendix A of the Draft EA contains the same document.)

Prior to the September 22nd meeting, a site survey confirmed the single bone was still present in the sink. During the September 22nd meeting, one member of the public, who had responded to the newspaper notice, provided public testimony regarding the burial. At that time, based on the testimony, the Council deferred action on the Burial Treatment Plan and the buffer.

On October 20, 2011, at the Burial Council monthly meeting, a revision to the Burial Treatment Plan was presented to the Council which provided fencing along the boundary of the access driveway to minimize access to the burial site and/or the possibility of sealing the burial within the sink. After discussion, the Burial Council voted to approve the 50-foot buffer and preservation in-place for the burial and did not request sealing the burial. However, the Council recommended further discussion with the September 22nd meeting testifier, Mr. Lerma, regarding fencing and access to the burial.

Following the October 20th meeting, on November 8, 2011 a letter was sent to Mr. Lerma requesting his thoughts: 1) on the buffer zone shown in the Burial Treatment Plan; 2) a chain link fence along the north edge of the access driveway; 3) sealing of the burial; and 4) access arrangements to the burial. On November 24, 2011, follow up discussions were held with Mr. Lerma regarding the items set forth in the letter. Based on discussions at that meeting, the 50-foot buffer will be maintained and a fence will be constructed along the northern edge of the access driveway leaving an opening in the fence at the western end. The burial will not be sealed. Lastly, there will be no special access arrangements.

As documented in the Draft EA, an alternative access plan was being considered for the project. This access plan would use the existing paved roadway to access the project site from the south, rather than the east as shown the Burial Treatment Plan. This southern or "shorter access" would not require as much clearing and fencing as previously shown eastern access. The southern access would only fence the project site and not fence the access driveway shown in the Burial Treatment Plan. Access to the burial site would remain almost the same as existing conditions. Given the reduced clearing and construction costs, DAGS will be proceeding with the alternative access plan. See attached Figure 4.1 from the Draft EA.

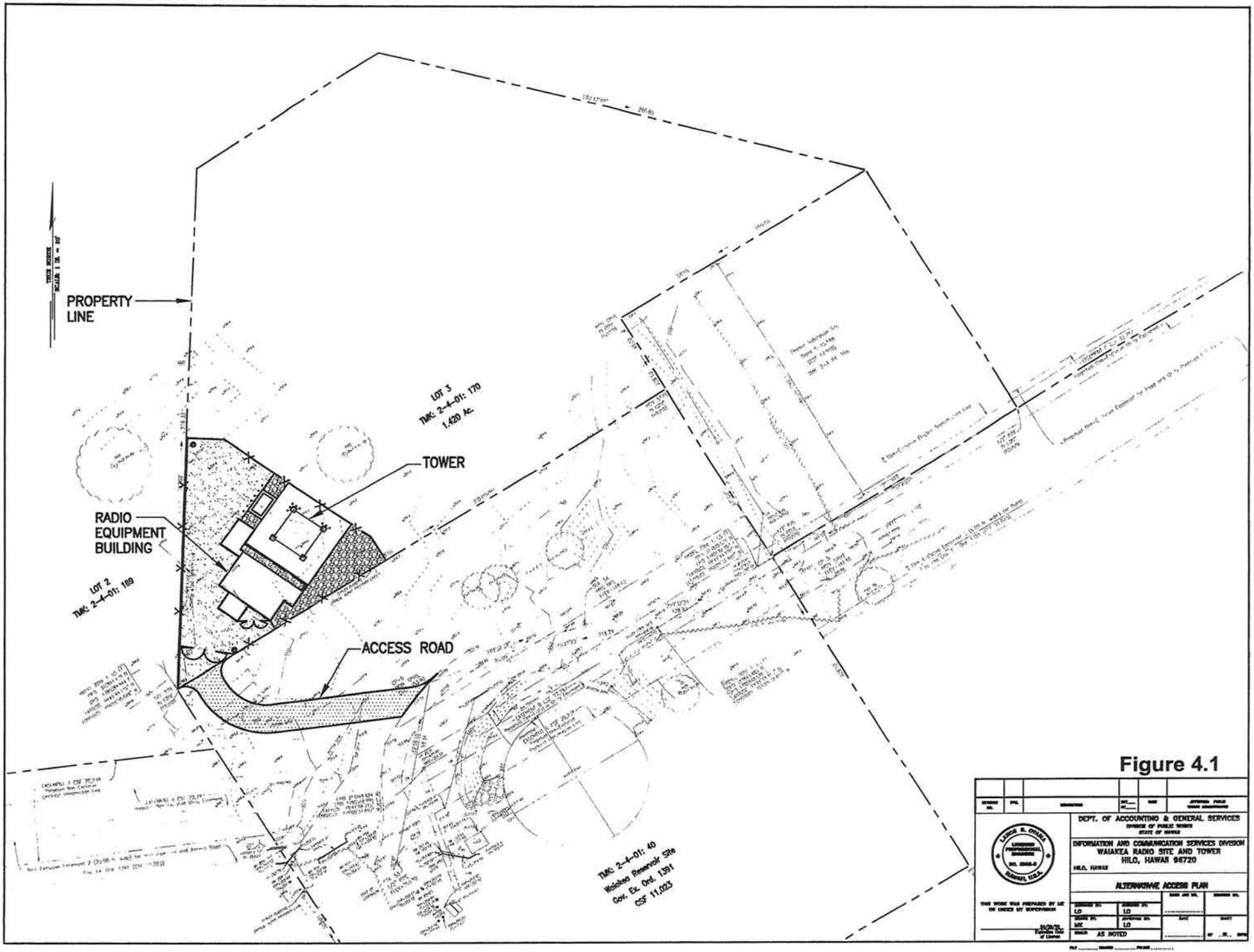
PROPERTY LINE
LOT 3
TMK: 2-4-01: 170
1.420 Ac.
TOWER
RADIO EQUIPMENT BUILDING
LOT 2
TMK: 2-4-01: 169
ACCESS ROAD
TMK: 2-4-01: 40
Waiakea Reservoir Site
Gov. Ex. Ord. 1391
CSF 11,023
DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
STATE OF HAWAII
INFORMATION AND COMMUNICATION SERVICES DIVISION
WAIAKEA RADIO SITE AND TOWER
HILO, HAWAII 96720
HILO, HAWAII
ALTERNATIVE ACCESS PLAN
LO
LO
MK
LO
AS NOTED

