DAVID Y. IGE
GOVERNOR

KATHRYN S. MATAYOSHI
SUPERINTENDENT

STATE OF HAWAI`I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

February 23, 2015

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

Re: Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI)
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015

Dear Ms. Wooley:

The State of Hawaii Department of Education is submitting the required documents related to the Draft Environmental Assessment/Anticipated Finding of No Significant Impact (FONSI), for the Waimea Middle School New Eight Classroom Building, DOE Job No. Q12003-07; project in compliance with requirements of Chapter 343, Hawaii Revised Statutes, and Hawaii Administrative Rules, Title 11, Department of Health, Chapter 200. The documents will be submitted by Wilson Okamoto Corporation, our consultant.

A Finding of No Significant Impact (FONSI) is anticipated for this project. The basis for this determination is set forth in Chapter 5 of the Draft EA which follows the significance criteria set forth in Hawaii Administrative Rules, Title 11, State of Hawaii Department of Health Chapter 200, Environmental Impact Statement Rules, Section 12.

Please publish the notice of availability of the Draft EA in the March 8, 2015 issue of the *Environmental Notice*.

Should you have any questions, please call our Project Management Section, Mr. Ronald Hagino, at (808) 586-0434 or Mr. John Sakaguchi of Wilson Okamoto Corporation at (808) 946-2277.

Sincerely,

Robert W. Purdie, Jr.
Acting Public Works Manager

RWP:dw

Attachment

c: Mr. John Sakaguchi, Wilson Okamoto Corporation
Mr. Ronald Hagino, Facilities Development Branch, Project Management Section

AGENCY ACTIONS
SECTION 343-5(B), HRS
PUBLICATION FORM (FEBRUARY 2013 REVISION)

Project Name: Waimea Middle School New Eight Classroom Building
DOE JOB No. Q12003-07

Island: **Hawaii**
District: **Parker Ranch, South Kohala**
TMK: **6-7-002:015**
Permits: **National Pollutant Discharge Elimination System (NPDES) Permit; Individual Wastewater System (IWS) Permit; Underground Injection Control (UIC) Permit; Plan Review Approval; Grading Permit; Building Permit**

Proposing/Determination Agency: **State of Hawaii Department of Education**
1151 Punchbowl Street, Room 431, Honolulu, Hawaii 96813
Ronald Hagino, 808.586.0434
Accepting Authority:
(for EIS submittals only)
Consultant: Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400, Honolulu, Hawaii 96826
John L. Sakaguchi, 808.946.2277

_**x**_DEA-AFNSI	Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov); a 30-day comment period ensues upon publication in the periodic bulletin.
__FEA-FONSI	Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqchawaii@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.
__FEA-EISPN	Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov); a 30-day consultation period ensues upon publication in the periodic bulletin.
__Act 172-12 EISPN	Submit the proposing agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to oeqchawaii@doh.hawaii.gov). NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.
__DEIS	The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqchawaii@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.
__FEIS	The proposing agency simultaneously transmits to both the OEQC and the accepting authority, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may send both the summary and PDF to oeqchawaii@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.
__ Section 11-200-23 Determination	The accepting authority simultaneously transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the proposing agency. No comment period ensues upon publication in the periodic bulletin.
__Section 11-200-27	

Determination	The accepting authority simultaneously transmits its notice to both the proposing agency and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.
__Withdrawal (explain)	

Summary (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page)**:**

Waimea Middle School is part of the Waimea Elementary and Middle School campus located east of Mamalahoa Highway, in an approximately 25.796 acre parcel identified as Tax Map Key: 6-7-002:015. The new eight classroom building project site is located in the southeast portion of the campus, between the Malaai community garden and four existing portable classroom buildings. The portable classrooms are to remain with no changes. Although it was cleared at one time, the project site is currently undeveloped and contains no structures. Vegetation consists of grass cover, similar to other open areas of the campus.

The purpose of the new classroom building is to replace existing science classrooms with modern classrooms and laboratories and to provide spaces designed as computer laboratories. The spaces currently used for these classes are not adequate to meet the teaching needs of the current enrollment. Although identified as 8 classrooms, during the planning process, by downsizing some of the original planned spaces, a total of 9 classrooms are planned for the building. Preliminary plans show a 2-story rectangual building to contain: 1) four general classrooms; 2) three science laboratories; 3) two computer laboratories; 4) one teacher planning room, one office, one student services room, a faculty center, a conference room, and restroom facilities. The building foot-print will be approximately12,659 square feet. The 2-story building will contain about 25,177 square feet and will be approximately 42 feet high at the ridge. The design will be similar to the other buildings on campus. In addition, the one way inbound gravel driveway access from Lindsey Road will be paved. Usage of this driveway will remain with no changes.

Draft Environmental Assessment

Waimea Middle School
New Eight Classroom Building

Waimea, South Kohala District, Hawaii

DOE Job No. Q12003-07

Tax Map Key: 6-7-002:015

Prepared for:

State of Hawaii
Department of Education
Honolulu, Hawaii

Prepared by:

Wilson Okamoto Corporation
Honolulu, Hawaii

Under Contract to:

Architects Pacific Inc.
Honolulu, Hawaii

March 2015

DRAFT
ENVIRONMENTAL ASSESSMENT

State of Hawaii
Department of Education

Waimea Middle School
New Eight Classroom Building

Parker Ranch, South Kohala District, Hawaii

TMK: 6-7-002:015

DOE Job No. Q12003-07

Prepared for:
State of Hawaii
Department of Education
1151 Punchbowl Street
Honolulu, Hawaii 96813

Prepared by:
Wilson Okamoto Corporation
Honolulu, Hawaii 96826
WOC: 7794-10

Under Contract to:
Architects Pacific Inc.
Honolulu, Hawaii 96816

March 2015

SUMMARY

Proposing Agency:	State of Hawaii Department of Education 1151 Punchbowl Street Honolulu, Hawaii 96813
Accepting Agency:	State of Hawaii Department of Education 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:	Waimea, Parker Ranch, South Kohala District, Hawaii
Recorded Fee Owner:	State of Hawaii
Tax Map Key:	6-7-002:015
Area:	70,370 SF (1.62 acres) approximately (project site) 25.796 acres (parcel)
State Land Use Classification:	Urban
County Zoning:	Residential (RS 7.5) Agriculture (A-40a) Project Site
Proposed Action:	Construction of a new eight room 2-story new classroom building with a 1st floor building footprint of about 12,659 square feet, a 20-stall parking lot, and related utilities and infrastructure for the State of Hawaii Department of Education to replace existing science and computer facilities with modern specialized spaces to provide necessary instructional support at the Waimea Middle School.
Impacts:	No significant impacts are anticipated from construction and use of the new eight room classroom building at the Waimea Middle School site.

Agencies Consulted in Draft Assessment:

Federal Agencies
Department of the Army, US Army Engineer District, Honolulu
US Department of the Interior of the Fish and Wildlife Service

State Agencies
Department of Business, Economic Development & Tourism
DBED&T – Strategic Industries Energy Resources and Technology Division
Department of Defense
Department of Hawaiian Home Lands
Department of Health
Department of Health - Environmental Planning Office
Department of Land and Natural Resources
Department of Land and Natural Resources Historic Preservation Division
Department of Land and Natural Resources Historic Preservation Division, Hilo
Department of Land and Natural Resources Historic Preservation Division, Hawaii Island Burial Council
Department of Transportation
Office of Hawaiian Affairs

County of Hawaii
Civil Defense
Department of Environmental Management
Fire Department
Mass Transit
Department of Parks and Recreation
Planning Department
Police Department
Department of Research and Development
Department of Public Works
Department of Water Supply

Officials
Senator Malama Solomon
Representative Mark Nakashima
Councilmember Peter Hoffman

Public Utilities
Hawaii Electric Light Company
Hawaiian Telcom, Hilo office

Organizations
Kona Kohala Chamber of Commerce
South Kohala Traffic Safety Committee
Parker Ranch
Waimea Community Association

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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 Waimea Middle School New Eight Classroom Building will be constructed with funds provided by the State of Hawaii Department of Education (DOE).

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), construction and use of the proposed project is not anticipated to warrant the preparation of an Environmental Impact Statement preparation notice. Further, based on the findings and the assessment of potential impacts from the proposed project, a Finding of No Significant Impact (FONSI) is anticipated.

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1. INTRODUCTION

1.1 Project Background

Waimea Middle Public Conversion Charter School (PCCS) is located in Waimea, (Kamuela), Hawaii, south of Mamalahoa Highway west of the Lindsey Road intersection. Waimea Middle School currently serves approximately 300 students in grades 6 to 8 and is one of 80 middle schools in the Hawaii Department of Education. Charter schools are public schools that operate outside of the traditional public school education system. Charter schools are independent schools operated by educators, parents, community leaders, educational entrepreneurs, or others. Funding for charter schools is based on designated local or state educational organizations that are also responsible for monitoring and assessing the quality and effectiveness of education.

Waimea Middle School is part of the Waimea Elementary and Middle School campus and lies within an approximately 25.796 acre parcel identified as Tax Map Key: 6-7-002:015. The parcel is used under Executive Order No. 2954. The elementary and middle schools have a total enrollment of approximately 900 students.

Waimea Elementary and Middle School dates to 1915 when the school consisted of a single school building to house students from first to seventh grades. This single building, opened in 1916, was known as Building N and was located in the space currently used as parking lot for the nearby gymnasium. In June 2002, Building N was relocated from the School to the Hawaii Preparatory Academy's lower campus on Kawaihae Road.

1.2 Purpose and Need

The purpose of the new classroom building is to replace the existing science and computer classrooms with modern specialized science laboratories and with spaces designed as computer laboratories. Proper classrooms for these subjects are critical to meet the educational requirements of middle school students. The new classroom building will also provide necessary instructional support spaces, including a faculty center, a teaching planning space, a conference room, and an office to support the Middle School. Also, given its siting, the new classroom building will be integrated with the current uses which occur in the adjacent Maalai Community Garden.

The new classroom building is intended to accommodate the current and expected student enrollment and personnel staff. Waimea Middle School does not expect an increase in student enrollment or the number of staff personnel as a result of the new classroom building.

1.3 Project Location and Conditions

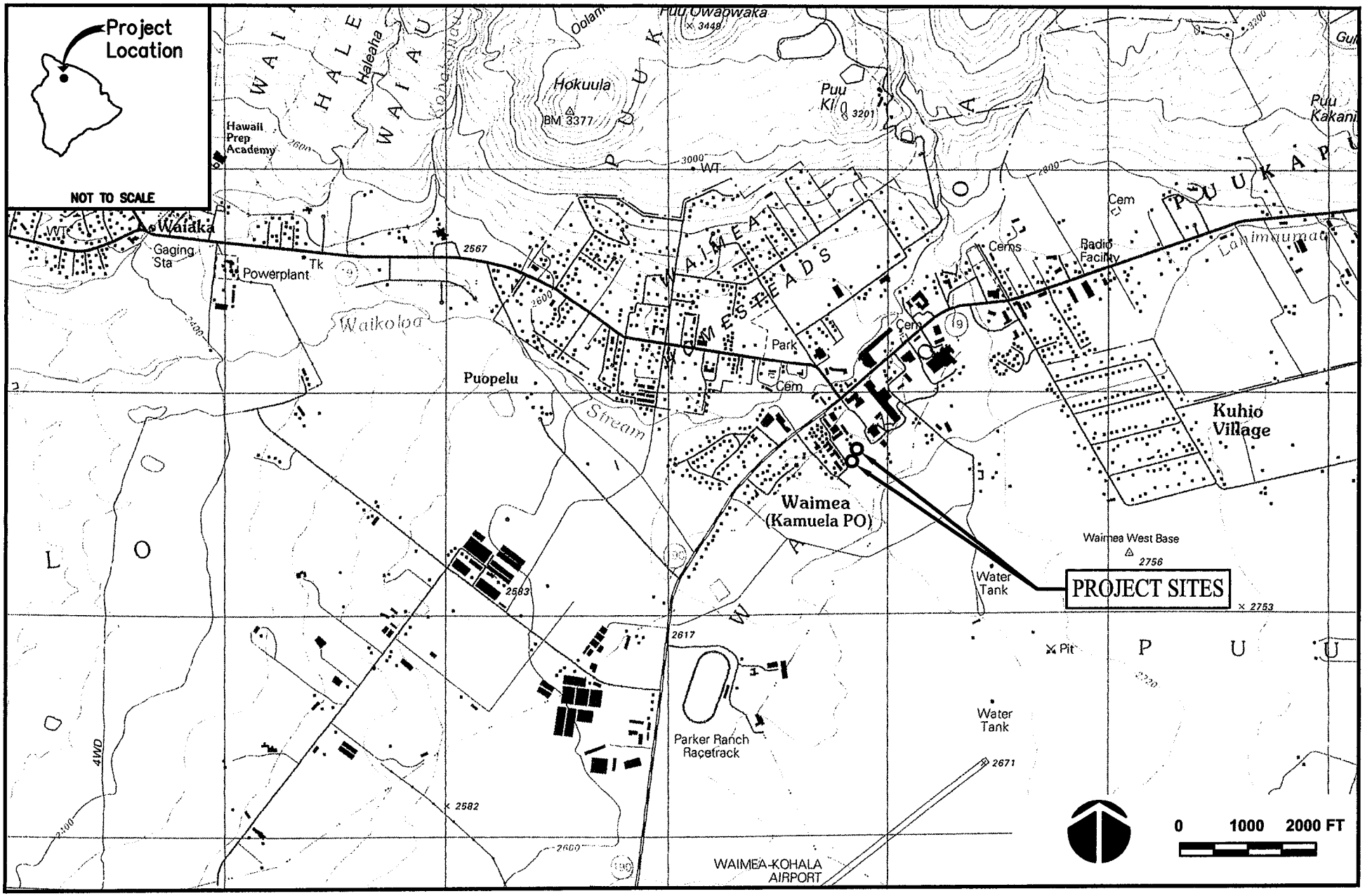
1.3.1 Project Location

Waimea Elementary and Middle School is located at 67-1225 Mamalahoa Highway in Waimea, South Kohala District, in the northwestern portion of the island of Hawaii. The school is located adjacent to the south side of Mamalahoa Highway (State Route 190) about 750 feet (0.16 miles) west of the Lindsey Road-Mamalahoa Highway intersection. Figure 1.1 shows the project location map. Figure 1.2 shows the project site map. Figure 1.3 shows the tax map. Figure 1.4 shows project site photographs.

The new eight classroom building project site is located in the southeast portion of the campus, between the Malaai community garden and four existing portable classroom buildings. The portable classrooms are to remain with no changes. In addition, use of the one-way inbound access driveway from Lindsey Road will remain with no changes as to its use. Although it was cleared at one time, the project site is a currently undeveloped open grassy area and contains no structures. Vegetation consists of grass cover, similar to other open areas of the campus. An existing drainage inlet will be integrated into the design of the drainage system for the new classroom building.

1.3.2 Existing Project Site Conditions

In addition to being undeveloped, the project site was selected to minimize the walking distance between the new building and the other classroom buildings on the campus. Further, the new classroom building project site was selected to minimize disruption to the residential community located along the southern border of the school parcel. The project site and surrounding areas also show little gradient change, which would minimize construction costs.



Waimea Middle School New Eight Classroom Building
PROJECT NO. Q12003-07

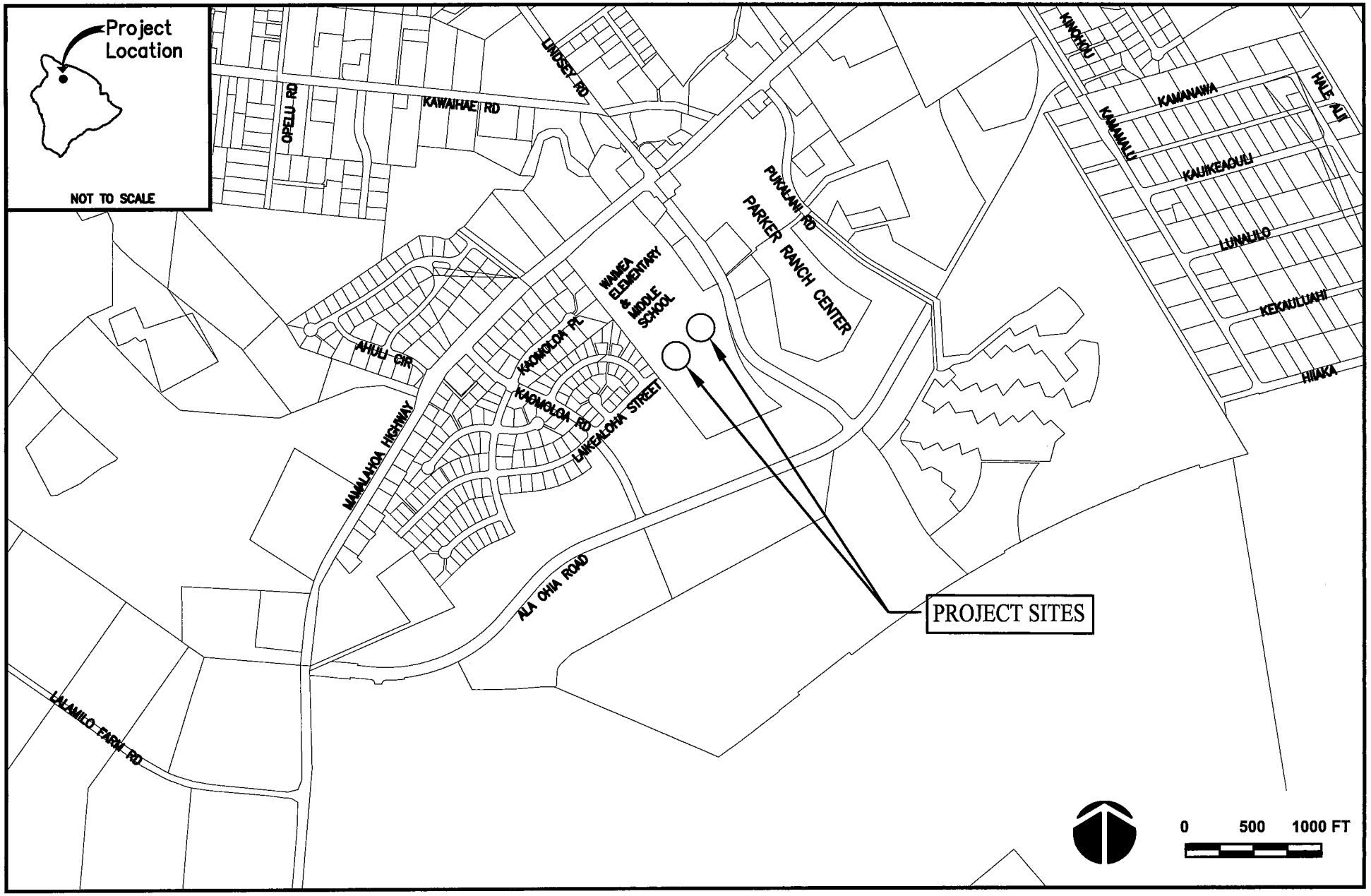
Figure No.

Project Location Map

1.1

WILSON OKAMOTO CORPORATION

Path: M:\WOA\7794-01 wai mid sch\figu Filename: Waimea MS Location Map Plot date: Feb 23, 2015-05:06:09pm CAD User: jsakaguchi. Xref Filename: I bor02_letter-landscape I Waimea_Parcels I



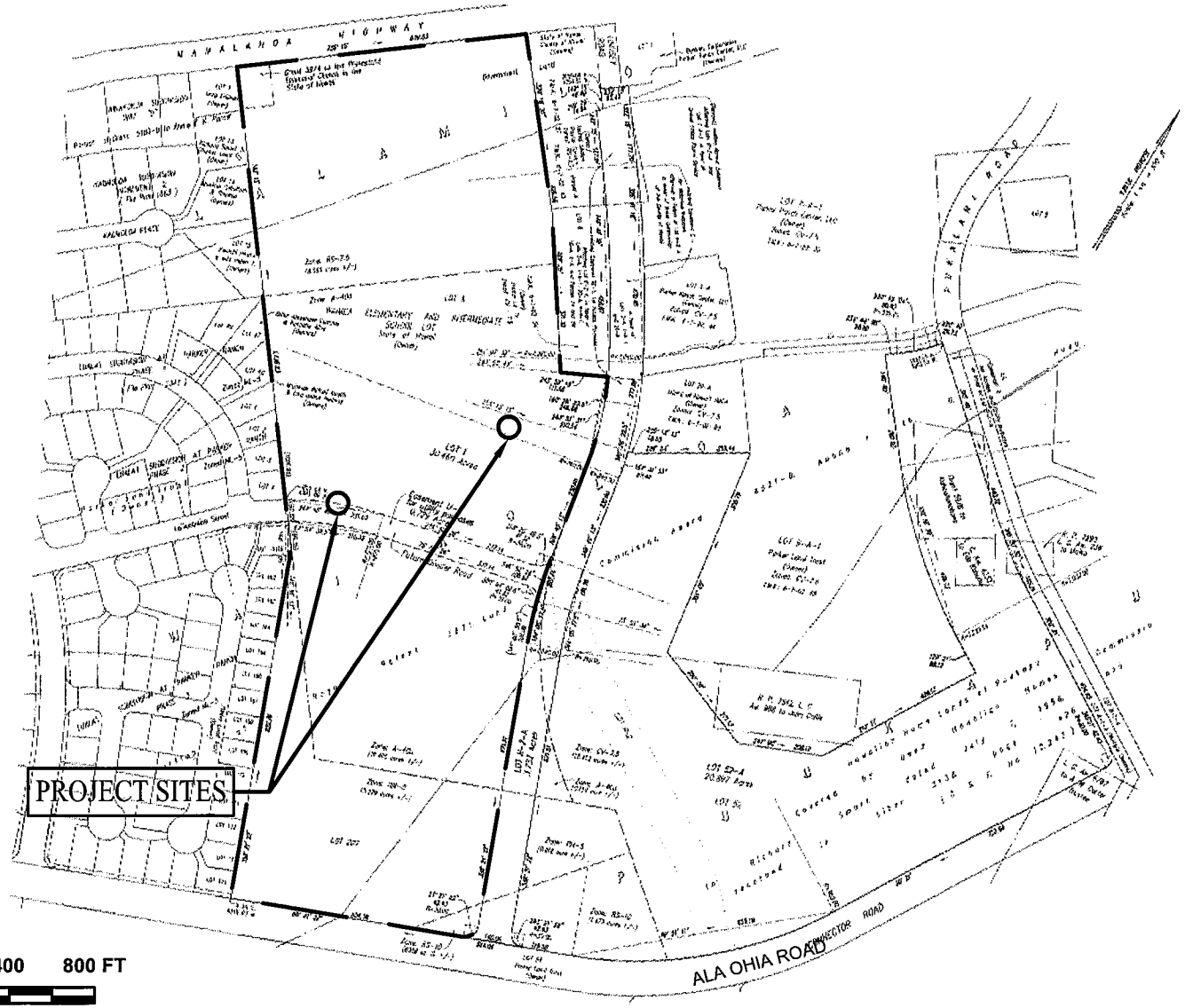
Waimea Middle School New Eight Classroom Building
PROJECT NO. Q12003-07

Project Site Map

Figure No.