Figure 4.1

CULTURAL SURVEYS HAWAI'I
ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL DOCUMENTATION SERVICES SINCE 1982

August 16, 2012

Kauanoe M Hoomanawanui
Burial Sites Specialist
State of Hawaii
Department of Land and Natural Resources
Historic Preservation Division
40 Po'okela Street
Hilo, HI 96720
Kauanoe.M.Hoomanawanui@hawaii.gov

O'ahu Island
P.O. Box 1114
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Ph: (808) 262-9972
Fax: (808) 262-4950

Maui Island
1860 Main Street
Wailuku, Hawai'i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Branch Offices:
Hilo, Hawai'i
Kona, Hawai'i
Lāwai, Kaua'i

Subject: Summary of Status of *Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170*

Aloha Kauanoe Hoomanawanui:

I just wanted to take the opportunity to reply to your e-mail of August 6, 2012 to John Sakaguchi, Wilson Okamoto Corporation, and summarize the status of our *Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170.*

This plan addresses a single left human femur identified more than twelve years ago on May 9 2000 under an overhang within a collapsed lava tube located undeveloped land west of Komohana St. and north of Puainako St. Waiākea Ahupua'a , South Hilo. Mr. Kala'au Wahilani (SHPD--Burials Program) and Mr. Marc Smith (SHPD--archaeology branch) were notified immediately. The results of the fieldwork were reported in a Bush et al. Archaeological Inventory Survey accepted by the State Historic Preservation Division in a review letter dated October 4, 2000 (Log No. 26293, Doc No 0010RC03).

Legal Notices regarding this burial were published in the August 2011 *Ka Wai Ola O OHA*, August 12, 20 and 21, 2011 *Star Advertiser* and August 20, 21, & 24 *Hawaii Tribune Herald.* No one followed through to be recognized as a lineal or cultural descendant. The project and the draft Burial Treatment Plan were reviewed by the Hawaii Island Burial Council (HIBC) at their meetings of September 22, 2011 and October 20, 2011.

The preferred option of the Department of Accounting and General Services was and remains preservation in place (passive preservation). This was agreed to in the HIBC meeting of October 20, 2011.

The plan promulgated before the HIBC posited an access road along the south side of parcel 170 to access the project site planned for the southwest corner of the parcel as shown in the following Figure 1. This access road was to have a fence along the northwest side of this access road (with an opening at the west end) to mitigate against any possible project related disturbance. Present plans (see Figure 2) show a

direct access to the project site. This direct access moves the project related disturbance away from the burial and now there is no call for the mitigating fence.

In terms of the Burial Treatment Plan, these changes would only affect two sections:

- Section 1.3 The access driveway along the southern boundary would not be constructed. See present Figure 1 below.
- Section 5.3.1 The fence along the access driveway would not be constructed. The project site fence would remain. See Figure 2 below.