1.2

WILSON OKAMOTO CORPORATION



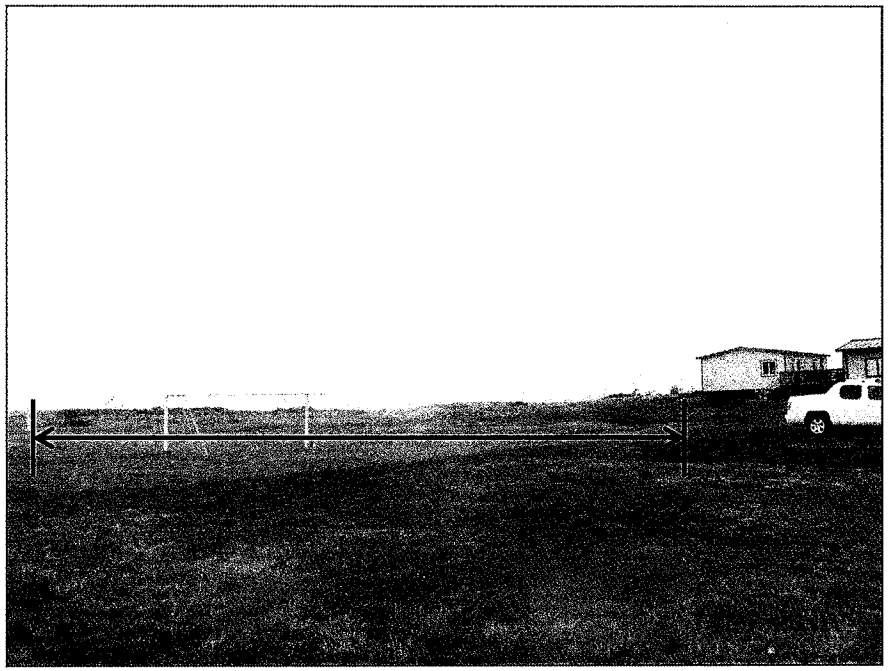
WILSON OKAMOTO CORPORATION

Waimea Middle School New Eight Classroom Building
PROJECT NO. Q12003-07

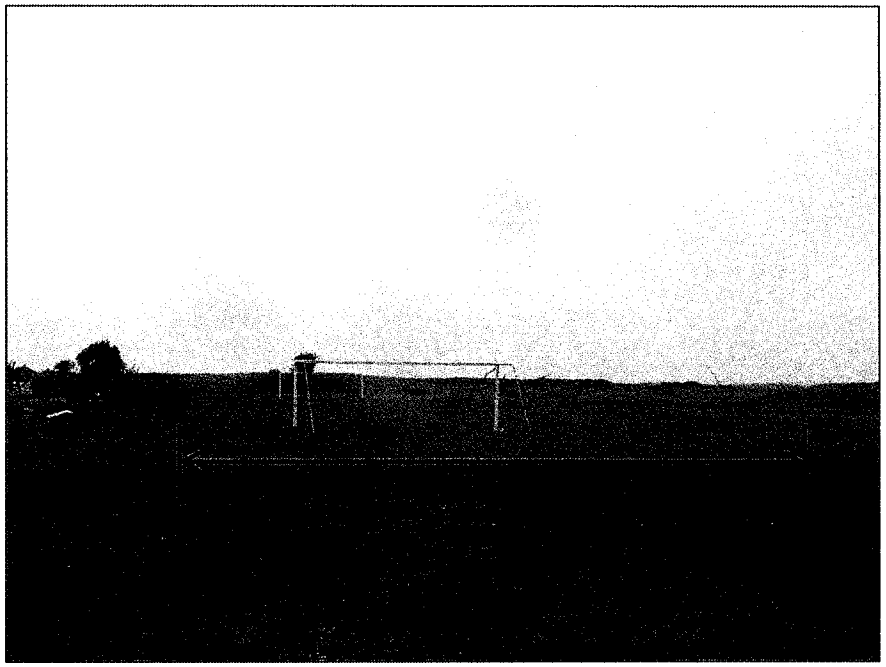
Project T.M.K.

Figure No.

1.3

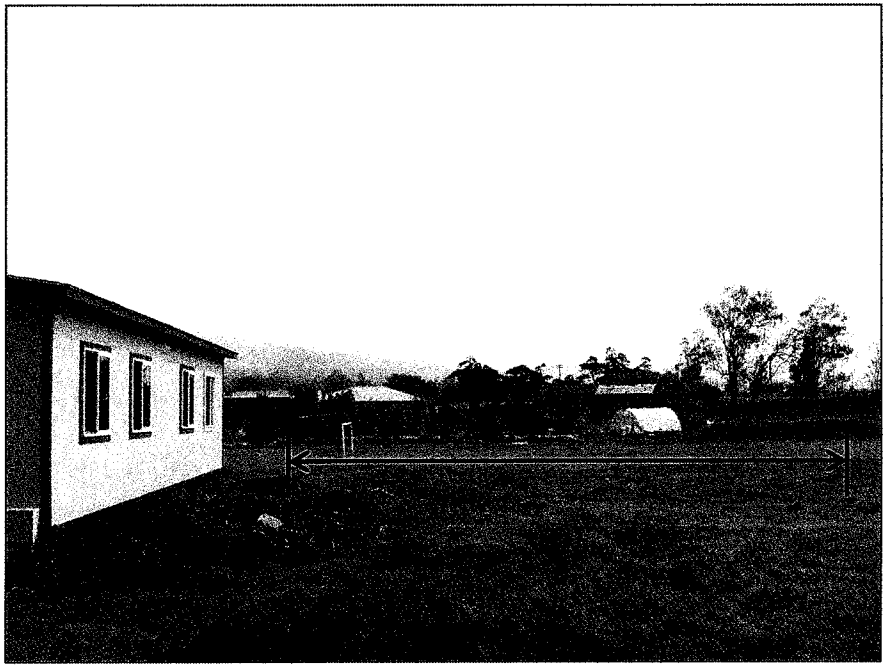


Project site looking west



Project site looking south

Project site looking north



Project site looking east

FIGURE 1.4 Project Site Photographs

1.3.3 Other Project Site Data

The State Land Use Commission designates the School parcel in the Urban District.

The County of Hawaii General Plan Land Use Map designation for the parcel is split with the portion adjacent to Mamalahoa Highway designated as Medium Density Urban and the remainder as Low Density Urban. The project site is within the Low Density Urban designation.

The County of Hawaii zoning designation for the parcel is also split with about 9.4 acres adjacent to Mamalahoa Highway designated as Residential (RS 7.5) and the remaining 16.4 acres, including the project site, as Agriculture (A-40a) zone.

According to Hawaii County Code 25, Zoning, Section 25-4-11, "public uses, structures, and buildings and community buildings are permitted in any district, provided that the director has issued plan approval for such use." The Waimea Elementary and Middle School is a public facility.

The project site is not located within the County of Hawaii Special Management Area (SMA).

Starting in late 1942 and until 1945, Waimea and surrounding areas were used by the US military as a training area. Over this time period, a total of about 55,000 military personnel were housed in the area surrounding Waimea. Munitions and other live ordnance were used as part of the training. As a result, the school campus and other nearby areas have been included in the Former Waikoloa Maneuver Area by the US Army Corps Engineers. These lands have been identified by the Corps of Engineers for surface and subsurface removal of Munitions and Explosives of Concern.

In 1999, a piece of unexploded ordnance was found in the community garden. The military was notified, and the item was removed with no injuries to any students or school personnel. Subsequently, the Corps of Engineers conducted surface and subsurface investigations of the garden with the result that no other items were found.

In 2012, the Corps of Engineers conducted surface and subsurface investigations of the most areas of the School campus as part of the Former Waikoloa Maneuver Area

project. At that time, a single hand grenade was found in the open area behind or south of the four portable classrooms. The item was removed without incident.

1.4 Project Description

1.4.1 Project Site Plan

The project site will occupy about a total of about 70,370 square feet (1.62 acres) in two separate areas within the School's boundaries. The new classroom building project site, including an adjacent septic tank and leachfield, will occupy an area of about 55,780 square feet (1.28 acres) and lies at an elevation of about 2,668 feet mean sea level (msl) within the existing campus. The project site is currently an open grassy area that contains no existing structures. In addition, to meet County of Hawaii code requirements, a 20-stall parking lot occupying about 14,550 square feet (0.34 acres) will also be constructed in a currently vacant area near the southern boundary of the School parcel. Parking for one accessible stall and one loading zone will be provided adjacent to the new classroom building.

The new eight room two-story classroom building project site is located in southeast portion of the campus, between the Malaai community garden and the four existing portable classroom buildings, and east of the existing gravel access driveway. The new classroom building project site will have driveway connection to the existing gravel access driveway, which will be paved as part of the project. Use of the existing access driveway will remain with no changes.

(Note, although identified as eight classrooms, during the planning process, by reducing the sizes of some of the original planned spaces, a total of nine classrooms are planned for the building. However, since the original project documentation was identified as eight classrooms, the project title for eight classrooms will be retained.)

The 2-story building will contain a total of about 25,177 square feet and will be approximately 175 feet long by 82 feet wide and 42 feet high at the ridge. The 1st floor building foot-print will be approximately 12,659 square feet and the 2nd floor about 12,518 square feet. The building will be equipped with a fire protection system. A walkway will connect the building to the remainder of the campus. In addition, a small circular concrete pad will be constructed on the east side of the building for use as an outdoor classroom for teaching purposes related to the Malaai community garden. The

space will consist of a seating area shaded by a decorative trellis similar to an amphitheater. The concrete pad and connecting walkway will extend into a vacant portion of the community garden. Figure 1.5 shows the project site plan.

The 2-story classroom building is sited adjacent to the west side of Malaai garden. This building location will not block sunlight onto the garden during the morning hours, or until about 1:00pm. Depending on the time of year, the western portion of the garden would be in shadows staring from around 2:00pm to 3:00pm.

Also, since the prevailing wind would be from the northeast, the new classroom building will not block rainfall onto the garden.

Three grated drainage dry wells located adjacent to the building will be used to collect runoff from the building and the surrounding concrete walkways. These dry wells will be connected to the existing one located on the west side of the new classroom building. The building downspouts used to collect the roof runoff will be connected to drain lines which will be routed to the 20 feet deep dry wells. This system of downspouts, drain lines, and dry well inlets will contain surface runoff so that it does not flow onto the surrounding areas. The grated inlets will collect the runoff so flows do not affect the adjacent Maalai garden.

In addition to the dry wells adjacent to the building, a dry well will collect runoff from the paved access driveway and another from the parking lot. An Underground Injection Control (UIC) permit issued by the Department of Health in accordance with Title 11 Hawaii Administrative Rules Chapter 23 Underground Injection Control will be required for the dry wells, since they are over 8 feet deep.

Since the Waimea area is not serviced by a County-owned wastewater collection, treatment and disposal system, an individual wastewater system approved by the State of Hawaii Department of Health (DOH) under Hawaii Administrative Rules Title 11 Chapter 62 Wastewater Systems will be required for the collection, treatment, and disposal of wastewater from the two science laboratories, restrooms on each floor, and related uses in the new classroom building. The individual wastewater system will consist of a 5,000-gallon septic tank to treat the flows and an adjacent leach field to dispose of the effluent. The sinks in the science laboratories/classrooms will be

connected to a 2,000 gallon acid holding tank which will be periodically be pumped out for disposal at an approved site.

A Fire Department access road is required to extend to within 50 feet of at least one exterior door that can be opened from outside and to provide access to interior of building. The site plan drawings show the distance from existing fire lane to nearest exterior door (gate) exceeds 50 feet. To meet this requirement, a manual wet standpipe riser will be provided at the stairwell closest to the existing fire lane.

The new classroom building will be equipped with an automatic fire sprinkler system to meet the Hawaii County Code requirement that all portions of exterior walls shall be within 300 feet of Fire Department access roads for buildings with fire sprinklers.

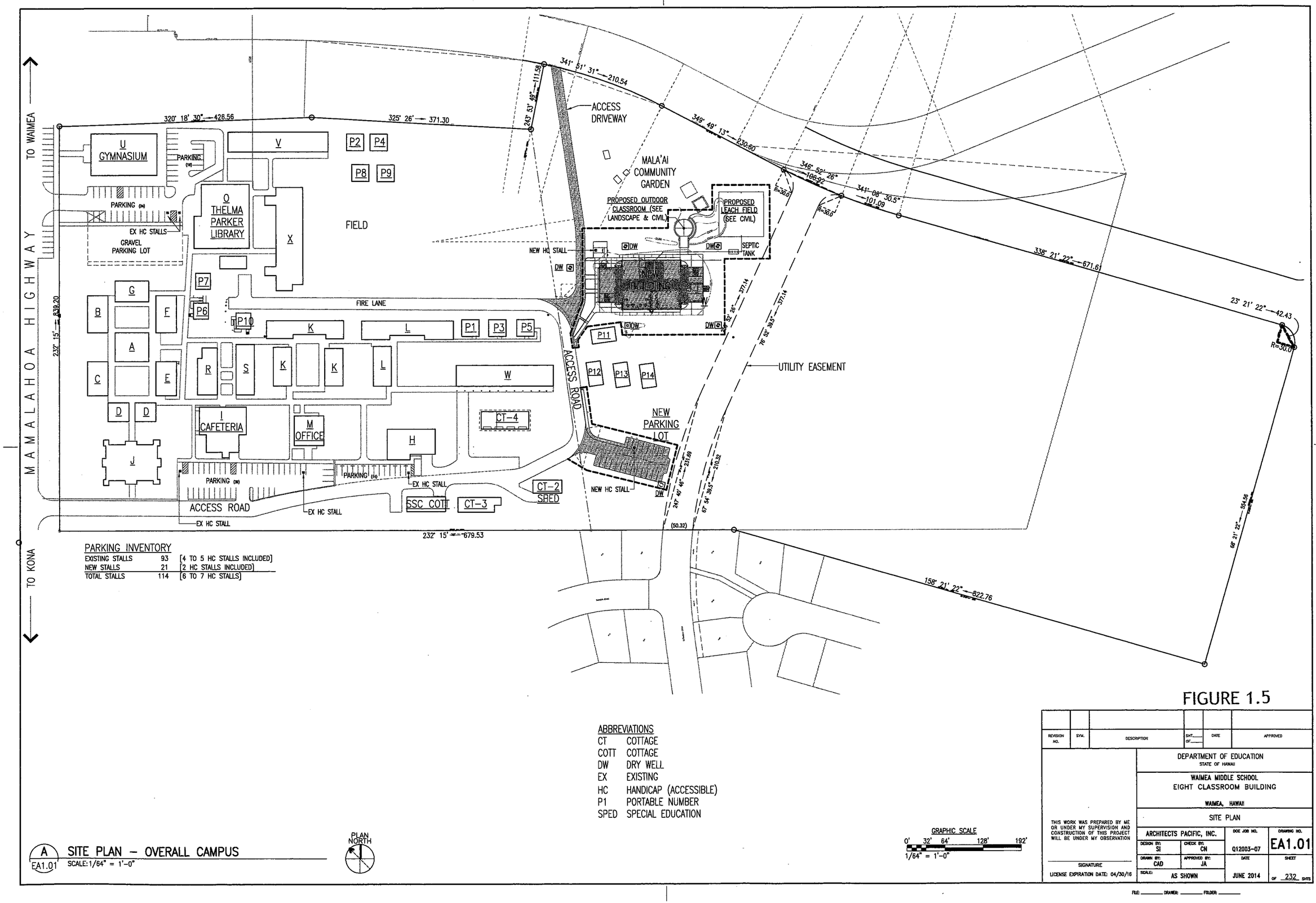
In October 2012, subdivision documents were filed to create a utility easement across the Waimea Middle School parcel. This utility easement is oriented west to east and connects the Lualai Subdivision on the west with the future extension of Lindsey Road on the east and crosses the School parcel just south of the new classroom building. According to the easement documents, the utility easement is approximately 50 feet wide and 375 feet long. The project site plan shows the new classroom building, related facilities, and parking lot is located outside of the utility easement.

1.4.2 Building Plan

Preliminary plans show a 2-story rectangular-shaped building which will contain:

- Four general classrooms;
- Three science laboratories, with a related preparation room on each floor;
- Two computer laboratories;
- One teacher planning room;
- One Student Services Coordinator/Educational Assistant room;
- One office;
- One faculty center;
- One conference room, and
- Toilet facilities on each floor.

The various spaces will be arranged to form a rectangular 2-story building with double-loaded corridors. A clerestory will be on the roof to provide light and ventilation to the



PARKING INVENTORY

EXISTING STALLS	93	[4 TO 5 HC STALLS INCLUDED]
NEW STALLS	21	[2 HC STALLS INCLUDED]
TOTAL STALLS	114	[6 TO 7 HC STALLS]

ABBREVIATIONS

CT	COTTAGE
COTT	COTTAGE
DW	DRY WELL
EX	EXISTING
HC	HANDICAP (ACCESSIBLE)
P1	PORTABLE NUMBER
SPED	SPECIAL EDUCATION

A EA1.01 SITE PLAN – OVERALL CAMPUS
SCALE: 1/64" = 1'-0"

PLAN NORTH

GRAPHIC SCALE
0' 32' 64' 128' 192'
1/64" = 1'-0"

FIGURE 1.5

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED

DEPARTMENT OF EDUCATION
STATE OF HAWAII

WAIMEA MIDDLE SCHOOL
EIGHT CLASSROOM BUILDING
WAIMEA, HAWAII

SITE PLAN

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

SIGNATURE
LICENSE EXPIRATION DATE: 04/30/16

ARCHITECTS PACIFIC, INC.		DOE JOB NO.	DRAWING NO.
DESIGN BY: SI	CHECK BY: CN	012003-07	EA1.01
DRAWN BY: CAD	APPROVED BY: JA	DATE	SHEET
SCALE: AS SHOWN		JUNE 2014	OF 232 SHTS

FILE: DRAWER: FOLDER:

2nd floor, a floor opening at the 2nd floor will allow light and ventilation to the 1st floor. The new classroom building will also include rooms for communication and electrical equipment, storage, and janitorial service rooms. The top of ridge of the new classroom building will be about 42 feet above ground. Figure 1.6 shows the first floor plan and Figure 1.7 the second floor plan. Figure 1.8 shows the building elevation.

(Note, the "L-shaped" building discussed as part of the Pre-assessment consultation was a preliminary conceptual plan, which will no longer be used.)

The building will be secured after-hours with lockable gates at the four building entrances.

The two computer laboratories and two small communication equipment rooms will be the only air conditioned rooms. All other spaces, including the science laboratories and other classrooms, will not be air conditioned. The computer laboratories stations will be planned as clusters. The classrooms will have movable computer stations along the classroom walls. Electrical and data services for the stations will be from power pole drops for each cluster. A minimum of two lockable cabinets will be provided in each computer room. An area will also be set aside to store and charge the laptop carts.

Lockers for students will be located outside the classrooms along the circulation spaces on each floor. The preliminary plans show a total of about 210 lockers will be provided. Also, the circulation spaces will include display/trophy cases and a monitor screen/dashboard that could be used to display announcements, events, and a calendar. Power and data outlets will be located strategically within the circulation space for possible gatherings.

The building will have awning windows to provide naturally ventilated spaces. These types of windows can remain slightly open even during wind-driven rain conditions. Sun shades on the 1st floor will also be used to screen sun for the classrooms. The natural ventilation will be augmented with ceiling fans for the naturally ventilated classrooms. Typically, 6 ceiling fans will be used fans per classroom. Low maintenance and sound absorbing material will be used for the floor finishes in the classroom and laboratories.

The building will be equipped with a roomless machine type elevator which needs only a control room and does not require a separate elevator machine room.

The DOE stated that they now require their new buildings to comply with the Collaborative for High Performance Schools (CHPS) sustainability program. The CHPs program began in November 1999 when the California Energy Commission called together the State's major utility companies to discuss the best way to improve the performance of California's schools. Out of this partnership CHPS grew to include a diverse range of government agencies, various utility companies, school districts, non-profit organizations and private companies, all with a unifying goal: to improve the quality of educational facilities for California's children.

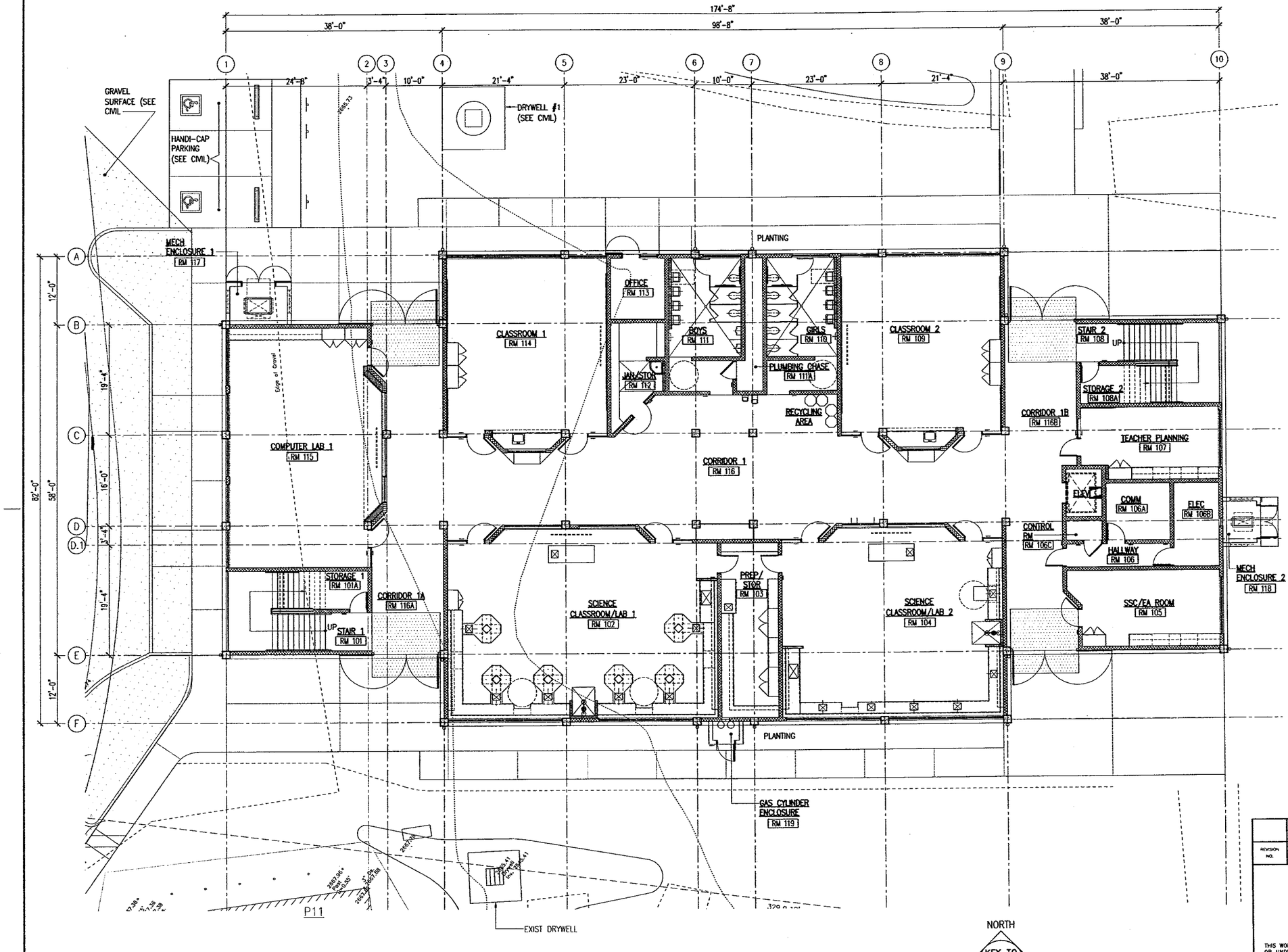
The Hawaii CHPS (HI-CHPS) Criteria was developed to take advantage of the Hawaii climates, school needs, state codes and regulations, and environmental priorities of the region by Hawaii stakeholders. The HI-CHPS criteria explicitly defines a high performance school as one with environments that are healthy, comfortable, energy, resource, and water efficient, safe, secure, adaptable, and easy to operate and maintain. Schools that meet the HI-CHPS Criteria are environmentally sustainable and healthy places of learning that demonstrate that while high performance technologies may be new, they need not be complicated, expensive or unreliable. CHPS schools are saving their school districts money through energy and water utility savings and increasing occupant health and productivity. Sustainable items will be included in the new classroom building and related system to the greatest extent possible.

The new classroom building will be designed with conduits and related spaces to accommodate a photovoltaic system, should the system be installed in the future.

The project will be self-certified according to the CHPS report card.

1.5 Preliminary Cost Estimate

The budgeted construction cost for the new classroom building project is approximately $12.7 million.



A A2.02 OVERALL FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

PLAN NORTH

NORTH
WEST KEY TO EXTERIOR ELEV EAST
SOUTH

GRAPHIC SCALE
0' 4' 8' 16' 24'
1/8" = 1'-0"

FIGURE 1.6

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

SIGNATURE

LICENSE EXPIRATION DATE: 04/30/14

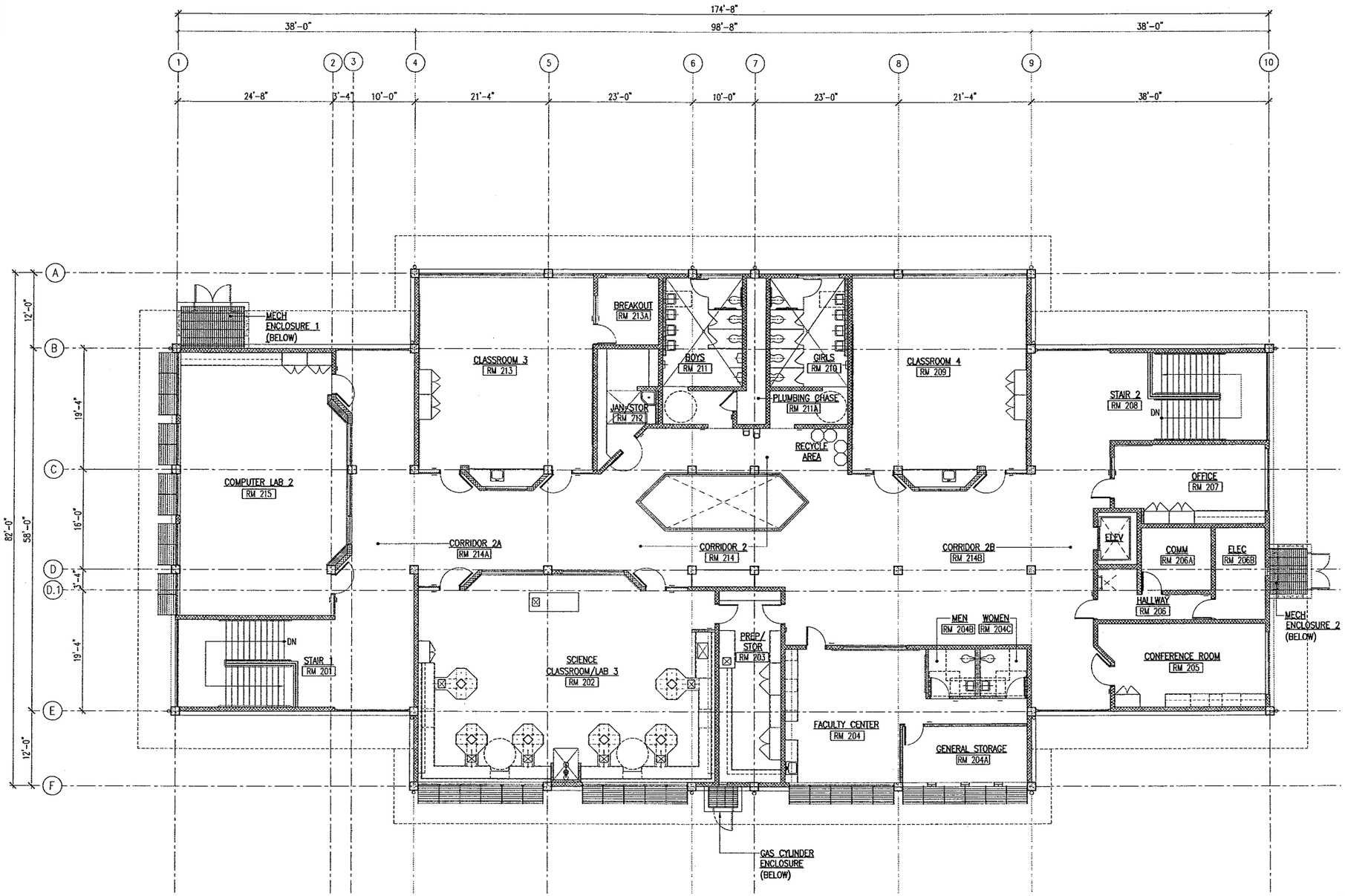
DEPARTMENT OF EDUCATION
STATE OF HAWAII

WAIMEA MIDDLE SCHOOL
EIGHT CLASSROOM BUILDING

WAIMEA, HAWAII

OVERALL FIRST FLOOR PLAN

ARCHITECTS PACIFIC, INC.		DOE JOB NO.	DRAWING NO.
DESIGN BY: SI	CHECK BY: CH	012003-07	A2.02
DRAWN BY: CAD	APPROVED BY: JA	DATE	SHEET
SCALE: AS SHOWN		OCT 2013	OF ____ SHTS



A2.03 OVERALL SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

PLAN NORTH

NORTH
WEST KEY TO EXTERIOR ELEV EAST
SOUTH

GRAPHIC SCALE
0' 4' 8' 16' 24'
1/8" = 1'-0"

FIGURE 1.7

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED

DEPARTMENT OF EDUCATION
STATE OF HAWAII

WAIMEA MIDDLE SCHOOL
EIGHT CLASSROOM BUILDING

WAIMEA, HAWAII

OVERALL SECOND FLOOR PLAN

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SIGNATURE

LICENSE EXPIRATION DATE: 04/30/14

ARCHITECTS PACIFIC, INC.

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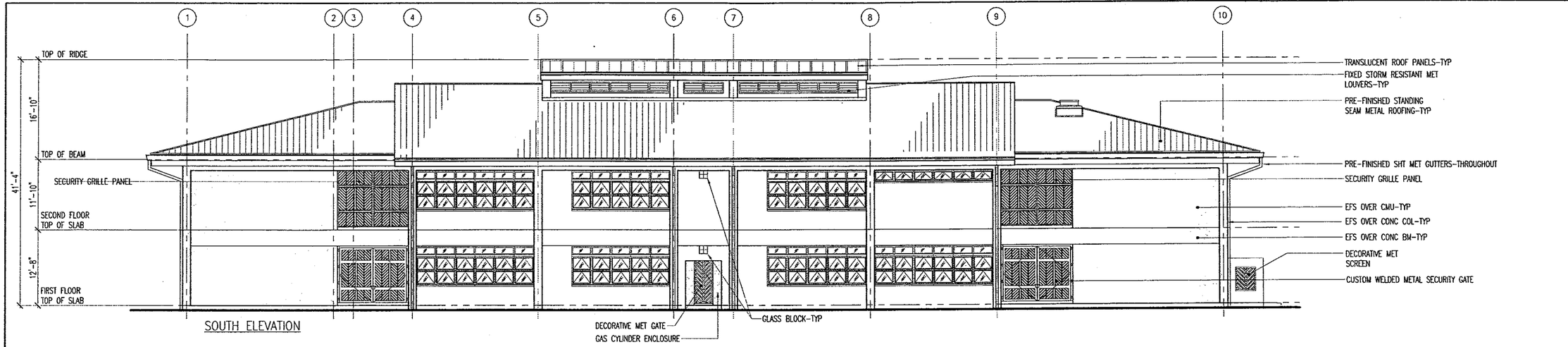
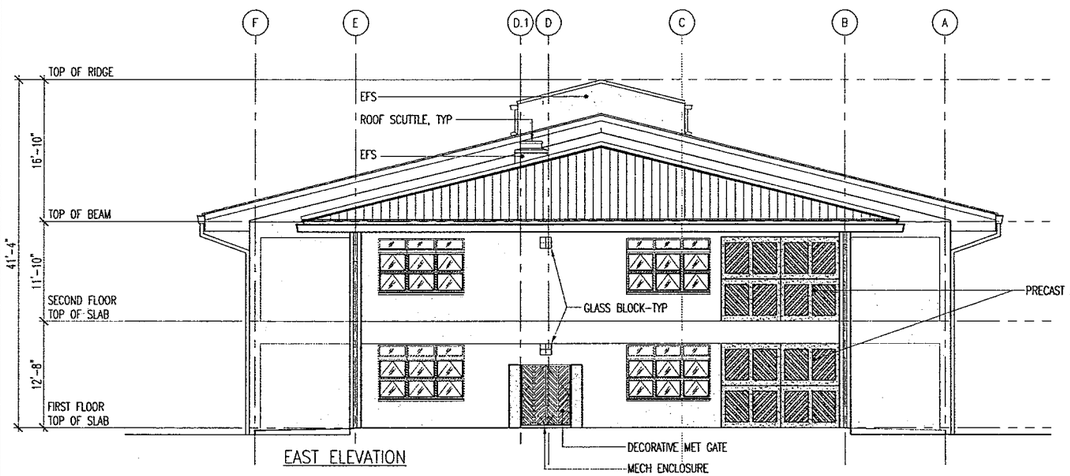
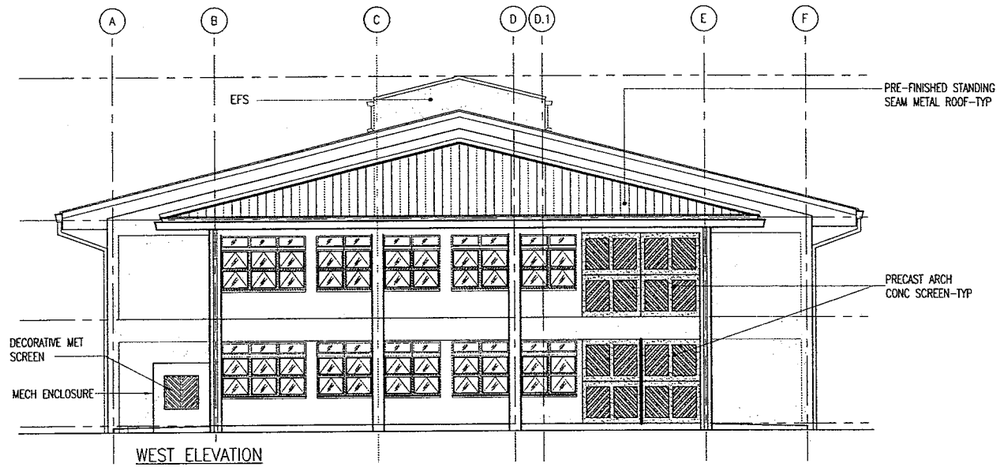
DRAWN BY: CAD	APPROVED BY: JA	DATE	SHEET
SCALE: AS SHOWN		OCT 2013	OF ____ SHTS



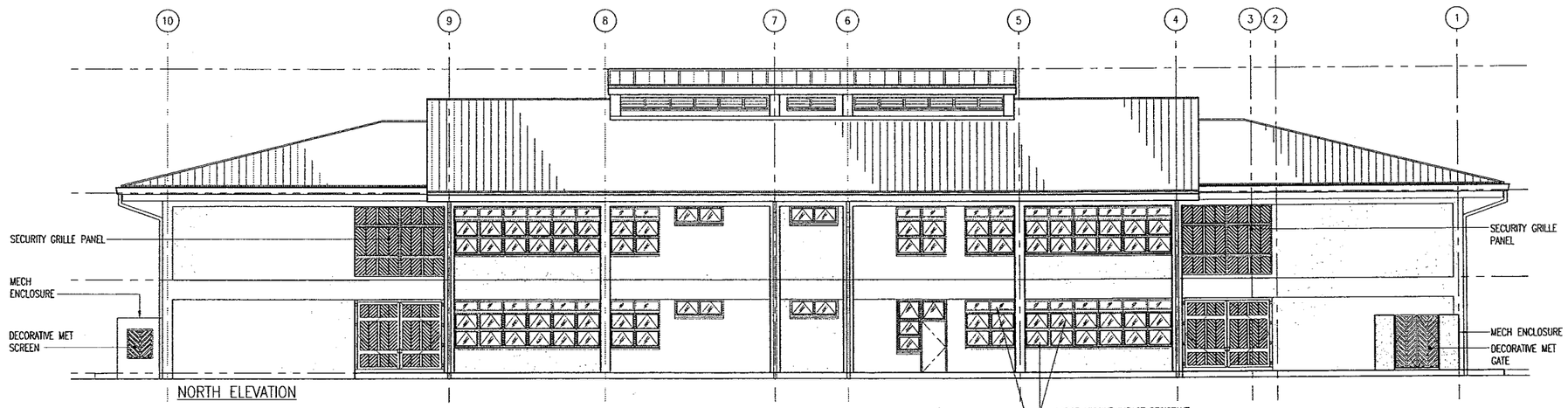
SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION



NORTH ELEVATION

A3.01 — BUILDING EXTERIOR ELEVATIONS

SCALE: 1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8' 16' 24'

1/8" = 1'-0"

FIGURE 1.8

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED

DEPARTMENT OF EDUCATION
STATE OF HAWAII

WAIMEA MIDDLE SCHOOL
EIGHT CLASSROOM BUILDING

WAIMEA, HAWAII

EXTERIOR ELEVATIONS

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SIGNATURE

LICENSE EXPIRATION DATE: 04/30/14

ARCHITECTS PACIFIC, INC.

DESIGN BY:	CHECK BY:	DOE JOB NO.	DRAWING NO.
SI	CN	012003-07	A3.01
DRAWN BY: CAD	APPROVED BY: JA	DATE	SHEET X
SCALE: AS SHOWN		OCT 2013	OF ____ SHTS

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1.6 Project Schedule

Construction is expected to start in second quarter of 2015 and should require about 12 months to complete. The new classroom building should be in use by the third or fourth quarter of 2016.

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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: 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 in a saddle between Kohala and Mauna Kea where Mauna Kea lava flows banked against the older Kohala rocks. Based on available geological information and geomorphological interpretation, the project site is located on Mauna Kea rocks near the surface contact with Kohala. Following the cessation of activity in Kohala and Mauna Kea, activity from the other shields resulted in widespread aerial fall of ash over much of the island. This ash has weathered rapidly into a fine silty soil which is typified by low in-situ densities and high field moisture contents.

The geotechnical borings undertaken as part of the new classroom building design indicate that the project site is generally underlain by volcanic ash over dense clinker and dense basalt formation at relatively greater depths. The thickness of the volcanic ash ranged from about 2 to 6 feet in the borings. The volcanic ash generally consisted of medium stiff to very stiff clayey silts. Clinker materials with varying amount of volcanic ash were encountered to depths of about 13.5 to 16.5 feet below the ground surface. Dense basalt formations were generally encountered below the clinker materials extending to the maximum depth explored of about 21.5 feet below the ground surface. The basalt formations encountered were generally very hard and relatively unweathered.

Groundwater was not encountered in the borings at the time of the geotechnical field exploration. However, groundwater levels likely will change due to seasonal precipitation, surface water runoff, and other factors.

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. 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. This was followed by a 6.6 magnitude quake in the Volcano area on November 16, 1983.

Most recently, on October 15, 2006, a 6.6 magnitude quake was located off the west coast of Hawaii. Reports indicated the earthquake center was about 6 miles southwest of Puako, which is located about 2.5 miles south of the intersection of Kawaihae Road and Queen Kaahumanu Highway. In addition to damage to buildings and structures along the Kona coast, the earthquake left only one lane of traffic open at mile marker 9.5 on Kohala Mountain Road.

The Soil Survey of Island of Hawaii prepared by the US Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service) shows the soils of the project site to be Waimea very fine sandy loam, 6 to 12 percent slopes. This soil is at intermediate elevations on the leeward side of Mauna Kea and the Kohala Mountains. A representative profile has a surface layer about 17 inches thick. This layer consists or dark-brown: and very dark brown very fine sandy loam and loam. The subsoil is dark-brown silt loam about 25 inches thick. It is underlain by weathering, hard basalt bedrock at a depth of about 42 inches. The surface layer is neutral; the subsoil is mildly alkaline. In places the surface is extremely stony. Permeability is moderately rapid, runoff is slow, and the erosion hazard is slight.

2.1.2 Impacts and Mitigation Measures

Construction of the new classroom building will require subsurface excavation for placement of the foundations and footings for the building. This will disturb surface and subsurface soils and displace the soils with on-grade slab foundations below the 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 silt fences 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.

On March 28, 2012, Ordinance No. 12 27 became 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 seismic hazard characteristics in the IBC are based on the seismic zone and proximity of the site to active seismic sources.

The new classroom building 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 new classroom building will 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 new classroom building and related facilities.

2.2 Water Resources and Flood Hazard

2.2.1 Existing Environment

The project site is located on the leeward western slope of Mauna Kea at an elevation of about 2667 feet mean sea level (msl). The US Department of the Interior Geological Survey (USGS) topographic map shows there are no surface water resources on the project site.

Effective December 01, 2005, the Federal Emergency Management Agency issued a Letter of Map Revision (Case No. 05-09-238P). The Letter of Map Revision (LOMR) incorporated a detention basin, construction of weir structures, a dam, and channel improvements and channel relocation along Lanimaumau Stream from Kamamalu Street to approximately 8,200 feet downstream. The LOMR shows the Waimea Middle School parcel is not located within the special flood hazard area.

On January 12, 2012, as part of the Pre-assessment consultation of this Draft EA, the State of Hawaii Department of Land and Natural Resources (DLNR) Engineering Division stated the project site is located in Flood Zone X and that the National Flood Insurance Program does not have any regulations for development in Zone X. (Note, Zone X is defined as minimal risk areas outside the 1-percent and 0.2-percent-annual-chance floodplains. No base flood elevations (BFEs) or base flood depths are shown within these zones.) Appendix A contains the DLNR letter.

The geotechnical investigation indicated groundwater was encountered in the borings at the time of the field exploration. However, groundwater levels likely will change due to seasonal precipitation, surface water runoff, and other factors.

2.2.2 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 US or waters of the State of Hawaii.

Temporary erosion control measures will be used during construction to prevent runoff to nearby areas, including to the adjacent areas on the campus. These mitigation measures will include placement filter fabric rolls and erection of silt fences around the project site to prevent surface runoff into adjacent areas. These measures will contain surface flows within the project site during the construction period.

The 1.28-acre building project site would be cleared and graded to construct the 2-story classroom building, the outdoor classroom, and related facilities. The design drawings show three grated inlets with dry well would be used to contain runoff within the 1.28-acre new classroom building project site. Similarly, the 0.34-acre parking lot project site would be cleared and graded to construct the parking lot. A grated inlet and dry well will also be used to contain runoff from the parking lot. Thus, there would be no adverse effects from surface flows to the surrounding areas at both project sites.

As previously discussed, the new classroom building project site would not be subject to flood hazard from surface water sources. Similarly, the parking lot project site would not be subject to flood hazard from surface water sources.

As part of the geotechnical investigations two field percolation tests were performed at a depth of about 5 feet below the ground surface to aid in the design of the individual

wastewater system. Based on the percolation tests conducted, percolation rates of about 3 and 24 minutes per inch were obtained at the test locations and depths. According to the "Manual of Septic-Tank Practice" prepared by the U.S. Department of Health, Education, and Welfare, the tested location with the percolation rate obtained at the project site would be suitable for the siting of the wastewater disposal system.

The School is located in the critical wastewater disposal area as determined by the Hawaii County Wastewater Advisory Committee. As such, as previously discussed, an individual wastewater system approved by the State of Hawaii Department of Health will be needed for the collection, treatment, and disposal of wastewater from the restrooms on each floor, and related uses in the new classroom building. The individual wastewater system will consist of a 5,000-gallon septic tank to treat the flows and an adjacent leach field to dispose the effluent.

An individual wastewater system approved according to the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems insure that the wastewater treatment and disposal will not have an adverse impact to the groundwater resources in the area.

A National Pollutant Discharge Elimination System (NPDES) permit is required for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, an NPDES general permit coverage can be obtained by submitting a Notice of Intent (NOI) form to cover. storm waters associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. This includes areas used for a construction base yard and the storage of any construction related equipment, material, and waste products. An NPDES permit is required before the start of the construction activities.

A separate NOI form for each type of discharge must be submitted at least 30 calendar days prior to the start of the hydrotesting water discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this

type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities.

All discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11 ·55, may be subject to penalties of $25,000 per day per violation.