To summarize:

- preservation in place (passive preservation) of the one femur bone is still the intended approach and the HIBC has formally agreed to this,
- There are no recognized lineal or cultural descendants,
- The project has been pulled back, away from the location of the bone and no portion of the project now intrudes within 100 feet of the bone
- The only real change is that now there is no need for the free standing fence segment
- No significant change in access to the bone area is created by the change in access road plans.

We appreciate the opportunity to clarify the presently proposed project's relationship to the SIHP # 50-10-35-22080 bone and burial cave. If anything further is desired please so advise.

Aloha.

David W. Shideler

David Shideler
Cultural Surveys Hawai'i

References Cited

Bush, Anthony R., Matt McDermott, and Hallett H. Hammatt
2000 *Archaeological Inventory Survey of an Approximately 20-Acre Parcel Proposed for the USDA Pacific Basin Agricultural Research Center Located Near the Intersection of Komohana and Puainako Streets, South Hilo, Hawai'i Island (TMK 2-4-01: por. 122),* Cultural Surveys Hawai'i, Kailua HI.

Hammatt Hallett H. and David W. Shideler
2011 *Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170.* Cultural Surveys Hawai'i, Kailua HI.

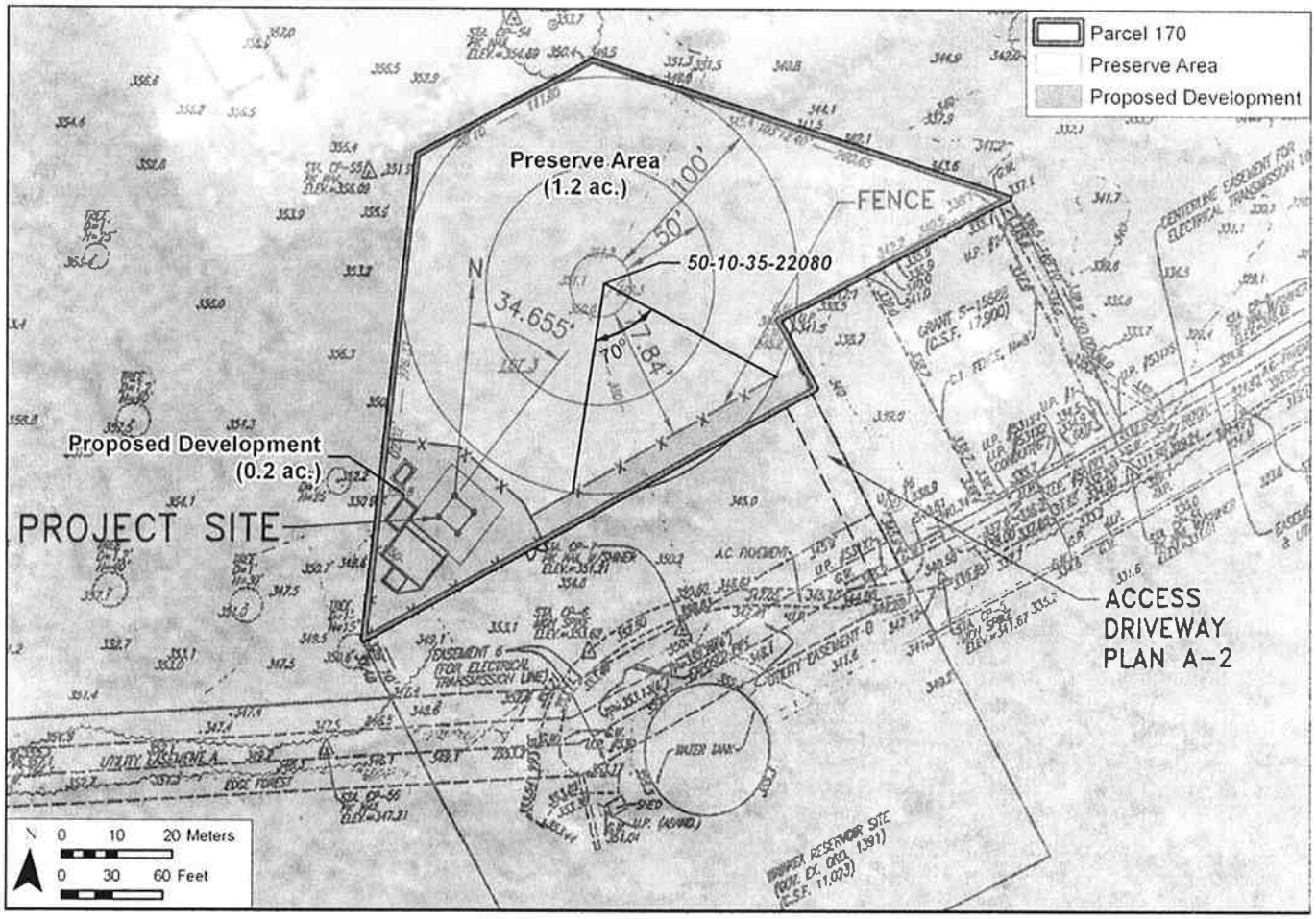

Figure 1. Scheme presented in Burial Treatment Plan reviewed by the Hawai'i Island Burial Council

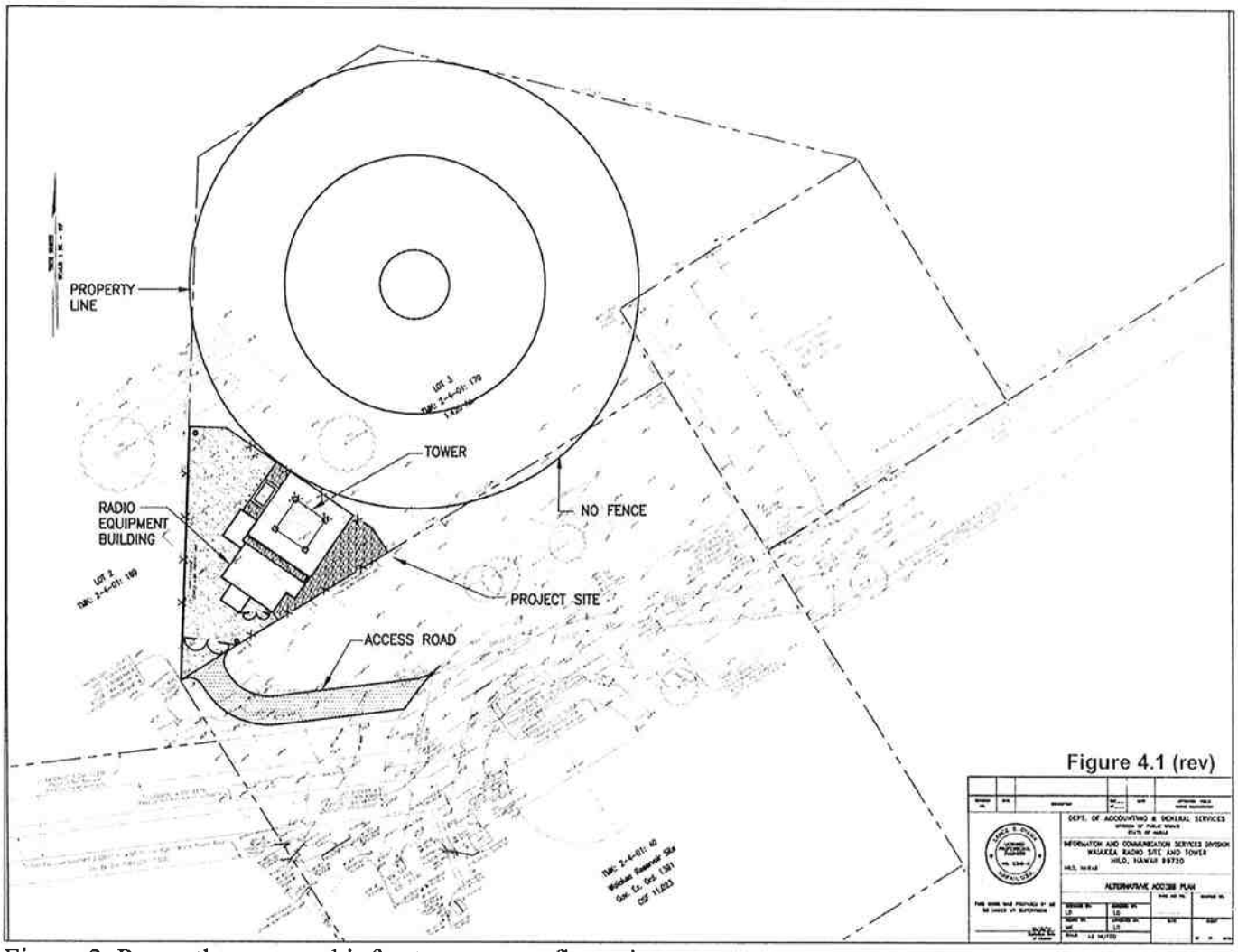

Figure 2. Presently proposed infrastructure configuration

John Sakaguchi

From: Kauanoe.M.Hoomanawanui@hawaii.gov
Sent: Monday, August 20, 2012 11:08 AM
To: David Shideler
Cc: daniel.jandoc@hawaii.gov; John Sakaguchi
Subject: Re: DAS Tower Waiakea South Hilo Burial Treatment Plan: Please advise
Signed By: There are problems with the signature. Click the signature button for details.
Categories: Filed by Newforma