The surface flows will be routed to the grated inlets and dry wells near the new classroom building, access driveway, and parking lot. The Department of Health has established an underground injection control program to protect the quality of the underground sources of drinking water from pollution by subsurface disposal of fluids. Title 11 Hawaii Administrative Rules Chapter 23 Underground Injection Control (UIC) sets forth the conditions that govern issuance of a UIC permit, including the location, construction and operation of injection wells to ensure the injected fluids do not migrate and pollute underground sources of drinking water.

Once a UIC permit application has been filed, the Department of Health will publish a public notice of the proposed wells. Once the public notice has been issued, a 30-day period is allowed for interested parties to submit written views with respect to the UIC permit application. Also, interested parties may request a public hearing within the 30-day period. If the Department of Health Director determines there is significant public interest, a public hearing maybe held as part of the UIC permit.

The dry wells related to the project will be designed to meet the requirements of HAR Chapter 23 including siting any injection well beyond a one-quarter (0.25) mile radius from a drinking water source. The design plans show the dry wells will be about 20 feet deep. The State of Hawaii Commission on Water Resources Management (CWRM) maintains information related to groundwater wells used as a source for drinking water. The CWRM maps show there are two wells for the Waimea area, both located to the north of the project dry wells. One water well is located about 5,120 feet (0.97 miles) from the project dry wells and lies at an elevation of 2750 feet mean sea level and the other about 4,800 feet (0.91 miles) and lies at an elevation of 2920 feet mean sea level.

The project site plan shows the floor of the new classroom building is about 2668 feet mean sea level, or about 80 to 250 feet lower than the elevations of the drinking water wells. Thus, based on the lower elevation and the separation distance between the new classroom building project site and the drinking water wells, the dry wells will not have an adverse effect to the drinking water wells serving the Waimea area.

2.3 Agricultural Lands

2.3.1 Existing Conditions

In 1975, the US Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service) initiated a nationwide inventory of important farmlands. When completed, the inventory included three categories "prime", "unique", and "other farmlands of state-wide and local importance". This classification was later adopted by the State of Hawaii Department of Agriculture under the title "Agricultural Lands of Importance to the State of Hawaii" (ALISH).

The ALISH system defines "prime agricultural land" as the best suited for food, forage, and timber crops. "Unique agricultural land" is defined as land other than prime, used for the production of high-value food crops. "Other agricultural land" is defined as land used for the production of food, feed, fiber and forage crops, but not classified as "prime" or "unique".

According to the ALISH system, the project site is classified as "existing urban development", indicating that the lands have been developed for urban type use.

2.3.2 Impacts and Mitigation Measures

The new classroom building and parking lot project sites occupy a total area of about 1.62 acres within the school campus. Since this land has not been identified as agricultural lands, use of the project sites for the new classroom building and parking lot would not adversely affect the agricultural production or the available agricultural land on Hawaii.

2.4 Hazardous Waste

2.4.1 Existing Environment

The project site has been part of the Waimea School campus since 1915, or over for almost 100 years. No structures, buildings, facilities, or underground storage tanks

(USTs) which might contain hazardous materials have been constructed on the new classroom building or parking lot project sites. Fertilizers, pesticides, or herbicides have not been used on these project sites.

2.4.2 Impacts and Mitigation Measures

The new classroom building will contain three science laboratories which will include sinks for use by the students. The sinks will be connected to a 2,000-gallon acid holding tank which will be periodically pumped out. The middle school students will not be handling chemicals or other materials in the science laboratories which will be considered as hazardous.

2.5 Other Hazards

2.5.1 Existing Environment

Starting in late 1942 and until 1945, Waimea and surrounding areas were used by the US military as a training area. Over this time period, a total of about 55,000 military personnel were housed in the area surrounding Waimea. Munitions and other live ordnance were used as part of the training. As a result, the School campus and other nearby areas have been included in the Former Waikoloa Maneuver Area by the US Army Corps Engineers. These lands have been identified by the Corps of Engineers for surface and subsurface removal of Munitions and Explosives of Concern.

In 1999, a piece of unexploded ordnance was found in the Community Garden. The military was notified, and the item was removed with no injuries to any students or school personnel. Subsequently, the Corps of Engineers conducted surface and subsurface investigations of the Garden with the result that no other items were found.

In 2012, the Corps of Engineers conducted surface and subsurface investigations of the most areas of the school campus as part of the Former Waikoloa Maneuver Area project. At that time, a single hand grenade was found in the open area behind or south of the four portable classrooms. The item was removed without incident.

2.5.2 Impacts and Mitigation Measures

Construction of the new classroom building will require excavation for the building footings, foundation, and wastewater leach field, and trenching for placement of the electrical conduits, water, and sewer lines. This subsurface work could result in the

discovery of unexploded ordnance which was not identified as part of the Corps of Engineers investigation.

The project site and related areas will need to be cleared of any unexploded ordnance prior to construction activities to ensure no unexploded ordnance hazard remains in the construction areas. To mitigate the potential hazard from unexploded ordnance during construction, the construction plans and documents will state the construction contractor will need to engage the services of a qualified company to conduct subsurface investigations of the project site and related areas. Clearing the project site and related areas prior to the start of construction activities will ensure there are no adverse effects from the hazard of unexploded ordnance.

2.6 Biological Resources

2.6.1 Existing Environment

Flora

The new classroom building and parking lot are located in an area which was cleared and graded sometime in the past. This clearing and grading would have removed any vegetation which might have been present on the project site. The vegetation on the project site and most of the surrounding area is kikuyu grass, which can be found on other parts of the campus. No listed or candidate threatened or endangered botanical species as set forth by the US Department of the Interior Fish and Wildlife Service (USFWS) are found on the project site. Similarly, no species list as endangered by the State of Hawaii Department of Land and Natural Resources (DLNR) are found on the project site.

Fauna

The project site consists of kikuyu grass, a species which typically does not grow to a height for bird habitat. No trees, which could serve as bird habitat, were found on the project site, although trees can be found throughout and along boundaries of the campus. No listed or candidate threatened or endangered bird species as set forth by the Fish and Wildlife Service are found on the project site. Similarly, no species list as endangered by the State of Hawaii Department of Land and Natural Resources (DLNR) are found on the project site.

Mammalian species which might be present on the project site include rats, dogs and cats typical of those found in semi-urban and rural settings. None of these species would be considered a threatened or endangered species.

2.6.2 Impacts and Mitigation Measures

Flora

Construction of the new classroom building will require removal of the surface vegetation from the project site and grading it for construction of the foundation and building. Removal of the surface vegetation will not create an adverse impact to the flora of this area of the island of Hawaii.

The project site contains no listed or candidate threatened or endangered botanical species as set forth by the USFWS and the DLNR. Thus, construction of the new classroom building will not have an adverse impact to threatened or endangered flora species.

Fauna

The kikuyu grass on the project site does not include habitat normally used by birds. Nor does the kikuyu grass produce seeds which would serve as food for birds. Thus, the project site does not serve as a feeding and foraging habitat to attract birds. Thus, construction of the new classroom building 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.

2.7 Traffic

2.7.1 Existing Environment

Waimea Middle School is located on Mamalahoa Highway (Route 190) south of its intersection with Hawaii Belt Road (Route 19), also called Mamalahoa Highway. In the area of the School, Route 190 is a 22-foot wide 2-lane undivided road with one 11-foot lane in each direction and with grass swale shoulders used for drainage.

The State of Hawaii Department of Transportation (HDOT) conducts vehicle traffic counts on State highways at various locations around the county. Within the vicinity of Waimea Middle School vehicle traffic counts were conducted at the intersection of Mamalahoa Highway and Ahuli Circle located about 0.25 miles west of the School and

on Lindsey Road north of its intersection with Kawaihae Road. This count is located about 0.16 miles east of the School.

In 2011, at Ahuli Circle, the peak morning two-way volume was between 7:30am and 8:30am (647 vehicles) and the afternoon peak was between 3:30pm and 4:30pm (769 vehicles). In comparison, in 2006, the morning two–way peak was 548 vehicles and the afternoon peak was 632 vehicles. The 2011 volumes represent a 3.37 percent annual increase in the morning peak over the 2006 volumes and 4.0 percent annual increase in the afternoon peak.

On Lindsey Road, in 2011, the peak morning two-way volume was between 7:30am and 8:30am (1,233 vehicles) and the afternoon peak was between 3:30pm and 4:30pm (1,448 vehicles). The 2006 figures were 1,221 vehicles in the morning peak and 1,219 vehicles in the afternoon peak. The 2011 volumes represent a 0.2 percent annual increase in the morning volumes and a 3.50 percent annual increase in the afternoon peak.

To alleviate congestion along Mamalahoa Highway at the entrance to the School and at the Lindsey Road/Mamalahoa Highway intersection, in August 2010, the County of Hawaii completed construction of a one-way gravel entry access driveway which connects the School campus to Lindsey Road. The access driveway is designated as one-way inbound in the morning and afternoon and used by both the Elementary and Middle School students. The entry gate is opened at around 7:00am and closed by about 8:30am. In the afternoon the gate is open from 2:15pm to 3:30pm (Wednesday from 1:15pm to 2:30pm). The gate is locked at all other times. At the beginning of the school year, notices are sent to parents regarding use of the entry access driveway and other matters related to student drop off/pick up and parking at the campus.

Vehicles and buses enter through the access drive gate, travel on the access driveway, then onto the existing fire lane, then onto the road near the shop, and exit to Mamalahoa Highway. The student drop off/pick up for parents is designated in the parking lot in front of the cafeteria where school staff are stationed to ensure the safety of the students. The bus drop off/pick up is designated near the shop. Drop off/pick up is not permitted at any other places on campus, including along the access driveway. Families who want to stop and walk younger children to campus are asked to park at the back gate near the Post Office. Also, no students may be dropped off in the parking lot next

to Thelma Parker Gym and Library before 8:00am. Only teachers and school staff will be permitted to enter this parking area. When the access driveway is open, no left turns are permitted from southbound Mamalahoa Highway into the campus.

This one-way entry and the drop off/pick up procedure has mitigated much of the congestion on Mamalahoa Highway which resulted from drivers trying make left turns into the School to drop off/pick up students. Before the access driveway was constructed, the only entrance for student drop off/pick up was from Mamalahoa Highway. Vehicles making the left turn into the campus would cause congestion on the highway. Also, parents would park on the highway shoulders and both the parent and student would cross the highway to reach the campus.

There is contract bus service to the School in the morning and afternoon. The buses are full size (approximately 50 passengers) and make two runs in the morning with drop off at about 7:15am and 7:45am. The contractor uses three buses to service the elementary and middle school.

Typically, more students use the bus service in the morning than in the afternoon. This would be expected as students have various activities in the afternoon. Also, in the afternoon, some students use the free County bus shuttle which services the Waimea town area. The shuttle pick up point is an open area behind the shopping center outside the school boundary.

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 impact will be short-term occurring during the construction period. If required, the contractor will obtain the necessary permits and approvals related to moving equipment and materials to the project site during construction, including those permits required for overweight equipment/loads.

As previously discussed, the purpose of the new classroom building is to replace the existing science and computer classrooms with modern science laboratories and spaces designed as computer laboratories. The new classroom building is intended to accommodate the current and expected student enrollment and personnel staff. Waimea Middle School does not expect an increase in student enrollment or the number of staff personnel as a result of the new classroom building. Based on these

considerations, the new classroom building will not increase cumulative traffic over existing levels.

Further, as previously discussed, the new classroom building project site will have a driveway connection to the existing access driveway. The existing gravel access driveway will be paved to decrease dust. However, there will be no changes as to its use. Since opening in August 2010, the access driveway has provided alternative means of access to the school campus which has reduced congestion on Mamalahoa Highway during the morning when students are dropped off for classes and in the afternoon when students are picked up. Given these conditions, there will be no changes to the Mamalahoa Highway right-of-way near the School and no new landscaping or other improvements.

Since the new classroom building is not expected to increase student enrollment, and since use of the existing access driveway will remain with no changes, the new classroom is not anticipated create adverse impacts to existing traffic conditions on the streets near the School campus.

The South Kohala Community Development Plan (CDP) was adopted by Ordinance 08-159 which was signed by the County of Hawaii Mayor on November 20, 2008. The South Kohala CDP discusses various road improvements plans and projects for the Waimea area. Among these projects includes "Road A" which is described as "an internal connector road that will bisect the Lualai subdivision and the Waimea public school property and connect to the Lindsey Road Extension. The Department of Education is expected to pay for this road."

The South Kohala CDP provides reference to the *Waimea Traffic Circulation Study* issued by the County of Hawaii Planning Department in December 2007. The Traffic Circulation Study indicates that during preparation of the study a meeting was held at the School with the Department of Education to discuss traffic flow and safety near the School. The Traffic Circulation Study states: "a connector roadway between Lindsey Road and the Waimea Schools internal road, referred to as "Road A", would allow for smoother and safer drop off of students at the schools". This description makes no reference to the Lualai subdivision.

Based on the Traffic Circulation Study, the description of Road A would match the one-way access driveway constructed in 2010, which was funded by the County of Hawaii Department of Public Works.

As previously discussed, in October 2012, subdivision documents were filed to create a utility easement across the Waimea Middle School parcel. This utility easement is oriented west to east and connects the Lualai Subdivision on the west with the future extension of Lindsey Road on the east and crosses the School parcel just south of the new classroom building project site. According to the easement documents, the utility easement is approximately 50 feet wide and about 375 feet long. The project site plan shows the new classroom building, related facilities, and parking lot are located outside of the utility easement. Future use of this utility easement for vehicle access purposes is not known.

The Waimea Regional Transit Hub Facility is being considered on adjacent property to the School campus. This project is listed on the Hawaii County Capital Improvement list for funding sometime in the future. This site is not located within the School campus and, as such, it would not affect the number students enrolled at the school.

The future extension of Lindsey Road has been studied dating to the early 1970's. The extension has also been discussed in relation to various governmental approvals for Parker Ranch lands located to the south of the School. Should the Lindsey Road extension be constructed, it would provide an alternative means of access to the School rather than Mamalahoa Highway. Thus, there would be a reduction in congestion at the Mamalahoa Highway entrance to the School.

Waimea Elementary and Middle School is an integral part of the Waimea community. However, off site transportation plans, such as the Waimea Regional Transit Hub and Lindsey Road Extension, are typically developed by the State or County agencies. If such plans have components relevant to the School's students, if requested, the School would be willing to review and comments on such plans. Further, if requested, the School would be willing to participate in the County's Traffic Management Plan.

2.8 Air Quality

2.8.1 Existing Environment

The State of Hawaii Department of Health, Clean Air Branch, publishes an Annual Summary of Air Quality, with the most current version for 2012. This publication states the Clean Ari Branch monitors the ambient air in the State of Hawaii for various gaseous and particulate air pollutants. The U. S. Environmental Protection Agency (EPA) has set national ambient air quality standards (NAAQS) for six criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone, and particulate matter (PM_{10} and $PM_{2.5}$). Hawaii has also established a state ambient air standard for hydrogen sulfide. The primary purpose of the statewide monitoring network is to measure ambient air concentrations of these pollutants and ensure that these air quality standards are met.

Air pollution is caused by many different man-made and natural sources. There are industrial sources of pollution, such as power plants and refineries; mobile sources, such as cars, trucks, and buses; agricultural sources, such as cane burning; and natural sources, such as windblown dust and volcanic activity. The majority of stations are located on the island of Hawaii to measure air quality impacts from the volcano and geothermal energy production. In August 2102, the Waikoloa monitoring station was established near Waikoloa Village. The station is located about 7.5 miles southwest of the School.

The Waikoloa station and the other monitoring stations in communities near the volcano record higher levels of $S0_2$ and $PM_{2.5}$ with regular exceedances of the NAAQS for $S0_2$ and occasional exceedances of the NAAQS for $PM_{2.5}$. 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. Excluding the exceedances due to the volcano, in 2012, the State of Hawaii was in attainment of all NAAQS.

The project site is located in the South Kohala District, an area characterized by low level of residential and commercial development and almost no industrial facilities. A low level of development generally indicates an absence of stationary and mobile sources of emissions which could affect ambient air quality.

2.8.2 Impacts and Mitigation Measures

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, as shown in Section 11-60.1-33. Typically, the contractor must maintain the areas within and without the project limits free from dust which would cause hazards to the work and to other persons or property. The contractor will use accepted methods for dust control such as enclosures 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. The drawings also show a dust screen around the project site to minimize effects to surrounding areas.

Once construction has been completed, vehicle traffic related to student drop off/pick up will remain at about current levels. Thus, new classroom building will not increase vehicle emissions over current levels. This low level of vehicle activity will not adversely affect air quality in the area.

2.9 Noise

2.9.1 Existing Environment

The project site is located in the developed area of Waimea near the intersection of Mamalahoa Highway and Lindsey Road and the Parker Ranch Center. Lands to the south of School are primarily residential, with smaller areas developed for office-type uses. The Parker Ranch Center serves as the main commercial/retail area for Waimea. The area lacks other major stationary noise sources.

Vehicle traffic on Mamalohoa Highway would be the primary source of noise near the project site. Noise generated by vehicle traffic would primarily occur during morning and afternoon peak periods, with relatively lower traffic volumes during the remaining periods.

Noise generated by the School would be confined to times when the students are not in the classrooms, such as before and after class periods, at lunch times, or at breaks between classes. This noise would be confined to within the School grounds.

2.9.2 Impacts and Mitigation Measures

Construction activities such as grading, excavating for footings and foundations, and erecting the building 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 these activities will be short-term during the period of construction. Once construction has been completed, the noise impact will no longer occur.

Once construction has been completed, noise will be generated by vehicles used by to drop off/pick up students. Since the new classroom building is not expected to result in an increase in the number of students, the noise levels at the School and surrounding streets will not be higher than current levels. Thus, the new classroom building should not create an adverse effect to the noise environment in the area of the project site.

2.10 Archaeological and Cultural Resources

2.10.1 Existing Environment

In June 2014, an archaeological inventory survey was completed for the new classroom building project site and related adjacent septic tank and leachfield area. To ensure complete coverage, the archaeological survey covered an area of approximately 5.2 acres, including the new classroom building project site. The objective of the survey was to satisfy historic preservation regulatory review requirements of the Department of Land and Natural Resources-Historic Preservation Division (DLNR-SHPD), as contained within Hawaii Administrative Rules, Title 13, DLNR, Subtitle 13, State Historic Preservation Rules (2003).

The archaeological survey of the project area identified a curvilinear depression interpreted as a possible section of an historic irrigation ditch or auwai. Portions of this depression roughly correspond to a ditch depicted on a 1915 map of the area; however, the curved depression is atypical of historic irrigation ditches and cannot be correlated with certainty to a known ditch. The ditch is interpreted as a possible feature of Site 9179; a site complex that includes an extensive late prehistoric to early historic dendritic

auwai system crossing this portion of Waimea. Appendix B contains the archaeological inventory survey report.

Subsurface testing was conducted as part of the archaeological inventory survey. The subsurface testing consisted of excavation of five backhoe trenches, situated within and adjacent to the footprint of the proposed new classroom building. These excavations revealed similar soil stratigraphy with from two to three layers of culturally sterile soil with no cultural remains present. One trench was excavated across the reported path of an historic ditch; however, no evidence of this ditch was found during the trenching.

The portions of the possible *auwai* identified in the project area are assessed as significant for information content. The mapping, written descriptions and photography adequately document the site and no further work or preservation is recommended.

2.10.2 Impacts and Mitigation Measures

Excavation and trenching activities will be required for the construction of the foundations and footings for the new classroom building, the septic tank and leachfield. Based on the findings of the archaeological survey, including the subsurface testing, and completed documentation, the construction of the new classroom building and related improvements will not have an adverse effect on archaeological resources at the project site. The archaeological inventory survey found no further work or preservation is necessary.

2.11 Infrastructure

2.11.1 Water

Existing Conditions

Waimea Middle School is served by the County of Hawaii Department of Water Supply system. The new classroom building will require potable water services for domestic uses and for fire protection.

Impacts and Mitigation Measures

In January 23, 2012, as part of the Pre-Assessment consultation, the County of Hawaii Department of Water Supply (DWS) indicated water is available from an existing 12-inch waterline within Mamalahoa Highway fronting the School parcel. Prior to issuing a water

commitment for the proposed project, the DWS will request estimated maximum daily water usage calculations, prepared by a professional engineer licensed in the State of Hawai'i, for review and approval. After review of the calculations, the DWS will determine if the existing meter(s) serving Waimea Middle School is adequate to support the additional water demand or if a larger or additional meter will be required. Should the water demand for the new classroom building exceed the original water allocation for the school, additional facilities charges may also apply. See Appendix A.

Further, the DWS stated, the existing 12-inch waterline within Mamalahoa Highway is adequate to provide 2,000 gallons per minute for fire protection, as required per the Department's Water System Standards for schools. See Appendix A.

Any meter(s) serving the proposed project will require the installation of a reduced principle type backflow prevention assembly within five feet of the meter on private property. The DWS must inspect and approve the installation prior to commencement of water service. Construction plans showing the proposed water system improvements must also be submitted to the DWS for review and approval.

Based on the number of plumbing fixtures, the new classroom building will have a water demand of about 1,200 to 1,600 gallons per day, excluding use for irrigation of adjacent landscape areas and the community garden. Given the estimated water demand and the availability of water from the DWS system, the new classroom building is not expected to create an adverse impact to potable resources.

2.11.2 Sewer

Existing Conditions

The Waimea area is not serviced by a County of Hawaii wastewater collection system or a treatment and effluent disposal system. The existing campus is currently serviced by a series of septic tanks and seepage pits which are used to treat and dispose the treated wastewater effluent.

Impacts and Mitigation Measures

The new classroom building will include student restrooms on the 1st and 2nd floors. In addition, the faculty center will have restrooms. The science laboratories will also have sinks within the classrooms. Based on the number of students, staff, and fixtures, the new classroom building will have wastewater flows of about 4,000 gallons per day.

A septic tank will be used to treat the wastewater flows from the new classroom building before the treated effluent is discharged to the leachfield. As previously discussed, an individual wastewater system approved by the State of Hawaii Department of Health (DOH) under Hawaii Administrative Rules Title 11 Chapter 62 Wastewater Systems will be required for the collection, treatment, and disposal of wastewater from the restrooms on each floor, and related uses in the new classroom building. The individual wastewater system will consist of a 5,000-gallon septic tank to treat the flows and an adjacent leach field to dispose of the effluent.

One of the purposes of Hawaii Administrative Rules Title 11 Chapter 62 is to ensure that the use and disposal of wastewater from wastewater systems do not contaminate or pollute any drinking water or potential drinking water supply. The drawings and plans for the new classroom building will be submitted DOH for review and approval. Construction and use of the individual wastewater system will ensure the on-site treatment and disposal of wastewater will not have an adverse effect on underground drinking water sources.