Aloha E David,

In response to the updated Burial Treatment Plan for A Burial Cave Waiakea, South Hilo, Hawaii Island TMK: (3) 2-4-001:170. I am requesting the following to be presented before the Hawaii Island Burial Council (HIBC) meeting, at your best convience:

- An amended copy of the Burial Treatment Plan (BTP), 10 Copies to be mailed to SHPD Hilo Office.
- BTP to include all the summarized items listed in the subject Summary of Status.
- BTP to include the appropriate maps and clarified changes for the HIBC members.
- Agendized before the HIBC members as an Updated BTP for the subject plan. Requesting a determination.
- Relevant representation at the preferred HIBC meeting as we have them once a month.

At your best convience please send for request to be agendized in concurrence with this solution two weeks prior to scheduled meeting date. Any questions please don't hesitate to contact me..

Ahui Hou,
Kauanoe

Kauanoe M Hoomanawanui
Burial Sites Specialist
State of Hawaii
Department of Land and Natural Resources
Historic Preservation Division
40 Po'okela Street
Hilo, HI 96720

tel: (808) 933-7650
cel: (808) 896-0475
email: Kauanoe.M.Hoomanawanui@hawaii.gov

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From: "David Shideler" <dshideler@culturalsurveys.com>
To: <Kauanoe.M.Hoomanawanui@hawaii.gov>,
Cc: "'John Sakaguchi'" <jsakaguchi@wilsonokamoto.com>, <daniel.jandoc@hawaii.gov>
Date: 08/16/2012 03:38 PM
Subject: DAS Tower Waiakea South Hilo Burial Treatment Plan: Please advise

Aloha Kauanoe Hoomanawanui:

The attached memo summarizes changes made on a Department of Accounting and General services Waiakea South Hilo tower project for which a Burial mTreatment Plan was reviewed by the HIBC. In my perception the main change is that a proposed access driveway has been moved away from the burial (femur bone) still to be preserved in place. In other words, I see it as less impact that previously proposed.

I am not sure we need to go back before the HIBC for a third time but please advise and, if we do need to go back to the HIBC, please advise if you want a revised plan in advance and subsequently a dozen bound copies for SHPD to distribute? *Mahalo* for your *kokua*.

Aloha.

David Shideler
Cultural Surveys Hawai`i
PO Box 1114
Kailua, HI 96734
PH: (808) 262-9972
Fax: (808) 262-4950
dshideler@culturalsurveys.com [attachment "DAGS Tower Waiakea Burial Treatment Plan Summary Letter.pdf" deleted by Kauanoe M Hoomanawanui/DLNR/StateHiUS]

CULTURAL SURVEYS HAWAI'I
ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL DOCUMENTATION SERVICES SINCE 1982

September 25, 2012

Mr. Puna Lerma
C/O P.O.Box 488,
Pāpa'ikou, HI 96781.
Tel. 381-2959

cc. Kauanoe M Hoomanawanui
Burial Sites Specialist, SHPD
40 Po'okela Street
Hilo, HI 96720
Kauanoe.M.Hoomanawanui@hawaii.gov

O'ahu Island
P.O. Box 1114
Kailua, Hawai'i 96734
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Maui Island
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Wailuku, Hawai'i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Branch Offices:
Hilo, Hawai'i
Kona, Hawai'i
Lāwai, Kaua'i

Subject: Further consultation regarding *Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170*

Aloha Mr. Puna Lerma:

Cultural Surveys Hawai'i is following-up on a request by the Hawai'i Island Burial Council to consult with you further regarding our *Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170.* The plans of the Department of Accounting and General Services (DAGS) for this area have changed somewhat and we want to invite any comment you may have regarding minor changes to the *Burial Treatment Plan.*

This plan addresses a single left human femur identified more than twelve years ago on May 9 2000 under an overhang within a collapsed lava tube located undeveloped land west of Komohana St. and north of Puainako St. Waiākea Ahupua'a , South Hilo. Mr. Kala'au Wahilani (SHPD--Burials Program) and Mr. Marc Smith (SHPD--archaeology branch) were notified immediately. The results of the fieldwork were reported in a Bush et al. Archaeological Inventory Survey accepted by the State Historic Preservation Division in a review letter dated October 4, 2000 (Log No. 26293, Doc No 0010RC03).

Legal Notices regarding this burial were published in the August 2011 *Ka Wai Ola O OHA*, August 12, 20 and 21, 2011 *Star Advertiser* and August 20, 21, & 24 *Hawaii Tribune Herald.* No one followed through to be recognized as a lineal or cultural descendant. The project and the draft Burial Treatment Plan were reviewed by the Hawaii Island Burial Council (HIBC) at their meetings of September 22, 2011 and October 20, 2011.

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end) to mitigate against any possible project related disturbance. Present plans (see Figure 2) show a direct access to the project site. This direct access moves the project-related disturbance away from the burial and now there is no call for the mitigating fence.

In terms of the Burial Treatment Plan, these changes would only affect two sections:

- Section 1.3 The access driveway along the southern boundary would not be constructed. See present Figure 1 below.
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To summarize:

- preservation in place (passive preservation) of the one femur bone is still the intended approach and the HIBC has formally agreed to this,
- There are no recognized lineal or cultural descendants,
- The project has been pulled back, away from the location of the bone and no portion of the project now intrudes within 100 feet of the bone
- The only real change is that now there is no need for the free standing fence segment
- No significant change in access to the bone area is created by the change in access road plans.

We appreciate the opportunity to clarify the presently proposed project's relationship to the SIHP # 50-10-35-22080 bone and burial cave. If you have any comment please so advise. My colleague, Aulii Mitchell will be following-up with you.

Aloha.

David Shideler
Cultural Surveys Hawai'i
Tel (808) 262-9972
Fax (808) 262-4950
e-mail dshideler@culturalsurveys.com

References Cited

Bush, Anthony R., Matt McDermott, and Hallett H. Hammatt
2000 *Archaeological Inventory Survey of an Approximately 20-Acre Parcel Proposed for the USDA Pacific Basin Agricultural Research Center Located Near the Intersection of Komohana and Puainako Streets, South Hilo, Hawai'i Island (TMK 2-4-01: por. 122),* Cultural Surveys Hawai'i, Kailua HI.

Hammatt Hallett H. and David W. Shideler
2011 *Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170.* Cultural Surveys Hawai'i, Kailua HI.