2.11.3 Electrical

Existing Conditions

Hawaii Electrical Light Company (HELCO) provides commercial electrical power to the South Kohala area, including Waimea. Electrical service to the School is provided from a HELCO pole located along Mamalahoa Highway. Service from the pole is routed to a pad mounted transformer and other distribution equipment located along the southern boundary of the School. Service is provided to the classrooms and other buildings via existing underground lines.

Impacts and Mitigation Measures

Electrical service to the new classroom building will be provided via an underground system constructed along the existing service road/fire access lane located near the shops. From there, the underground lines will be routed south of the four portable classrooms to the 1st floor electrical room. From there, electrical service will be routed to the 1st floor classrooms and to the 2nd floor electrical room. Panels in the electrical rooms will distribute the electrical services as needed.

The electrical demand for the new classroom building will not create adverse effects to the HELCO electrical system

At this time, a photovoltaic or solar systems are not included in the new classroom building design drawings. However, conduits will be included in the design plans and space in the two electrical rooms has been designated for future use by photovoltaic or solar systems. In addition to the electrical systems, the structural components of the new classroom building have been designed to accommodate these systems should one of them be implemented at a future date.

2.12 Visual Considerations

2.12.1 Existing Conditions

Land uses in Waimea are in a generally linear pattern from east to west along both sides of Mamalahoa Highway and Kawaihae Road. Development along these two roadways is spread out over six miles with the town center approximately at the mid point of this stretch. Important developments along the highway include North Hawaii Community Hospital, Waimea Town Center, and facilities related to the W.M. Keck Observatory.

Most of the commercial development is concentrated in and around the Waimea Town Center, at the intersection of Mamalahoa Highway and Kawaihae Road. The two main shopping centers include supermarkets, banks, and other smaller shops which cater to both local residents and tourists. This linear pattern of development of the land uses means that the views and vistas of the mountain ranges remain without major obstructions.

Waimea Elementary and Middle School has developed over the years with a series of single story classroom buildings, portable classrooms, and various other buildings including the library, cafeteria, gymnasium, and administration buildings. A classroom building near the library is the only existing two-story building on the campus. The size and placement of the various building provide open views of the surrounding areas. Most of the permanent buildings on the campus have beige/tan colored walls and green metal roofs.

2.12.2 Impacts and Mitigation Measures

The new classroom building will be a two-story structure with roof ridge about 42 feet above the surrounding grade. The windows will be provided to allow for natural lighting and ventilation. Sun shades on the 1st story will be used control sunlight and heating

from the sun. The exterior walls will have beige finish, similar to the existing permanent buildings on campus and the sun shades a dark bronze finish. The roof will be metal with a green color finish, also similar to most of the other buildings on campus.

The new classroom building is sited in the south central portion of the campus, about 280 feet from the eastern boundary of the School. This location means the predominant public view of the new classroom building will be from Lindsey Road and the adjacent Parker Ranch Center. Public views of the building will be mitigated by the 280-foot setback from campus boundary. The selected exterior wall color and roof material of the new classroom building will blend in with the other campus buildings. As such, the new classroom building will not present an adverse impact to the public views from other areas of Waimea.

3. RELATIONSHIP to PLANS, POLICIES and CONTROLS

3.1 Hawaii State Plan

The Hawaii State Planning Act, adopted in 1978 and subsequently revised in 1988, 1993, and 2009 establishes the overall theme, goals, objectives, and priority guidelines to guide the future long-range development of the State. The Hawaii State Planning Act is shown in Chapter 226, Hawaii Revised Statutes. The purpose of Chapter 226 is to set forth the Hawaii State Plan that will shall serve as a guide for the future long-range development of the State; identify the goals, objectives, policies, and priorities for the State; provide a basis for determining priorities and allocating limited resources.

The Waimea Middle School new classroom building 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 new classroom building will involve construction of new facilities at a new site. The new classroom building 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 226-21 Objectives and policies for socio-cultural advancement-education.

> (a) Planning for the State's socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.
>
> (b) To achieve the education objective, it shall be the policy of this State to:
> *(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.*

(4) Promote educational programs which enhance understanding of Hawaii's cultural heritage.

(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.

The new classroom building will provide a building to meet the current educational needs of the Middle School students, especially with regards to the computer and science laboratories. The new classroom building will have classrooms specifically designed for teaching computer related skills and science classes. The new classroom building will provide facilities to enhance the educational skills the students will need as they continue their educational process. The new classroom building will also include general classrooms which will be used for teaching basic skills needed by students, including writing and speaking.

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, classifies all land in the State into four land use districts: Urban, Agriculture, Conservation, and Rural. The Waimea Middle School new classroom building project site is located in the Urban District classification.

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 effective February 9, 2005.

Among its various sections, the County of Hawaii General Plan contains a series of policies for the long-range comprehensive development of the county and statements of development standards and principles with respect to the most desirable use of land within the county. Public facilities are set forth in Section of the General Plan. Public facilities are those service systems that are provided, staffed, and maintained by government to directly serve the residents of the County. Public facilities include the

systems of schools, libraries fire stations, police stations, detention and correctional facilities, refuse disposal areas, harbors, and airfields.

The goals, policies and standards from Section 10 of the General Plan applicable to the new classroom building are set forth below.

Public Facilities

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

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

The new classroom building will construct a facility to replace the existing science and computer classrooms with modern specialized science laboratories and spaces designed as computer laboratories. Proper classrooms for these subjects are critical to meet the educational requirements of Middle School students. The new classroom building will also provide necessary instructional support spaces to service the Middle School. Thus, the new classroom building will be consistent with the Public Facilities goals and policies of the General Plan.

In addition to goals and policies, the General Plan identifies courses of action to promote the policies, development objectives, standards and principles set forth in the Plan. The course of action for the South Kohala District applicable to the new classroom building is set forth below.

Courses of Action (South Kohala)
(b) Encourage continual improvements to existing educational facilities.

The new classroom building is to replace the existing science and computer classrooms with modern specialized science laboratories and with spaces designed as computer laboratories. Proper classrooms for these subjects are critical to meet the educational requirements of middle school students. The new classroom building will also provide

necessary instructional support spaces to service the Middle School. The new classroom building will be consistent with the General Plan's South Kohala Public Facilities, provisions of the General Plan.

3.2.3 South Kohala Community Plan.

The County of Hawaii General Plan Section 15.1 (February 2005, as amended) calls for the preparation of community development plans (CDP) "to translate the broad General Plan statements to specific actions as they apply to specific geographical areas." The General Plan requires CDPs be adopted as an "ordinance", giving the plans force of law. The South Kohala Community Development Plan, which covers the Waimea area, is a long term plan with a planning horizon to year 2020, consistent with the General Plan.

The South Kohala Community Development Plan (CDP) is intended to be the forum for translating South Kohala's community input into Policies and Action Plans that shape the future land use of the district and translate broad General Plan statements into specific actions.

The purposes of the South Kohala Community Development Plan (CDP) are to:

- Identify the South Kohala community's Priority Issues;
- Develop Policies and Action Programs to address those Priority Issues

The South Kohala CDP is primarily directed to policies or courses of action for County agencies to undertake. However, based on its central location in Waimea, the new classroom building will be affected by plans and policies related to various transportation issues set forth in the South Kohala CDP.

> *Policy No. 5 Timely Implementation of Needed Transportation and Circulation Improvements*

Note: with the exception of, Policy 5.1 "Walkways and Bikeways along the main roads," the projects described in the South Kohala CDP are all at some level of planning by various community, county and state entities. A brief description of these projects was included in the South Kohala CDP as they are very important for the future of Waimea. However, the South Kohala CDP did not devote a significant amount of time and resources to evaluating these transportation plans or develop any detailed alternatives

to proposed new roadways or traffic improvements. The CDP did, however, reflect community priorities and concerns regarding these projects - concerns that are not always reflected in the official project plans and reports.

Strategy 5.1 Plan, design, and construct walkways and bikeways within the existing rights of way of the main Waimea Roads: Kawaihae Road and Mamalahoa Highway

Except for sidewalks for a few blocks within the center of Waimea Town, there are no walkways or bikeways along the major roads that could be used by pedestrians and bicyclists, including children walking to and from school. Constructing safe bikeways and walkways along Mamalahoa Highway and Kawaihae Road would provide people with alternatives to travel by car, and would thus potentially alleviate to some degree the peak hour traffic jams that now characterize Waimea.

Strategy 5.2 Support the implementation of the Waimea Trails and Greenways Project

Plans for the Waimea Trails and Greenways project have been developed over a period of some 13 years. The first phase of the project, about 0.5 miles in length, from Lindsey Road to the beginning of the Sandalwood subdivision, has recently been completed. This multi-purpose path is planned to eventually extend to the vicinity of "Church Row." This stream-side trail will be an important complement to the planned walkway/bikeway system that the CDP proposes along the main roadways.

Strategy 5.3 Plan, design, and construct a system of equestrian trails for Waimea

The CDP stated there has been considerable discussion in recent years about the need and desirability of equestrian trails in the Waimea area. A generation or two ago, horses and riders were a natural part of the Waimea scene, and as recently as the 1980's, it was not uncommon to see people riding their horses along the main roads. However, current traffic volumes effectively preclude horses and riders in town.

Strategy 5.4 Plan, design, and construct a system of multi-purpose paths and trails for Waimea

There are many other opportunities for the establishment of paths and trails in the Waimea area.

Strategy 5.5 Implement short-term traffic mitigation improvements in and around Waimea Town Center

The *"Draft Waimea Traffic Circulation Study"* by PB Americas provides recommendations on relatively near-term improvements that could be implemented to lessen the severity of peak hour traffic congestion in Waimea Town Center. These improvements include widening a section of Mamalahoa Highway from 2 lanes to 4 lanes, and improvements to the main intersection of Mamalahoa Highway/Lindsey Road/Kawaihae Road.

The South Kohala CDP stated some community members had gone on record criticizing the study for lack of understanding of Waimea's unique history and "country town" character. Specifically, some people have strongly opposed any widening of Mamalahoa Highway near the town center from 2 lanes to 4 lanes. The suggested alternate action is "changes in travel habits" rather than road widening. For example, starting time for (some) schools and/or some places of employment both in Waimea and in the resorts might significantly alleviate traffic congestion during peak hours - although changing starting times for schools to a later time may result in schools ending at the same time as the afternoon peak traffic conditions.

Strategy 5.6 Design and construct the Parker Ranch Connector Road

Parker Ranch and the County of Hawai'i recently reached an agreement regarding design and construction of the "Parker Ranch Connector Road." As previously discussed, this much needed road was recently completed and extends from Kamamalu Street in east Waimea to Mamalahoa Highway just north of the Parker Ranch racetrack and rodeo grounds.

3.2.4 County of Hawaii Zoning

The County of Hawaii zoning designation for the parcel is also split with about 9.4 acres adjacent to Mamalahoa Highway designated as Residential (RS 7.5) and the remaining 16.4 acres, including the project site, as Agriculture (A-40a) zone General Agricultural District. Hawaii County Code, Zoning, Section 25-4-11, sets forth that public uses are

permitted uses in any district provided that the Planning Director has issued a plan approval for such uses. A plan approval will be submitted to the Planning Director for the new classroom building.

3.2.5 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 new classroom building project site is not located within the County's SMA.

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4. ALTERNATIVES TO THE PROPOSED ACTION

4.1 No Action Alternative

The No Action alternative would retain the existing computer and science classrooms with their lack of up to date instructional aids and equipment. The lack of up to date facilities limits the types of instructional programs which would be available to students. Although there would be no disturbance to the project site, continued use of existing facilities would not be in the best interest of the students and staff at the School. Both students and staff need adequate and modern communication classrooms and facilities to provide the high level of instruction needed in the future. Adequate facilities are needed to give students the environment necessary for successful learning opportunities. Based on these considerations, the No Action alternative is not considered a feasible alternative.

4.2 Other Sites

The existing facilities occupy about 60 percent of entire School parcel, starting near Mamalahoa Highway. Thus, there are open spaces on the southern portion of the School parcel. These areas are currently unoccupied and appear to have similar topographic characteristics as the project site.

There are several drawbacks to use of sites farther to the south. First, the sites would be farther from existing facilities including other existing classrooms, the library, the cafeteria, open playfields, and the administration building and related functions. This would mean students and staff would have to walk farther between class periods, which could result in the need for longer breaks between classes. This would limit the classroom time for students and staff.

An alternate site farther from the developed areas would also increase the development costs of the facility. Electrical power and water service lines would have to be extended which add to the costs compared to the project site. Also, walkways would have to be extended for student and staff access. Lastly, an alternate site would not be adjacent to the community garden and thus the functional relationship to the garden would not be possible. Lastly, an isolated site would limit possibility of future expansion of the campus. Based on these considerations, use of another site is not considered a feasible alternative.

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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 anticipated for the Waimea Middle School New Eight Classroom Building 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 new classroom building 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 has been used for open area. Thus, the new classroom building project site will not result in the loss or destruction of natural resources.

Based on the results of the archaeological field survey, construction of the new classroom building and related improvements should have no adverse impacts to historic sites.

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

The new classroom building will use lands within school parcel which have been used as an open area. The new classroom building and parking lot will occupy a total area of about 1.62 acres within a portion the existing campus which has been previously cleared. Thus, the new classroom building 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 new classroom building project will not involve actions or activities which would adversely affect natural resources of the project site. The new classroom building project will be consistent with the guidelines of Chapter 344, HRS, as it will provide a facility to support the educational needs of students enrolled at Waimea Middle School. As such, the new classroom building 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 new classroom building will be a facility to be used to meet the educational needs of students in the Waimea area. The new classroom building is an integral part of the infrastructure needed to maintain the health and welfare of the community, along with the educational purposes of the community. The new classroom building will have not have an adverse effect to the economic or social welfare of the community.

5) *Substantially affect public health*;

Efficient educational facilities are needed to enhance the educational experience of students while in school. An educated population is needed to maintain the public health of residents. Thus, the new classroom building 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 new classroom building will be a public facility which will be used by the students of the Waimea area. The new classroom building is not expected to increase the enrollment at Waimea Middle School. Thus, construction of the new classroom building will not create secondary impacts, such as population changes or effects on public facilities.

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

The new classroom building 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. The new classroom building 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, construction of the new classroom building and related improvement should have no adverse impacts to historic sites.

Based on the above findings, the new classroom building and related improvements project will not result in a substantial degradation of environmental quality.

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

The new classroom building does not involve a commitment to further actions to other State of Hawaii related projects on Hawaii. As a result, the new classroom building 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 new classroom building project site does not contain Federal or State listed or candidate threatened or endangered species of flora or fauna. Thus, the new classroom building project site will not affect a threatened or endangered 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 new classroom building project site. Once construction has been completed, the new classroom building will contribute almost no additional noise or air emissions to the local area.

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;

According to the Flood Insurance Rate Map (FIRM), the new classroom building is located in area not subject to flood hazards, a hazardous floodplain or a tsunami zone. The new classroom building project site is also not within the County of Hawaii Special Management Area. In addition, the new classroom building project site is not within the coastal shoreline area. Thus, the new classroom building 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*;

Public views of the new classroom building will be mitigated by the approximately 280-foot setback from campus boundary. The selected exterior wall color and roof material of the new classroom building will blend in with the other campus buildings. As such, the new classroom building will not present an adverse impact to the public views from other areas of Waimea.

13) *Require substantial energy consumption.*

The new classroom building is a new facility which will be planned and designed to minimize use of electrical power. Thus, the new classroom building project will not create a substantial increase in energy consumption.

Based on these findings and the assessment of potential impacts from the new classroom building, a Finding of No Significant Impact (FONSI) is anticipated.

6. LIST of PERMITS and APPROVALS

State of Hawaii Department of Health

National Pollutant Discharge Elimination System (NPDES) Permit

Individual Wastewater System (IWS) Permit

Underground Injection Control (UIC) Permit

County of Hawaii

Plan Review Approval

Grading Permit

Building Permit

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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. All written comments and responses are reproduced in Appendix A.

Federal Agencies

Department of the Army, US Army Engineer District, Honolulu
US Department of the Interior of the Fish and Wildlife

State Agencies

Department of Business, Economic Development & Tourism
DBED&T – Strategic Industries Energy Resources and Technology Division
Department of Defense
Department of Hawaiian Home Lands
Department of Health
Department of Health - Environmental Planning Office
Department of Land and Natural Resources
Department of Land and Natural Resources Historic Preservation Division
Department of Land and Natural Resources Historic Preservation Division, Hilo
Department of Land and Natural Resources Historic Preservation Division, Hawaii Island Burial Council
Department of Transportation
Office of Hawaiian Affairs

County of Hawaii

Civil Defense
Department of Environmental Management
Fire Department
Mass Transit
Department of Parks and Recreation
Planning Department
Police Department
Department of Research and Development

Department of Public Works
Department of Water Supply

Officials

Senator Malama Solomon
Representative Mark Nakashima
Councilmember Peter Hoffman

Public Utilities

Hawaii Electric Light Company
Hawaiian Telcom

Organizations

Kona Kohala Chamber of Commerce
South Kohala Traffic Safety Committee
Parker Ranch
Waimea Community Association

7.2 Agencies and Organizations Consulted on the Draft EA

The following is a list of agencies and organizations that are to be consulted during the review of the Draft Environmental Assessment.

Federal

Department of the Army, US Army Engineer District, Honolulu
US Department of the Interior of the Fish and Wildlife Service

State Agencies

Department of Business, Economic Development and Tourism, State Energy Office
Department of Hawaiian Home Lands
Department of Health
Department of Health - Environmental Management Division
Department of Land and Natural Resources
Department of Land and Natural Resources Historic Preservation Division
Department of Land and Natural Resources Historic Preservation Division, Hilo
Department of Land and Natural Resources - Water Resource Management
Department of Transportation

Office of Hawaiian Affairs
Office of Environmental Quality Control
University of Hawaii Water Resources Research Center
Thelma Parker Memorial Public Library

County of Hawaii Agencies

County of Hawaii Civil Defense
County of Hawaii Department of Environmental Management
County of Fire Department
Mass Transit
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 Lorraine Inouye
Representative Cindy Evans
Councilmember Valerie Poindexter
Councilmember Margaret Wille

Public Utilities

Hawaii Electric Light Company
Hawaiian Telcom

Organizations

Kona Kohala Chamber of Commerce
South Kohala Traffic Safety Committee
Parker Ranch
Waimea Community Association

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8. REFERENCES

County of Hawaii Planning Department. *County of Hawaii General Plan, Ordinance 05 25, Bill No. 163.* Effective Date February 9, 2005.

County of Hawaii. *South Kohala Community Development Plan, Ordinance 08-159. Bill No. 369.* Effective Date December 1, 2008.

County of Hawaii Planning Department. *Waimea Traffic Circulation Study Big Island Hawaii. Final Report.* December 2007.

Federal Emergency Management Agency. Letter of Map Revision. Case No. 05-09-0238P, Effective Date December 01, 2005.

Honolulu Magazine. Saving Building N. David Thompson. November 2004.

State of Hawaii Department of Agriculture. Agricultural Lands of Importance to the State of Hawaii, Island of Hawaii. Sheet H-25. January 1977.

State of Hawaii Department of Education. Construction Plans Waimea Elementary & Middle School Hawaii Department of Education Cesspool Conversion Project, DAGS Job No. P-00046-06. March 20, 2007.

State of Hawaii Department of Health. State of Hawaii Annual Survey 2012 Air Quality Data. September 2013.

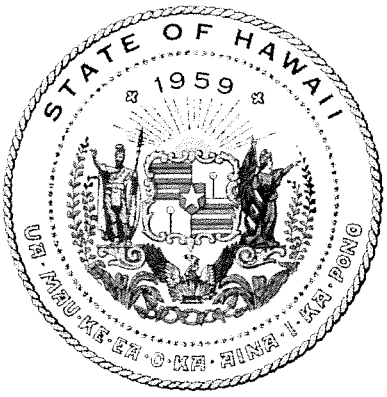
The Hawaii State Plan Chapter 226, Hawaii Revised Statutes. Office of the Governor Office of State Planning. 1988.

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

Title 11 Hawaii Administrative Rules State of Hawaii Department of Health, Chapter 62, Wastewater Systems. January 14, 2004.

Title 11 Hawaii Administrative Rules State of Hawaii Department of Health Chapter 23 Underground Injection Control. November 12, 1992; December 21, 2000, Amendment.

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



APPENDIX A

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

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

In reply, please refer to:
EMD/CWB

12026PDCL.11

December 28, 2011

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

RECEIVED
DEC 30 2011
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for Waimea Middle School New Eight Classroom Building Parker Ranch, South Kohala, Island of Hawaii

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for an NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

   a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on

different schedules under a larger common plan of development or sale. This includes areas used for a construction base yard and the storage of any construction related equipment, material, and waste products. An NPDES permit is required before the start of the construction activities.

   b. Hydrotesting water.

   You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html.

3. For other types of wastewater not listed in Item No. 2 above or wastewater discharging into Class 1 or Class AA waters, an NPDES individual permit will need to be obtained. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at http://hawaii.gov/health/environmental/water/cleanwater/forms/environmental/water/cleanwater/forms/indiv-index.html.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

If you have any questions, please visit our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

Darryl Lum TA FOR
ALEC WONG, P.E., CHIEF
Clean Water Branch

DCL:ml

c: DOH-EPO #11-259 [via email only]
Mr. John Sakaguchi, Wilson Okamoto Corporation (via fax 946-2253)

WILSON OKAMOTO CORPORATION

)07 South Beretania Street
rtesian Plaza, Suite 400
onolulu, Hawaii, 96826 USA
hone: 808.946.2277
ax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Dr. Linda M. Rosen, M.D., M.P.H., Director
State of Hawaii
Department of Health
1250 Punchbowl Street
Honolulu, Hawaii 96813

Attention: Mr. Alex Wong, PE, Chief, Clean Water Branch

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comment

Dear Dr. Rosen:

Thank you for your December 28, 2011 comment letter (12026PDCL.11) regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building, South Kohala, Hawaii project. The Draft EA will state the project will need to comply with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55.

The Draft EA will include applicable discussions of air quality, noise, water quality, hazardous waste, and wastewater.

The Draft EA will include should the project have potential impacts to State waters, it must meet the criteria in HAR, Section 11-54-1.1, Section 11-54-3 and the water quality criteria in HAR, Sections 11-54-4 through 11-54-8.

The Draft EA will note the need to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters, if the project construction activities, including clearing, grading, and excavation, will result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. This includes areas used for a construction base yard and the storage of any construction related equipment, material, and waste products.

Lastly, the Draft EA will also note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

7794-01
12/28/11

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

cc: API
In reply, please refer to:
File:

LUD – 3 6 7 002 015-ID848
DEA-PreAssmnt Waimea Middle School

December 21, 2011

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

Dear Mr. Sakaguchi:

Subject: Draft Environmental Assessment, Pre-Assessment Consultation; Waimea Middle School New Eight (8) Classroom Building, Parker Ranch, South Kohala, Island of Hawaii
DOE Job No. Q12003-07 at 67-1225 Mamalahoa Highway, Waimea Village, South Kohala, Hawaii 96743 TMK (3) 6-7-002: 015

Thank you for allowing us to comment on the Draft Environmental Assessment, Pre-Assessment Consultation; Waimea Middle School New Eight (8) Classroom Building, Parker Ranch, South Kohala, Island of Hawaii. We have the following comments to offer:

1. The subject project is located in the critical wastewater disposal area as determined by the Hawaii County Wastewater Advisory Committee;

2. All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules; and

3. We have no objections to the proposed development.

Should you have any questions, please contact the Planning & Design Section of the Wastewater Branch at (808) 586-4294 or fax to (808) 586-4300.

Sincerely,

MARSHALL LUM, P.E., ACTING CHIEF
Wastewater Branch

LM:cle

c: DOH's Environmental Planning Office (EPO 11-259)
DOH-WWB's Kona Staff – Mr. Dane Hiromasa
DOH – Hawaii District Health Office

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Dr. Linda M. Rosen, M.D., M.P.H., Director
State of Hawaii3
Department of Health
1250 Punchbowl Street
Honolulu, Hawaii 96813

Attention: Mr. Marshall Lum, PE, Acting Chief, Wastewater Branch

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comment

Dear Dr. Rosen:

Thank you for the December 21, 2011 comment letter (LUD-367002015-ID848) regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building, South Kohala, Hawaii project. The Draft EA will state the project is located in the critical wastewater disposal area as determined by the Hawaii County Wastewater Advisory Committee. Further, the Waimea area is not serviced by a municipal wastewater system. As such, the new classroom building will require use on an individual wastewater treatment and disposal system.

The Draft EA will also state wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." The detailed wastewater plans will need to conform to applicable rules, and will be subject to review by the Wastewater Branch.

Lastly, the Draft EA will state the Wastewater Branch has no objections to the proposed development.

We appreciate your participation in the EA review process. If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

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

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 the Waimea Middle School New Eight Classroom Building located at Parker Ranch, South Kohala, Island of Hawaii; TMK: (3) 6-7-002:015

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) Engineering Division; (b) Division of Forestry & Wildlife; (c) Division of State Parks; and (d) 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

Enclosures

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PM1236 ENGINEERING

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

RECEIVED
LAND DIVISION

2011 DEC 30 A 10:39

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

December 14, 2011

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
X Div. of State Parks
X 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 the Waimea Middle School New Eight Classroom Building
LOCATION: Parker Ranch, South Kohala, Island of Hawaii; TMK: (3) 6-7-002:015
APPLICANT: Wilson Okamoto Corporation on behalf of Department of Education

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 29, 2011.

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: _____
Date: 12/27/11

cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji
REF: Pre-Assessment Consultation for DEA for Waimea Middle School, New Eight Classroom Building, Parker Ranch, South Kohala Hawaii.010

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 National Flood Insurance Program does not have any regulations for developments within 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 site 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) 523-4247 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.

(X) **The applicant should provide to the Engineering Division upon its availability the water demands and calculations for the selected site, so it can be included in the State Water Projects Plan Update.**

( ) Additional Comments: _____

( ) Other: _____

Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: _____
for CARTY S. CHANG, CHIEF ENGINEER

Date: 12/29/11

WILSON OKAMOTO CORPORATION

1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Mr.Russell Y. Tsuji, Land Administrator
Land Division
State of Hawaii
Department of Land and Natrual Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Engineering Division

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Mr. Tsuji:

Thank you for your January 12, 2012 comment letter regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. The Draft EA will include that the project site is located in Flood Zone X and that the National Flood Insurance Program does not have any regulations for development in Zone X.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

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 14, 2011

MEMORANDUM

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

RECEIVED
LAND DIVISION
2011 DEC 23 P 2:44
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for the Waimea Middle School New Eight Classroom Building
LOCATION: Parker Ranch, South Kohala, Island of Hawaii; TMK: (3) 6-7-002:015
APPLICANT: Wilson Okamoto Corporation on behalf of Department of Education

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 29, 2011.

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.
(X) We have no comments.
( ) Comments are attached.

Signed: Ray Ky
Date: 12-23-11

cc: Central Files

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Mr.Russell Y. Tsuji, Land Administrator
Land Division
State of Hawaii
Department of Land and Natrual Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Division of Forestry &Wildlife

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Mr. Tsuji:

Thank you for your January 12, 2012 comment letter regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. The Draft EA will include the Division of Forestry & Wildlife had no comments.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio

05058

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

RECEIVED
STATE PARKS DIV

11 DEC 20 A11 :01

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

DEPT OF LAND & NATURAL RESOURCES

December 14, 2011

MEMORANDUM

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

2011 DEC 22 P 2:48
DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII
RECEIVED
LAND DIVISION

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for the Waimea Middle School New Eight Classroom Building
LOCATION: Parker Ranch, South Kohala, Island of Hawaii; TMK: (3) 6-7-002:015
APPLICANT: Wilson Okamoto Corporation on behalf of Department of Education

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 29, 2011.

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:
Date: 12/20/11

cc: Central Files

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Mr. Russell Y. Tsuji, Land Administrator
Land Division
State of Hawaii
Department of Land and Natrual Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Division of State Parks

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Mr. Tsuji:

Thank you for your January 12, 2012 comment letter regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. The Draft EA will include the Division of State Parks had no comments.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

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 21 P 2:36

RECEIVED
LAND DIVISION
HILO, HAWAII

December 14, 2011

MEMORANDUM

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

RECEIVED
LAND DIVISION
2011 DEC 30 A 10:05
DEPT OF LAND & NATURAL RESOURCES
STATE OF HAWAII

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment, Pre-Assessment Consultation for the Waimea Middle School New Eight Classroom Building
LOCATION: Parker Ranch, South Kohala, Island of Hawaii; TMK: (3) 6-7-002:015
APPLICANT: Wilson Okamoto Corporation on behalf of Department of Education

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 29, 2011.

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:
Date: 12.28.11

cc: Central Files

WILSON OKAMOTO CORPORATION

1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Mr.Russell Y. Tsuji, Land Administrator
Land Division
State of Hawaii
Department of Land and Natrual Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Land Division – Hawaii District

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Mr. Tsuji:

Thank you for your January 12, 2012 comment letter regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. The Draft EA will include the Hawaii District Land Division had no comments.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

(7794-01)
1/8/12

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

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

GUY 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

cc: API
A Haun

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

December 29, 2011

RECEIVED
JAN 03 2012
WILSON OKAMOTO CORPORATION

LOG NO: 2011.3181
DOC NO: 1112MV15
Archaeology

John Sakaguchi
Wilson Okamoto
1907 South Beretanita Stret Suite 400
Honolulu, Hawai'i 96826

Dear Mr. Sakaguchi:

SUBJECT: **Chapter 6E-8 Historic Preservation Review - Environmental Assessment Preparation Notice**
Construction of a New Building at the 5.2-Acre Waimea Middle School Campus
Waikoloa Ahupua'a, South Kohala District, Island of Hawai'i
TMK (3) 6-7-002:015 (portion)

Thank you for the opportunity to provide comments on the environmental assessment of the aforementioned project that was received by our office on December 1, 2011. Our office has reviewed an archaeological assessment (AA) for this project area titled *Archaeological Assessment Waimea Middle School Eight Classroom Building (DOE Job No. Q12003-07), Portion of TMK (3) 6-7-02:015 Land of Waikoloa South Kohala District Island of Hawaii,* by A. Haun and D. Henry (February, 2011). The field work for this study consisted of a 100% pedestrian survey of the surface environment that utilized 10 meter transects. No subsurface testing was conducted during this project. No historic properties were identified during this survey, therefore the report was presented as an assessment pursuant to HAR 13-275-5 (5) (A).

Our office has requested revisions to the AA report for this project because we do not believe that it adequately identified the all of the archaeological sites within the project area, or adequately investigated the subsurface environment of the project area (*Log 2011.0462, Doc. 1108MV01*). The AA report referenced a seasonal drainage in the project area. Based on information that was submitted to SHPD after the Haun Assessment was completed (Rieth and Filimoehala 2011), SHPD has learned that this drainage was likely an historic *auwai* or irrigation channel. In addition, subsequent to the submittal of the Haun AIS there was an inadvertent discovery of human skeletal remains in the vicinity of this project area. This burial was interred in the same geological substrate that underlies this project area (Waimea very fine sandy loam). Therefore, we believe that subsurface historic properties may exist within this proposed project area and we request subsurface testing in the area of potential impact. The testing may be conducted by hand or with a backhoe, as appropriate to establish a baseline stratigraphy for the project area and to determine if subsurface archaeological sites are present or anticipated. We look forward to reviewing the results of the significance assessment for the *auwai*, and the results of the subsurface excavations. In addition we recommend consulting with individuals knowledgeable about the project area as part of the AIS, pursuant to HAR 13-276-5 (g).

Please contact Mike Vitousek at (808) 652-1510 or Michael.Vitousek@Hawaii.gov if you have any questions or concerns regarding this letter.

Aloha,

Theresa K. Donham
Acting Archaeology Branch Chief
Historic Preservation Division

WILSON OKAMOTO CORPORATION

1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Dr. Alan Downer, PhD, Administrator
State of Hawaii
Department of Land and Natural Resources
Historic Preservation Division
601 Kamokila Boulevard
Kapolei, Hawaii 96707

Attention: Ms. Theresa Donham, Archaeology Branch Chief, Hilo, Hawaii

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comment

Dear Dr. Downer:

Thank you for the December 29, 2011 comment letter from your office regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. Based on the comments, subsurface testing was conducted at the site, including excavation of five backhoe trenches within the area of the classroom building. Further, as requested, additional archaeological documentary research and consultation were undertaken. The results of this additional archaeological subsurface testing and research are documented in an archaeological inventory survey report which will be submitted directly to your office and included as an appendix in the Draft EA.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

NEIL ABERCROMBIE
GOVERNOR

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

GLENN M. OKIMOTO
DIRECTOR

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

IN REPLY REFER TO:
STP 8.0692

7947-01
1/17/12
cc: APL

January 3, 2012

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

RECEIVED
JAN 13 2012
WILSON OKAMOTO CORPORATION

Dear Mr. Sakaguchi:

Subject: Waimea Middle School New Eight Classroom Building
Pre-Assessment for Draft Environmental Assessment (DEA)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project.

DOT understands the Department of Education (DOE) proposes to develop a new 2-story classroom building that will contain 24,000 square feet.

DOT offers the following comments:

1. The DEA should discuss and evaluate the project's contribution to the cumulative traffic impacts on State highway facilities in the area.

2. The developer should be informed that a permit is required from the DOT Highways Hawaii District Office, to transport oversized and overweight equipment/loads within the State highway facilities.

3. Any changes or updating of the conditions on the right-of-way of Mamalahoa Highway bordering the school, including any ground (drainage, landscaping, etc.) impacts, should be discussed in the DEA and coordinated with the DOT Highways Division.

DOT appreciates the opportunity to provide comments. If there are any other 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

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Mr. Ford Fuchigami, Interim Director of Transporation
State of Hawaii
Department of Transporation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Mr. Fuchigami:

Thank you for the January 3, 2012 comment letter (STP8.0692) the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. Our responses follow:

1. The Draft EA will include note the Classroom project is needed to replace facilities at the school and no additional enrollment of students is expected from the project. As such, discussion of cumulative traffic will be included in Draft EA, as necessary.

2. The Draft EA will note a permit from the DOT Highways Hawaii District Office will be needed for transporting oversize and overweight equipment/loads within State highway facilities.

3. The Draft EA will note if there are any changes to conditions on the right-of-way of Mamalahoa Highway bordering the school.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

NEIL ABERCROMBIE
GOVERNOR
STATE OF HAWAI'I

STATE OF HAWAI'I
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAI'I 96805

ALBERT "ALAPAKI" NAHALE-A
CHAIRMAN
HAWAIIAN HOMES COMMISSION
MICHELLE K. KAUHANE
DEPUTY TO THE CHAIRMAN
M. WAIALEALE SARSONA
EXECUTIVE ASSISTANT

(7794-01) JJ
1/5/12
FILE
cc: API

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

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Ms. Jobie Masagatani, Chair
State of Hawaii
Department of Hawaiian Home Lands
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Ms. Masagatani:

Thank you for the December 20, 2011 comment letter from your office regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. The Draft EA will note that the Deaprtment of Hawaiian Home Lands has no comments on the project.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

PHONE (808) 594-1888
FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

1794-01
1/9/12
cc: API

HRD11/6043

December 20, 2011

RECEIVED
JAN 06 2012
WILSON OKAMOTO CORPORATION

John L. Sakaguchi, Senior Planner
Wilson Okamoto Corporation
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawai'i 96826

Re: Pre-Draft Environmental Assessment Consultation
Waimea Middle School Classroom Building
Waimea, Kohala, Island of Hawai'i

Aloha e John L. Sakaguchi,

The Office of Hawaiian Affairs (OHA) is in receipt of your November 29, 2011 request for comments ahead of a draft environmental assessment (DEA) which will be prepared to support the construction of a new 12,000 square foot, two-story classroom building (project) at the Waimea Middle School (school) which is proposed by the State of Hawai'i-Department of Education (DOE) in Waimea on the Island of Hawai'i. The project will provide modern classrooms and laboratories to support the needs of the faculty, staff and students of the school. The project is immediately adjacent to the Mala'ai Garden (garden) on the school grounds. OHA suggests that the planned location of the project in relationship to the garden be assessed to consider whether sunlight and rain to the garden will be blocked by the classroom building when it is completed. Drainage structures should also be designed to direct runoff away from the garden, if possible.

Thank you for the opportunity to provide comments. We look forward to seeing the project completed and the teaching and learning environment at the school improved. OHA requests that an electronic copy of the DEA be sent 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, West Hawai'i Community Outreach Coordinator

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Dr. Kamana'opono Crabbe, Chief Executive Officer
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Blvd. Suite 500
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Dr. Crabbe:

Thank you for the December 20, 2011 comment letter (HRD11/6043) from your office regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. The Draft EA will provide information regarding the site plan showing the location of the building in relation to Malaai Garden and any shadow the building might create.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

7794-01
12/16/11 JS
cc: API

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

December 12, 2011

RECEIVED
DEC 15 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;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawai'i
DOE JOB No. Q12003-07; TMK: 6-7-002:015
Request for Comments

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, P.E.
ACTING DIRECTOR

WILSON OKAMOTO CORPORATION
907 South Beretania Street
rtesian Plaza, Suite 400
onolulu, Hawaii, 96826 USA
hone: 808.946.2277
ax: 808.946.2253
/ww.wilsonokamoto.com

7794-01
June 16, 2014

Ms. Bobby Jean Leithead Todd, Director
County of Hawaii
Department of Environmental Management
25 Aupuni Street
Hilo, Hawaii 96720

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comment

Dear Ms. Leithead Todd:

Thank you for the December 12, 2011 comment letter from your office regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building, South Kohala, Hawaii project. The Draft EA will note that the County of Hawaii Deaprtment of Environmental Management has no comments on the project.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

William P. Kenoi
Mayor

7794-01
12/16/11

Darren J. Rosario
Fire Chief
Renwick J. Victorino
Deputy Fire Chief

JS
cc: API

County of Hawai'i
HAWAI'I FIRE DEPARTMENT

25 Aupuni Street • Room 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

December 8, 2011

RECEIVED
DEC 14 2011

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

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT, PRE-CONSULTATION
PROJECT: WAIMEA MIDDLE SCHOOL NEW EIGHT CLASSROOM
BUILDING, PARKER RANCH, SOUTH KOHALA
TMK: 6-7-002:015

In regards to the above-mentioned draft environmental assessment, the following shall be in accordance:

Fire apparatus access roads shall be in accordance with UFC Section 10.207:

"**Fire Apparatus Access Roads**

"**Sec. 10.207.** (a) **General.** Fire apparatus access roads shall be provided and maintained in accordance with the provisions of this section.

"(b) **Where Required.** Fire apparatus access roads shall be required for every building hereafter constructed when any portion of an exterior wall of the first story is located more than 150 feet from fire department vehicle access as measured by an unobstructed route around the exterior of the building.

"**EXCEPTIONS:** 1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of this section may be modified.

"2. When access roadways cannot be installed due to topography, waterways, nonnegotiable grades or other similar conditions, the chief may require additional fire protection as specified in Section 10.301 (b).

"3. When there are not more than two Group R, Division 3 or Group M Occupancies, the requirements of this section may be modified, provided, in the opinion of the chief, fire-fighting or rescue operations would not be impaired.

"More than one fire apparatus road may be required when it is determined by the chief that access by a single road may be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

"For high-piled combustible storage, see Section 81.109.

"(c) **Width.** The unobstructed width of a fire apparatus access road shall meet the requirements of the appropriate county jurisdiction.

"(d) **Vertical Clearance.** Fire apparatus access roads shall have an unobstructed vertical clearance of not less than 13 feet 6 inches.

"**EXCEPTION:** Upon approval vertical clearance may be reduced, provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance.

"(e) **Permissible Modifications.** Vertical clearances or widths required by this section may be increased when, in the opinion of the chief, vertical clearances or widths are not adequate to provide fire apparatus access.

"(f) **Surface.** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities." (20 tons)

"(g) **Turning Radius.** The turning radius of a fire apparatus access road shall be as approved by the chief." (45 feet)

"(h) **Turnarounds.** All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with approved provisions for the turning around of fire apparatus.

"(i) **Bridges.** When a bridge is required to be used as access under this section, it shall be constructed and maintained in accordance with the applicable sections of the Building Code and using designed live loading sufficient to carry the imposed loads of fire apparatus.

"(j) **Grade.** The gradient for a fire apparatus access road shall not exceed the maximum approved by the chief." (15%)

"(k) **Obstruction.** The required width of any fire apparatus access road shall not be obstructed in any manner, including parking of vehicles. Minimum required widths and clearances established under this section shall be maintained at all times.

"(l) **Signs.** When required by the fire chief, approved signs or other approved notices shall be provided and maintained for fire apparatus access roads to identify such roads and prohibit the obstruction thereof or both."

Water supply shall be in accordance with UFC Section 10.301(c):

"(c) **Water Supply.** An approved water supply capable of supplying required fire flow for fire protection shall be provided to all premises upon which buildings or portions of buildings are hereafter constructed, in accordance with the respective county water requirements. There shall be provided, when required by the chief, on-site fire hydrants and mains capable of supplying the required fire flow.

"Water supply may consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

"The location, number and type of fire hydrants connected to a water supply capable of delivering the required fire flow shall be protected as set forth by the respective county water requirements. All hydrants shall be accessible to the fire department apparatus by roadways meeting the requirements of Section 10.207.

for DARREN J. ROSARIO
Fire Chief

CB:lpc

WILSON OKAMOTO CORPORATION
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Chief Darren Rosario, Fire Chief
County of Hawaii
Fire Department
25 Aupuni Street, Room 103
Hilo, Hawaii 96720

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comment

Dear Chief Rosario:

Thank you for your December 8, 2011 comment letter regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building, South Kohala, Hawaii project. The Draft EA will note that the County of Hawaii Fire Deaprtment requires a fire apparatus access roads when any portion of an exterior wall of the first story is located more than 150 feet from fire department vehicle access. The Draft EA will also note, there is an exception, if the building is to be completely protected with an approved automatic fire sprinkler system.

The Draft EA will also state the project site will require an approved water supply capable of supplying required fire flow for fire protection.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

William P. Kenoi
Mayor

Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

7794-01
12/16/11
cc: API JS

County of Hawai'i

POLICE DEPARTMENT

349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

December 8, 2011

RECEIVED
DEC 12 2011
WILSON OKAMOTO CORPORATION

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

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE Job No. Q12003-07; Tax Map Key: 6-7-002:015

Dear Mr. Sakaguchi:

This responds to your request for comments on the above-referenced project.

The Draft Environmental Assessment has been reviewed, and we have no comments or objections to offer at this time.

Should you have any questions, please contact Major James O'Connor, Area II Operations, at (808)326-4646, ext. 270.

Sincerely,

HARRY S. KUBOJIRI
POLICE CHIEF

PAUL H. KEALOHA JR.
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

JO
RS110807

WILSON OKAMOTO CORPORATION

1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Chief Harry S. Kubojiri, Chief of Police
County of Hawaii
Police Department
349 Kapiolani Street
Hilo, Hawaii 96720

Attention: Major James O'Connor, Area II Operations,

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comment

Dear Chief Kubojiri:

Thank you for your December 8, 2011 comment letter regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building, South Kohala, Hawaii project. The Draft EA will state the County of Hawaii Police Department has no comments or objections to offer at this time.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

7739-05
7794-01
1/24/12

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

cc: API

January 23, 2012

RECEIVED
JAN 23 2012
WILSON OKAMOTO CORPORATION

John L. Sakaguchi
Wilson Okamoto Corporation
1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, HI 96826

PRE-ENVIRONMENTAL ASSESSMENT CONSULTATION
WAIMEA MIDDLE SCHOOL – NEW EIGHT (8) CLASSROOM BUILDING
TAX MAP KEY 6-7-002:015

This is in response to you Pre-Environmental Assessment Consultation dated November 29, 2011.

1. Water is available from an existing 12-inch waterline within Māmalahoa Highway fronting the subject parcel. Prior to issuing a water commitment for the proposed project, the Department will request estimated maximum daily water usage calculations, prepared by a professional engineer licensed in the State of Hawai'i, for review and approval. After review of the calculations, the Department will determine if the existing meter(s) serving Waimea Middle School is adequate to support the additional water demand or if a larger or additional meter will be required. Should the water demand for the new classroom building exceed the original water allocation for the school, additional facilities charges may also apply.

2. Please be informed that the existing 12-inch waterline within Māmalahoa Highway is adequate to provide 2,000 gallons per minute for fire protection, as required per the Department's Water System Standards for schools.

3. Any meter(s) serving the proposed project will require the installation of a reduced principle type backflow prevention assembly within five feet of the meter on private property. The Department must inspect and approve the installation prior to commencement of water service. Construction plans showing the proposed water system improvements must also be submitted for review and approval.

Should there be any questions, please contact Mr. Ryan Quitoriano of our Water Resources and Planning Branch at 961-8070, extension 256.

Sincerely yours,

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

RQ:dfg

...Water, Our Most Precious Resource ... Ka Wai A Kāne ...
The Department of Water Supply is an Equal Opportunity provider and employer.