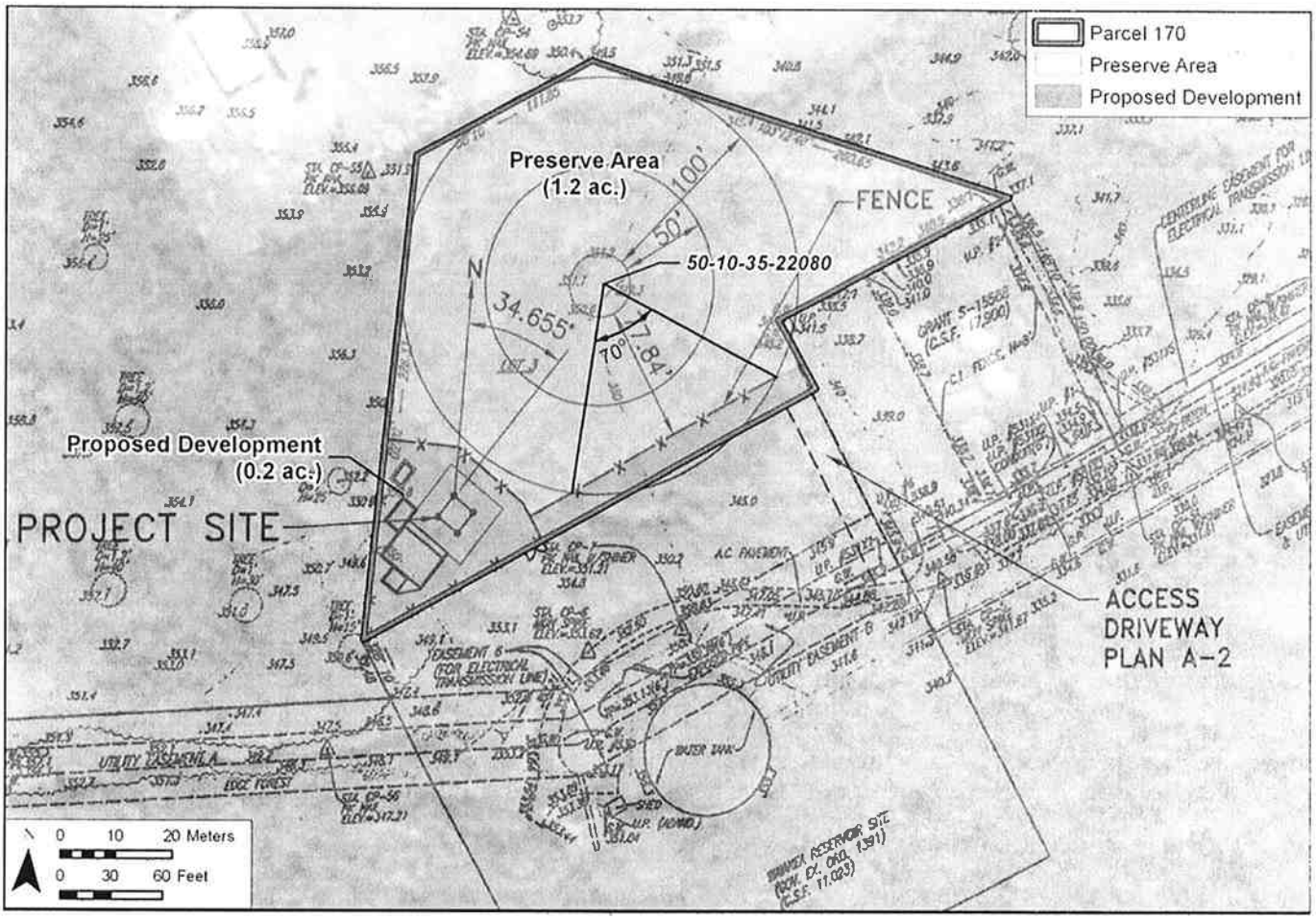

Figure 1. Scheme presented in Burial Treatment Plan reviewed by the Hawai'i Island Burial Council