WILSON OKAMOTO CORPORATION
07 South Beretania Street
tesian Plaza, Suite 400
nolulu, Hawaii, 96826 USA
none: 808.946.2277
ax: 808.946.2253
ww.wilsonokamoto.com

7794-01
June 16, 2014

Mr. Quirino Antonio, Jr. PE, Manager and Chief Engineer
Deaprtment of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, Hawaii 96720

Attention: Mr. Ryan Quitoriano, Water Resouces and Planning Branch

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Mr. Antonio:

Thank you for the January 23, 2012 comment letter regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. Our responses follow:

1. The Draft EA will include note the Department of Water Supply has indicated water is available from an existing 12-inch waterline within Mamalahoa Highway fronting the school. The Draft EA will include an estimated maximum daily water usage for the project. The information regarding additional facility charges will also be included in the Draft EA..

2. The Draft EA will include the existing 12-inch waterline within Mamalahoa Highway is adequate to provide 2,000 gallons per minute for fire protection, as required by the Department's Water system Standards for schools.

3. The Draft EA will note any meter(s) serving the classroom project will require installation of a reduced principle type backflow prevention assembly within 5 feet of the meter on the school property.

We appreciate your participation in the EA review process.

If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API

(7794-01)
12/30/11
JS
cc: API

South Kohala Traffic Safety Committee
P.O. Box 383375
Waikoloa, HI 96738

Mr. John L. Sakaguchi
Wilson Okamoto Corporation
1907 South Beretania Street, Suite 400
Honolulu, HI 96826

RECEIVED
DEC 28 2011
WILSON OKAMOTO CORPORATION

December 22, 2011

Ref: Comment on EA for the State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building, Waimea, HI; DOE JOB #Q12003-07; TMK 6-7-002:015 Request for Comment

Dear Mr. Sakaguchi;

At the regular meeting of the Committee on December 13, 2011 the membership (26 attendees) approved the following comments for your consideration in drafting the EA;

1. Lindsey Road/Mamalahoa HWY intersection heavy traffic volume puts pedestrians at risk of injury and various studies indicate that the Level of Service at the intersection will decrease to an unsatisfactory level by 2015 with no improvements in the adjacent properties. Additional students and increased classroom space will shorten this time table. Mitigation measures are needed for the safety of students and the rest of the public.
2. Currently a Waimea Regional Transit Hub Facility is being considered on adjacent property to the school property. The project is listed on the Hawaii County Capital Improvement List. The EA needs to consider this facility in the plan.
3. A student/staff drop-off and pick-up plan needs inclusion in the EA to mitigate traffic congestion and safety risk on Lindsey Road and Mamalahoa HWY.
4. A Traffic Impact Analysis Report (TIAR) should be part of the EA; or commitment of State of Hawaii Department of Education Waimea Middle School, Charter School and Elementary School to participate in a Hawaii County Traffic Management Plan renewable and updated every 5 years.
5. Hawaii Department of Education Waimea Middle School, Charter School and Elementary School needs to support, participate, monitor, encourage and develop a Pedestrian Bicycle Plan for alternative transit to and from the school campus.
6. The future planned Lindsey Road Extension project needs consideration.
7. The design and plan needs to comply with the South Kohala Community Development Plan Ordinance.

Also the Committee requests more details and data to understand how the project will impact traffic and adjacent homeowners on Mamalahoa Highway, and Lindsey Road as well as adjacent connector roads and trails. Please provide data and details for comment at one of our future meetings (2nd Tuesday every month, 4:00 PM at the Waimea Civic Center conference Room) or by mail. I can be contacted at 883-2918 or whao@hawaii.rr.com .

Thank you for this opportunity to comment and receive a copy of the draft EA upon report completion.

Sincerely,

Mike Price-Chair South Kohala Traffic Safety Committee

CC: SKTSC
B. J. Todd-Leithead – Director Hawaii County Planning Department
Warren Lee – Director Hawaii County Department of Public Works
Councilman Pete Hoffmann – Hawaii County Council

WILSON OKAMOTO CORPORATION

1907 South Beretania Street
Artesian Plaza, Suite 400
Honolulu, Hawaii, 96826 USA
Phone: 808.946.2277
Fax: 808.946.2253
www.wilsonokamoto.com

7794-01
June 16, 2014

Mr. Mike Price, Chair
South Kohala Traffic Safety Committee
P.O. Box 383375
Waikoloa, Hawaii 93738

Subject: Draft Environmental Assessment, Pre-Assessment Consultation;
Waimea Middle School New Eight Classroom Building
Parker Ranch, South Kohala, Island of Hawaii
DOE JOB No. Q12003-07; Tax Map Key: 6-7-002:015
Response to Comments

Dear Mr. Price:

Thank you for your December 22, 2011 comment letter (HRD11/6043) regarding the proposed State of Hawaii Department of Education Waimea Middle School New Eight Classroom Building project. Our responses follow.

1. The Draft EA will state the purpose of the new classroom building is to replace existing science and computer classrooms with modern classrooms and laboratories. This will reconfirm the information stated in the Pre-Assessment summary. As such, the classroom project is not in response to space needed for additional students. The Draft EA will also note the scope of the project does not include off site improvements to State or County roadways.

2. The classroom building will be sited near four existing portable classrooms within the boundaries of existing campus. The Draft EA will note the off-site presence of Hawaii County transit facility.

3. The Draft EA will state that the one-way access driveway connecting to Lindsey Road was completed in August 2010 and will remain with no changes as to its use. This access driveway is open in the morning for drop off of students and in the afternoon for pick up of students. At other times, the access driveway will be closed. At the beginning of the school year, the School sends out a notice to parents regarding use of the access driveway and other matters related to parking at the campus. Over the years, the School has worked to alleviate issues related to access and parking conditions at the campus.

4. As previously stated, classroom building is not in response to additional students, as such a traffic impact analysis report will not be conducted as part

of the Draft EA. The School would be willing to participate in the County's Traffic Management Plan.

5. The Draft EA will note Waimea Elementary and Middle School is an integral part of the Waimea community. However, off site transportation plans are typically developed by the State or County agencies. If such plans have components relevant to the School's students, if requested, the School would be willing to review and comments on such plans.

6. The Draft EA will note the future Lindsey Road Extension, including its historical background, shows studies dating to the early 1970's discussing the Lindsey Road Extension.

7. The Draft EA will include information on Hawaii County Plans and Policies including the South Kohala Community Development Plan.

8. The Draft EA will note previously completed traffic studies and plans as they relate to the area of the School.

We appreciate your participation in the EA review process.

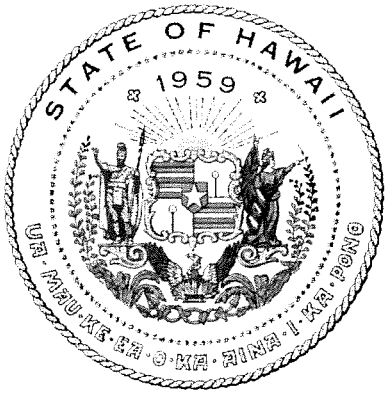
If you have any questions, please call me at 808.946.2277 or fax to 808.946.2253.

Sincerely,

John L. Sakaguchi, AICP, Senior Planner

JS/dh

cc: Mike Shigetani, DOE
Calvin Nishio, API



APPENDIX B

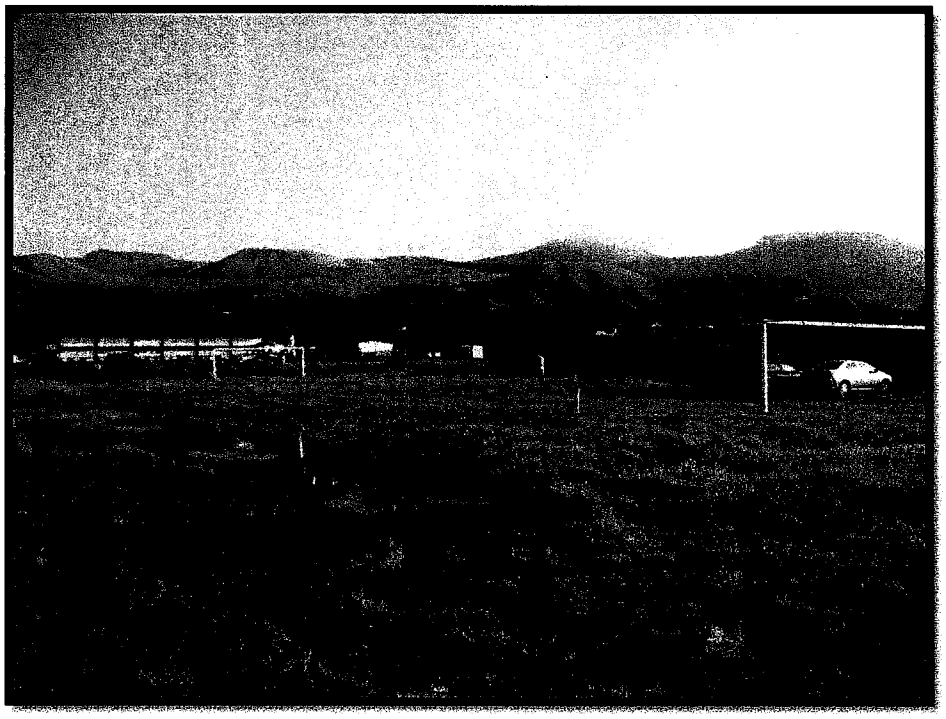
899-060514

DRAFT

ARCHAEOLOGICAL INVENTORY SURVEY

WAIMEA MIDDLE SCHOOL EIGHT CLASSROOM BUILDING

HAWAII DEPARTMENT OF EDUCATION JOB NO. Q012005-07



LAND OF WAIKOLOA, SOUTH KOHALA DISTRICT

ISLAND OF HAWAI'I

PORTION OF TMK: (3) 6-7-02:015

HAUN & ASSOCIATES

ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL RESOURCE MANAGEMENT SERVICES
73-1168 KAHUNA A'O ROAD, KAILUA-KONA HI 96740
PHONE: 808-325-2402 FAX: 808-325-1520

899-060514

DRAFT

ARCHAEOLOGICAL INVENTORY SURVEY

WAIMEA MIDDLE SCHOOL EIGHT CLASSROOM BUILDING

HAWAII DEPARTMENT OF EDUCATION JOB NO. Q012005-07

LAND OF WAIKOLOA, SOUTH KOHALA DISTRICT

ISLAND OF HAWAI'I

PORTION OF TMK: (3) 6-7-02:015

Prepared by:

Alan E. Haun, Ph.D.
and
Dave Henry, B.S.

Prepared for:

Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826

January 2011
(Revised June 2014)

HAUN & ASSOCIATES

ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL RESOURCE MANAGEMENT SERVICES
73-1168 KAHUNA A'O ROAD, KAILUA-KONA HI 96740
PHONE: 808-325-2402 FAX: 808-325-1520

MANAGEMENT SUMMARY

Haun & Associates has conducted an archaeological inventory survey of the Waimea Middle School New Eight Classroom Building Project doe Job Q12003-7), located within an approximately 5.2-acre portion of TMK (3) 6-7-02:15 in Waikoloa Ahupua'a, South Kohala District, Island of Hawai'i. TMK (3) 6-7-02:15 is 25.796-acres in area and is occupied by the existing Waimea Elementary and Intermediate School Facility. The objective of the survey was to satisfy historic preservation regulatory review requirements of the Department of Land and Natural Resources-Historic Preservation Division (DLNR-SHPD), as contained within Hawaii Administrative Rules, Title 13, DLNR, Subtitle 13, State Historic Preservation Rules (2003).

The survey of the project area identified a curvilinear depression interpreted as a possible section of an historic irrigation ditch or *auwai.* Portions of this depression roughly correspond to a ditch depicted on a 1915 map of the area; however, the curved depression is atypical of historic irrigation ditches and cannot be correlated with certainty to a known ditch. The ditch is interpreted as a possible feature of Site 9179; a site complex that includes an extensive late prehistoric to early historic dendritic *auwai* system crossing this portion of Waimea.

Subsurface testing during the project consisted of excavating of five backhoe trenches, situated within and adjacent to the footprint of the proposed school building. These excavations revealed similar soil stratigraphy with from two to three layers of culturally sterile soil with no cultural remains present. One trench was excavated across the reported path of an historic ditch; however, no evidence of this ditch was found during the trenching.

The portions of the possible *auwai* identified in the project area are assessed as significant for information content. The mapping, written descriptions and photography adequately documents the site and no further work or preservation is recommended.

Cover photo: Overview of Waimea Middle School (view to north)

CONTENTS

FIGURES

TABLES

INTRODUCTION

At the request of Wilson Okamoto Corporation, a contactor to the Hawaii Department of Education, Haun & Associates conducted an archaeological inventory survey of the Waimea Middle School New Eight Classroom Building Project (Hawai'i Department of Education DOE Job No. Q012005-07), a c. 5.2-acre portion of TMK (3) 6-7-02:15 situated in the in the Land of Waikoloa, South Kohala District, Island of Hawai'i (**Figures 1** and **2**). TMK (3) 6-7-02:15 is 25.796-acres in area and is occupied by the Waimea Elementary and Intermediate School Facility. The objective of the survey was to satisfy historic preservation regulatory review requirements of the Department of Land and Natural Resources-Historic Preservation Division (DLNR-SHPD), as contained within Hawaii Administrative Rules, Title 13, DLNR, Subtitle 13, State Historic Preservation Rules (2003, Chapter 275).

Haun & Associates conducted the survey fieldwork on July 16, 2010 and May 29, 2013 under the direction of Dr. Alan Haun. The field work portion of the project required five person days to complete. This final report presents the project scope of work, field methods, background information, survey findings, and site significance assessments with treatment recommendations.

Scope of work

Based on DLNR-SHPD rules for inventory surveys the following specific tasks were determined to constitute an appropriate scope of work for the project:

1. Conduct background review and research of existing archaeological and historical documentary literature relating to the project area and its immediate vicinity--including examination of Land Commission Awards, *ahupua'a* records, historic maps, archival materials, archaeological reports, and other historical sources;
2. Conduct a high intensity, 100% pedestrian survey coverage of the project area;
3. Conduct detailed recording of all potentially significant sites including scale plan drawings, written descriptions, and photographs, as appropriate;
4. Conduct limited subsurface testing (manual excavation) at selected sites to determine feature function;
5. Analyze background research and field data; and
6. Prepare and submit Final Report.

Project area description

The project area is a c. rectangular-shaped c. 5.2-acre portion of the existing Waimea Elementary and Intermediate School facility, located within the town of Waimea. The parcel ranges in elevation from 2,680 to 2,690 ft and is surrounded by the remainder of the school facility to the northwest and by undeveloped school property on the remaining sides (**Figure 3**). The majority of the project area (3.9-acres or 75%) has been disturbed, likely during the construction of the school facility (**Figure 4**). There are four existing classroom buildings present within the subject parcel. A fire lane extends into the northern portion of the project area and an existing garden area is present along the eastern side. Earthen berms extend along the west and south sides of the garden. A newly constructed gravel road extends from the fire lane to the northeast and a large leach field area is located

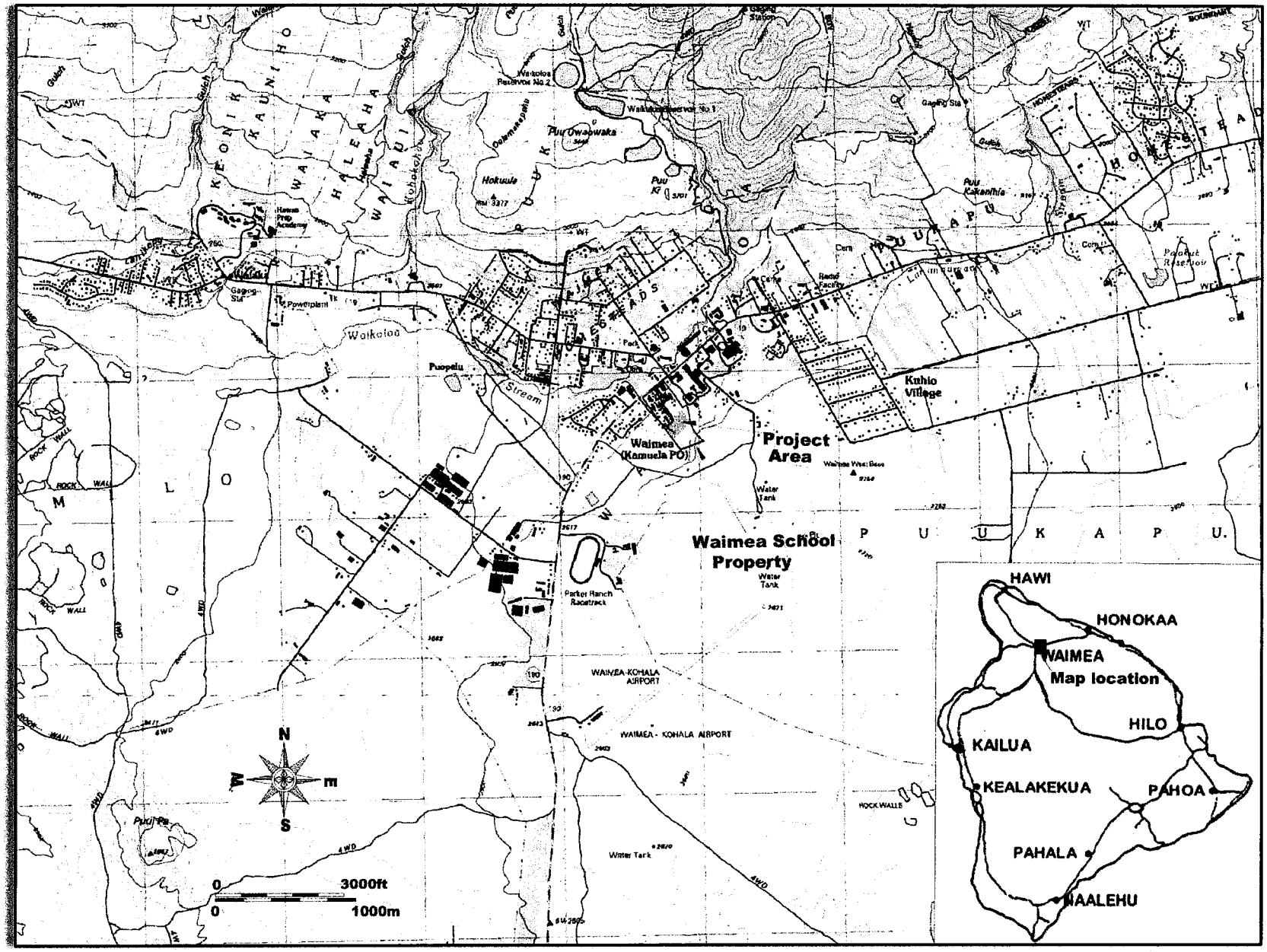


Figure 1. Portion of 1998 USGS 7.5' Kamuela quadrangle showing project area

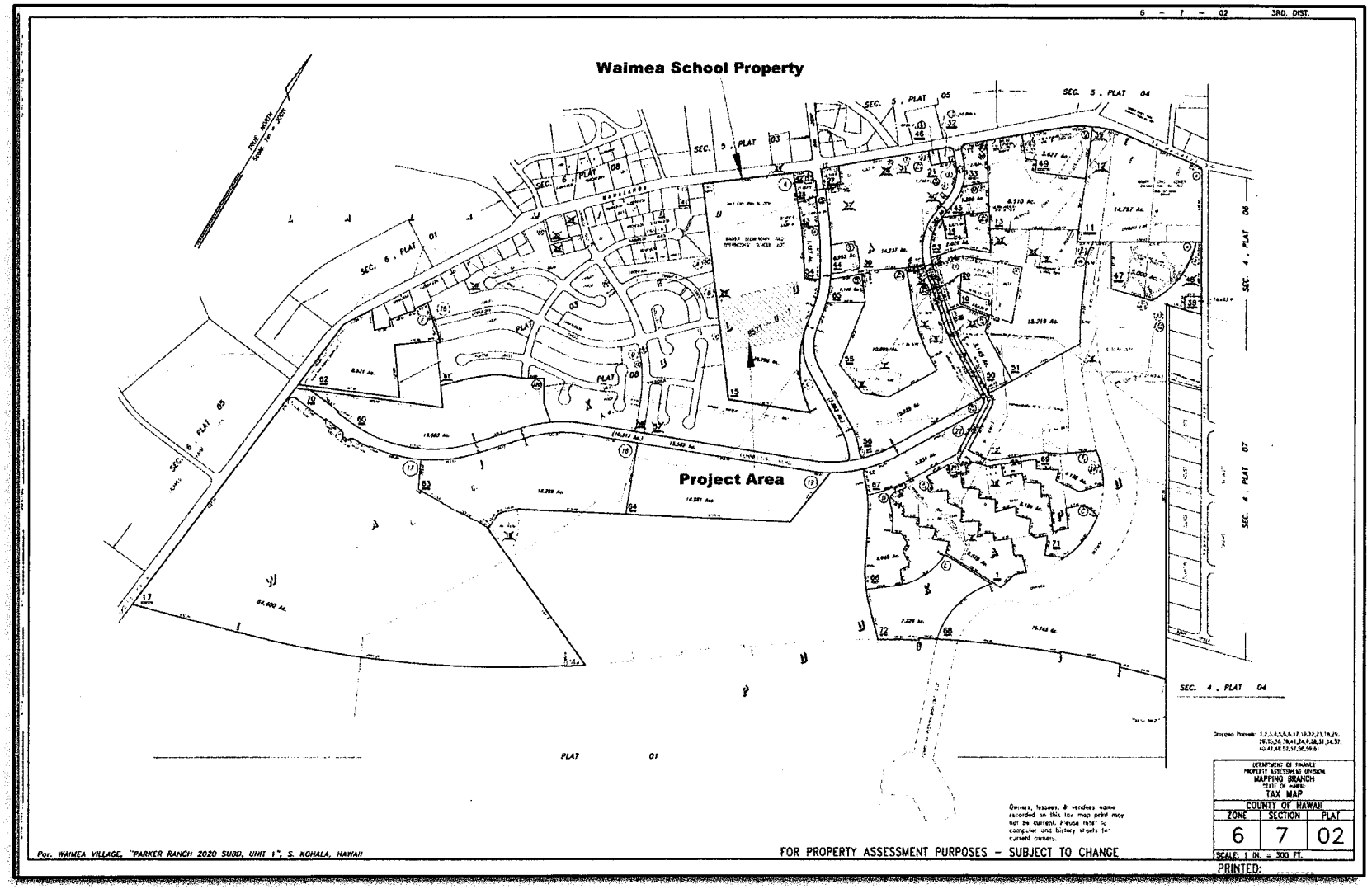


Figure 2. Tax Map Key 6-7-02 showing project area

Figure 3. Aerial view of project area (from Google Earth)