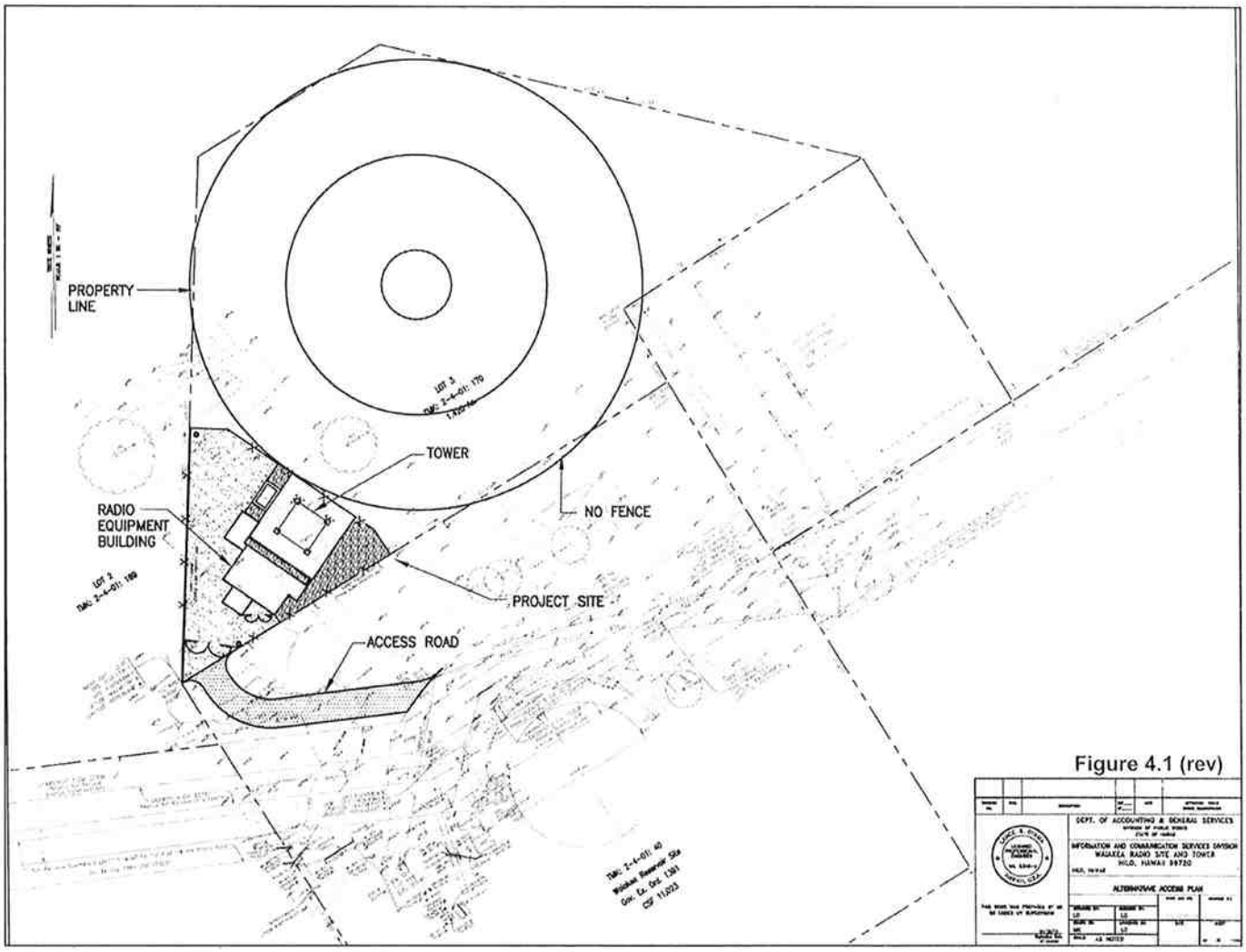

Figure 2. Presently proposed infrastructure configuration

John Sakaguchi

From: David Shideler [dshideler@culturalsurveys.com]
Sent: Monday, October 08, 2012 8:50 AM
To: John Sakaguchi
Subject: FW: Burial Treatment Plan for Komohana Street, Waiakea South Hilo

David Shideler
Cultural Surveys Hawai`i
PO Box 1114
Kailua, HI 96734
PH: (808) 262-9972
Fax: (808) 262-4950
dshideler@culturalsurveys.com

From: Kauanoe.M.Hoomanawanui@hawaii.gov [mailto:Kauanoe.M.Hoomanawanui@hawaii.gov]
Sent: Monday, October 08, 2012 8:07 AM
To: David Shideler
Subject: Re: Burial Treatment Plan for Komohana Street, Waiakea South Hilo

Mahalo,

The department will be mailing a letter of approval for the subject plan, forthcoming.

Ahui Hou,
Kauanoe

Kauanoe M Hoomanawanui
Burial Sites Specialist
State of Hawaii
Department of Land and Natural Resources
Historic Preservation Division
40 Po'okela Street
Hilo, HI 96720

tel: (808) 933-7650
cel: (808) 896-0475
email: Kauanoe.M.Hoomanawanui@hawaii.gov

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From: "David Shideler" <dshideler@culturalsurveys.com>
To: <Kauanoe.M.Hoomanawanui@hawaii.gov>,
Cc: "'John Sakaguchi'" <jsakaguchi@wilsonokamoto.com>
Date: 10/08/2012 07:57 AM
Subject: Burial Treatment Plan for Komohana Street, Waiakea South Hilo

Aloha Kauanoe Hoomanawanui:

As per the request of a HIBC member in the context of a slight revision to our *Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiākea, South Hilo, Hawai'i Island TMK: [3] 2-4-001:170* we sent the attached letter to Mr. Puna Lerma and followed up with him with the results supplied below.

We would hope this matter is now concluded. Please advise if you seek anything else.

Aloha.

David Shideler
Cultural Surveys Hawai`i
PO Box 1114
Kailua, HI 96734
PH: (808) 262-9972
Fax: (808) 262-4950
dshideler@culturalsurveys.com

From: Auli'i Mitchell [mailto:amitchell@culturalsurveys.com]
Sent: Friday, Ocermatober 05, 2012 5:44 PM
To: 'David Shideler'
Cc: 'Hallett Hammatt'; 'Auli'i Mitchell'
Subject: WAIAKEA 6 - BTP for Komohana Street

Aloha e David,

This email is to confirm the most recently proposed mitigation measures concerning the iwi kupuna that lie within the Revised Draft Burial Treatment Plan for SIHP # 50-10-35-22080, a Burial Cave Waiakea, South Hilo, Hawai`i Island TMK: [3] 2-4-001:170.

On Friday, October 5, 2012, Mr. Aulii Mitchell of Cultural Surveys Hawai`i contacted Mr. Lerma via telephone to follow up on a request by the Hawai`i Island Burial Council to consult with Mr. Lerma regarding our Burial Treatment Plan for the burial cave located at Waiakea in Hilo, Hawai`i. It was mentioned at this time that the plans of the Department of Accounting And General Services for this area have changed and we want to invite any comment he may have regarding minor changes to the Burial Treatment Plan. The plan made known before the HIBC for consideration of an access road along the south side of the parcel to access the project site planned for the southwest corner of the parcel. This access road was to have a fence along the northwest side of this access road with an opening at the west end to mitigate against any possible project related disturbance. The present plans show a direct access to the project site and this direct access moves the project related disturbance away from the burial site and now there is no call for the mitigating fence, thus CSH is asking if this satisfies your concerns for the burial to be preserved in place with no fence. Mr. Lerma stated he accepts this plan to re-route the access road so not to cause disturbance of the burial and agrees that now no call for the mitigating fence. Mr. Lerma mentioned he is thankful for HIBC and the archaeologist's concerns on this project and for keeping him updated on the progress.

Aulii Mitchell
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[attachment "Sept 2012 Puna Lerma Follow-up Letter.pdf" deleted by Kauanoe M Hoomanawanui/DLNR/StateHiUS]