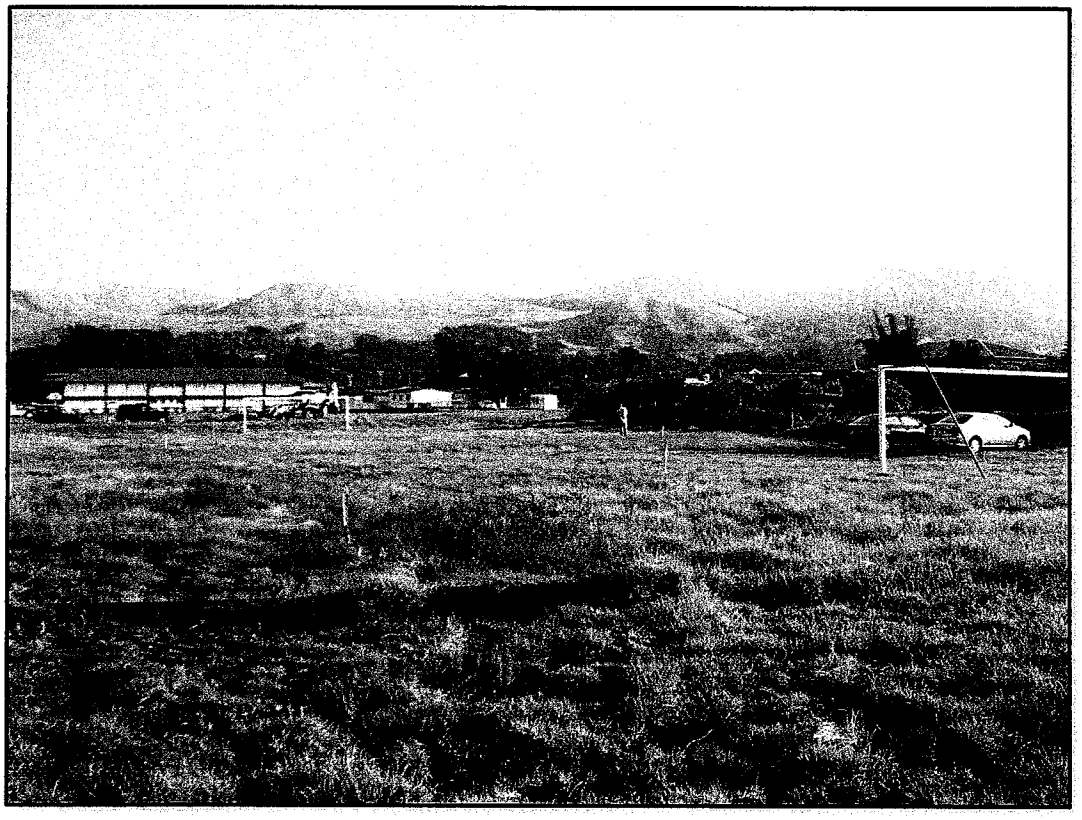


Figure 4. Overview of project area (view to north)

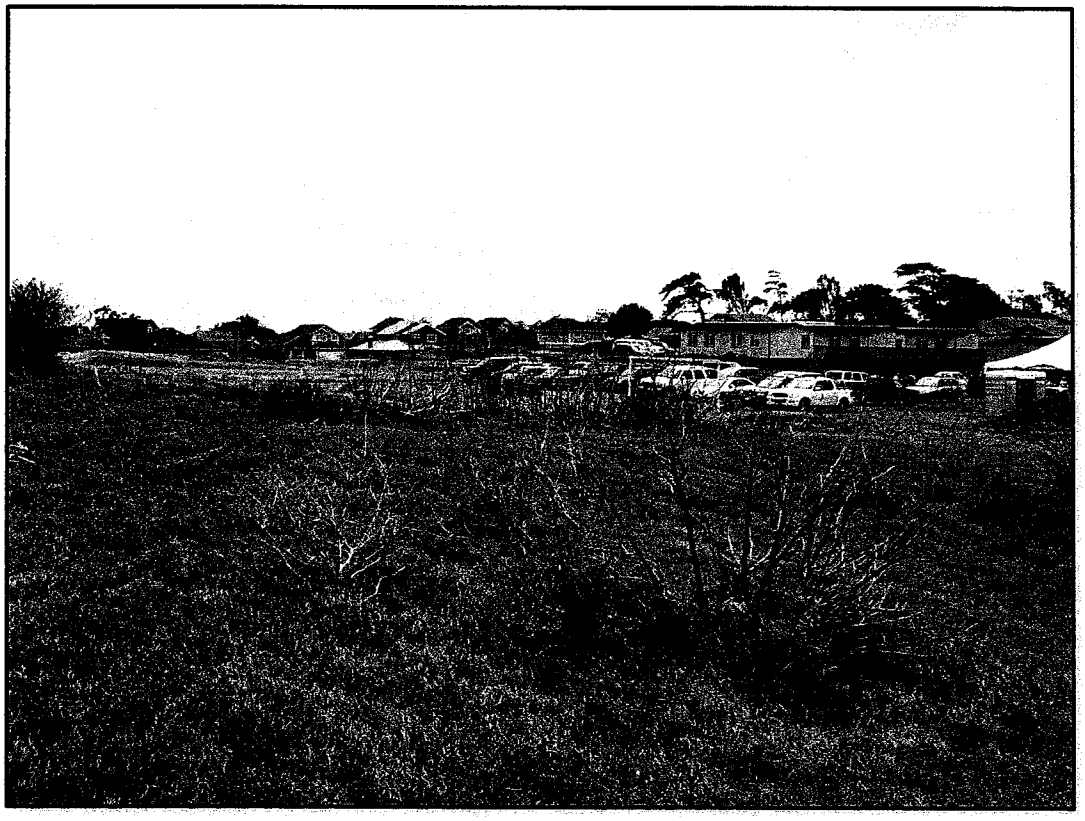


Figure 5. Overview of project area (view to west)

along the southeastern side. A cow bone and a large *Cellana* sp. shell are present in the southern portion of the leach field, along the southern project area boundary.

The remaining portion of the project area (1.3-acres or 25%) is undisturbed. This portion of the parcel is comprised of uneven terrain with vegetation consisting of low grasses, morning glory (*Ipomoea* spp.), castor (*Ricinus communis* L.), and scattered *ilima (Sida fallax* Walp.) and pine (*Pinus* spp.). This portion of the project area, taken during a drier period, is presented in **Figure 5**.

The soil in the project area is Waimea very fine sandy loam on 6-12% slopes (Sato et al. 1973). The soil profile is comprised of a 2" thick surface layer of a very dark brown sandy loam, over a series of four sandy loam to silty loam subsoils. These soils terminate on a weathered hard basalt substrate at c. 42 inches in depth. This soil has a rapid permeability, a slow runoff and a slight erosion hazard and is classified as suitable for pasture and truck crops (1973:58). The underlying lava in this area is derived from Pleistocene era Hamakua volcanoes deposited between 65-70,000 and 200-250,000 years ago (Wolfe and Morris 2001).

Methods

The project area was subjected to a 100% surface pedestrian survey with surveyors spaced at 10 meter intervals. Ground surface visibility throughout the parcel was excellent. One site was identified during the project, consisting of a possible historic ditch or *auwai.* This site was subjected to detailed recording consisting of the preparation of a site map and a standardized site form, and photographic documentation. The location of the site was georeferenced with the assistance of a Garmin Global Positioning System (GPS) Model 60-series device using the World Geodetic Survey (WGS) 1984 datum. The accuracy of the GPS device for a single point is +/- 3–5 meters. This accuracy is increased to approximately 2–3 m by recording multiple georeference points, including property corners and overlying the plotted points on a scaled map using AutoCAD software.

Subsurface testing during the project consisted of the excavation of five backhoe trenches, located within the footprint of the proposed classroom building (see **Figure 14** in Findings section). An archaeologist monitored the excavation of all of the trenches. The trenches were excavated using a Komatsu backhoe with a 2 foot wide bucket. All trenches were excavated into culturally sterile soil. Trench locations were also determined with the Garmin Model 60-series GPS device.

Following excavation, the trench walls were manually scraped to examine and document the stratigraphy. A profile drawing and a stratigraphic record form were prepared using the Munsell soil color notation system and U.S. Soil Conservation Service descriptive terminology. The trenches were photographed and following documentation, were backfilled. No cultural remains were recovered for analysis.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Historical Documentary Research

Haun et al. (2003), Welch (1989) and Barrere (1971, 1983) discuss the traditional land divisions of Waikoloa and the adjacent lands (**Figure 6**). Their research focused on Land Commission Award (LCA) testimony, Boundary Commission testimony, and other historic documents. In earlier times, Waimea was a sub-district of Kohala that included all of the land in the district south of Waikoloa Stream. Waimea was composed of eight subdivisions with the majority of the district being composed of the *'ili* of Waikoloa and Pu`ukapu. The remainder consisted of the *'ili* of Wai`aka, Lalamilo, 'Anaeho'omalu, Kalahuipua'a, Puako, and Ouli.

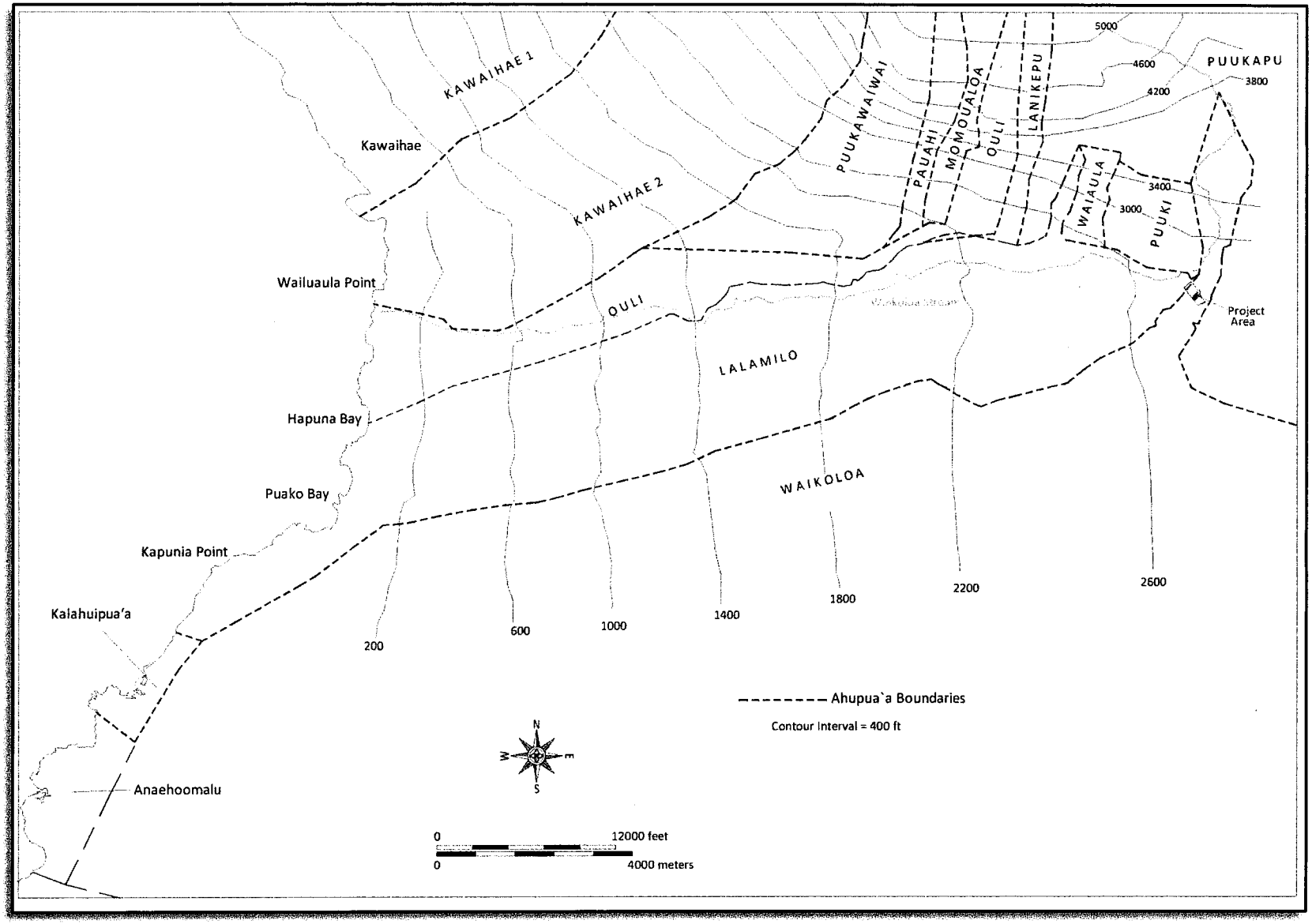


Figure 6. Ahupua'a boundaries

At the *Māhele,* Waikoloa was deemed Crown land of which Isaac Davis received a large portion. Waikoloa (LCA 8521-B) was sometimes referred to as "Waikoloa Nui" and "Waikoloa Iki", differentiating between the Crown land and Davis' land respectively. The Crown land portion later became known as Lalamilo and Davis' portion simply Waikoloa. The coastal lands of 'Anaeho'omalu and Kalahuipua'a were retained by the Crown as *'ili kupono.* Kamehameha III gave these lands to his wife Kalama (LCA 4452). 'Anaeho'omalu was claimed by Kahenehene (LCA 4100), but she relinquished it (Maly 2000:19).

Following is a brief summary of the traditional and legendary associations of the Waimea area, to give the project area a frame of reference for cultural importance and use during traditional times. "In the early days Waimea meant all the plateau between the Kohala Mountains and Mauna Kea, inland from Kawaihae. This area is from eight to ten miles long and from three to five miles wide" (Judd: 1932:14). The name Waimea means "reddish water" (Pukui, et al., 1974:226) due to the discoloration of the water from the rich fertile soil found there. Albert Lyons described Waimea's water as ". . . no sweeter or purer water anywhere on earth, despite the sherry-like tint it has taken from the forest morass at its source" (Lyons *in* Doyle 1945:45).

From ancient times, Waimea has been associated with royalty and chiefly lineages. Waimea was one of the lands which was highly valued by the *ali`i* (chiefs) and traditional stories indicate they maintained a dominant presence there. Waimea was also a renowned training ground for young chiefly warriors from ancient times.

At least three *heiau* are mentioned for the Waimea area. The High Chiefess Hoopiliahae built and dedicated a Haleino Heiau approximately two miles from Waimea in the forest on the Lanikepu Hills in the Ahupua`a of Ouli. Makuakuamana, who came with Paao from Tahiti, built a *heiau* on the land of Waiaka. Sometime between 1797 and 1811, while Kamehameha was living with the chiefs of Waimea, he restored the *heiau* of Uli in Waimea that was initially dedicated by Hakau.

Descriptions from early visitors, *Māhele* records, and native testimony (Carter vs. Territory of Hawai`i:1914-1915) indicate the native forest once extended much lower into the upland plains than it does today. Portions of the project area were probably comprised of sandalwood forest up until the early 1800s. Depletion of the forest zone no doubt affected general rainfall and precipitation patterns as well as the notoriously strong *mumuku* winds that originate in the Waimea area and blow down to Kawaihae.

Although the sandalwood trade did not really accelerate until 1810 or 1811, sandalwood was imported on a small scale as early as 1790 (on Kaua`i). In the early 1800s, Hawai`i began exporting sandalwood to the Orient. The early records say the first shipments were of poor quality and therefore unsellable. However, in 1811, three American entrepreneurs signed a contract with Kamehameha to have exclusive rights to export sandalwood from Hawai`i. In return, Kamehameha received one fourth of the net profits. Thus, trade in sandalwood became the strict monopoly of the *ali`i.* At the height of the sandalwood boom, Kamehameha bought foreign ships, including six vessels between 1816 to 1818, to transport his own wood to the Orient (Kuykendall 1965:87). After Kamehameha's death in 1819, Liholiho (Kamehameha II) allowed his chiefs to share in the sandalwood trade, resulting in an unrestricted demand on the stocks of the wood and upon the commoners who did the harvesting. As a result, the common people of the land suffered many hardships to meet the demands of the *ali`i.* The commerce flourished until the supply dwindled in the mid-1830s and by early 1840s the industry came to a standstill. Wilkes reported that "there are now no trees left larger than mere saplings" (1845:217).

Vancouver's trip had monumental impacts for Waimea and the Hawaiian Islands. It was on two separate trips 1793 and 1794 that Vancouver presented Longhorn cattle, along with some sheep to Kamehameha as a gift. At the request of Vancouver, Kamehameha put a ten-year *kapu* on the cattle. They were not to be touched or hunted, but were left to breed and multiply. The cattle were taken to a large penned area in upland Waimea

which was ". . . very rich and productive, occupying a space of several miles in extent, and winding at the foot of . . . lofty mountains far into the country. In this valley is a great tract of luxuriant, natural pasturage, whither all the cattle and sheep . . . were to be driven, there to roam unrestrained, to "increase and multiply" far from the sight of strangers" (Vancouver *in* Kuykendall 1965:28, 40-41). Along with cattle, other early western visitors introduced goats, horses, a new pig breed, and new vegetable, fruit and plant varieties. Kawaihae and its port became the impetus for the development of trade and commerce. Waimea provided much of the produce and later on, salted beef, to refurbish supplies for foreign ships.

Under the protection of the *kapu*, the Longhorn cattle left by Vancouver in 1793 and 1794 rapidly multiplied beyond manageable control. Left to roam the surrounding lands on their own, the cattle were undomesticated and feral. Less than ten years after their arrival in the islands, a visitor wrote that the *kapu* ". . . was most rigidly preserved till that time expired . . . Though the inhabitants themselves have frequently suffered thus severely from their [the cattle's] incursions, they have closely adhered to the condition of the original gift . . . The animals have become so wild, that none of the natives dare approach them; so that, ranging at their full liberty, they have destroyed the fences, trampled down the crops and done much other damage (Turnbull 1813: 243). By 1858, the wild cattle on Mauna Kea were estimated to number 10,000 (Doyle 1945:49).

Ironically, the California Gold Rush impacted the economy of Waimea as well as other parts of the Hawaiian Islands. There was a shortage of Irish potatoes and vegetables on the West Coast. Traditionally, Hawaiians had always grown sweet potatoes and had been supplying provisioning ships since contact (1778). Prior to the Gold Rush craze, Irish potatoes were already being grown in Waimea on a small scale. With the demand of early settlers in California, Waimea farmers were able to quickly benefit by increasing their production and shipping barrels of sweet potatoes and Irish potatoes to California. Other vegetables, along with sugar, molasses and coffee were also exported during this same time (Kuykendall 1965: 313-314; 322-321).

The cattle caused havoc for Hawaiian farmers who traditionally did not put up fences around their gardens and who kept non-contiguous agricultural plots scattered here and there. To combat the problem after the 10-year *kapu* was lifted, Kamehameha I hired bullock catchers to hunt the cattle and shoot them. As the cattle were originally a gift to Kamehameha I, they technically belonged to the Crown. Thus bullock hunting was controlled by the king and his chiefs. Selling salted beef to provisioning ships at Kawaihae became another economic market for the government. In 1831, Kuakini (Governor Adams) hired William Hughs, a foreigner, to act as his bullock catcher. In the 1830s cattle were hunted to such an extent that in 1841 the Government placed a five-year *kapu* on killing cattle only for their hides and tallow (Brundage 1971: 9). This suggests perhaps that some underhandedness on the part of the bullock hunters was taking place. The Government continued to be involved in the cattle business. In 1847, William Beckley was responsible for branding the Government cattle. In 1848, John Needles was employed by the Government to slaughter, butcher, pack and sell cattle for the Government. His pay was $40 per month plus 25 cents for each head killed and the offal to pay his work help (*Ibid.*). Lorenzo Lyons commented on the problem of cattle in Waimea:

> "Pilikia" enters cattle history in 1847...two thirds of Waimea has been converted into government pasture land. People are compelled to leave their cultivated spots and seek distant corners of the woods beyond the reach of the roaming cattle, sheep and goats. But the cattle follow, and soon destroy the fruit of their labors. "There is a despairing spirit among my people, and great suffering among them."

One of the renowned bullock hunters was John Palmer Parker who settled in Hawai`i in 1815. He became friends with John Young and spent much of his early years at Kealakekua, where Kamehameha held court. After the death of Kamehameha in 1819, Parker moved to Waiapuka in Kohala with his *ali`i* wife, Kipikane, and their new-born daughter (Wellmon 1970: 20-26).

In the 1840s, a political act of the Hawaiian Kingdom government would forever change the land tenure system in Hawai`i and have far-reaching effects on its people. The historic land transformation process was an evolution of concepts brought about by fear, growing concerns of takeovers, and western influence regarding land possession. King Kamehameha III, in his mid-thirties, was persuaded by his *kuhina nui* and other advisors to take a course that would assure personal rights to land. One-third of all lands in the kingdom would be retained by the king; another one-third would go to *ali'i* as designated by the king; and the last one-third would be set aside for the *maka`ainana* or the people who looked after the land. In 1846, King Kamehameha III appointed a Board of Commissioners, commonly known as the Land Commissioners, to "confirm or reject all claims to land arising previously to the 10th day of December, AD 1845." Notices were frequently posted in *The Polynesian* (Moffat and Kirkpatrick, 1995). However, the legislature did not acknowledge this act until June 7, 1848 (Chinen 1958:16; Moffat and Kirkpatrick 1995:48-49) and the act is known today as *The Great Māhele*. In 1850, the Kingdom government passed laws allowing foreigners to purchase fee simple lands (Speakman 2001:91).

The Waihona 'Aina Mahele Database (Waihona 'Aina Corp. 2000); which is a compilation of data from the Indices of Awards (Indices 1929), Native Register (NR n.d.), Native Testimony (NT n.d.), Foreign Register (FR n.d.) and Foreign Testimony (FT n.d.); lists only four Land Commission Award (LCA) claims for Waikoloa Ahupua'a. However, examination of current tax maps and the Waihona 'Aina Mahele Database identified 12 claims in the vicinity of the project area, all of which state they are in the *ahupua'a* of Waimea. The Waihona 'Aina Mahele Database lists Waikoloa as an *ili* of Waimea, along with 32 others. These additional *ili* consists of Ahuli, Amanui, Hopeo, Kaaihee, Kahhiolouka, Kapalawa, Kapuuili, Keanuiomano, Keauhou, Kikiaola, Kiponaiki, Koolanui, Koolaiki, Kukulu, Mahinauli, Nania, Napooakolu, Nukunui, Ouli, Papaa, Paiwi, Paulama, Papaenaena, Peekauai, Pokii, Puehulunui (Pueohulunui), Pukalani, Puukapu, Puako, Waiahole, Waialae and Waluohia.

These 12 claims are presented in **Figure 7** and are summarized in **Table 1**. Eleven of the LCAs are located within approximately one half mile from the project area and range in size from 0.87 to 21.9 acres. The remaining LCA (8521-B:1) was awarded to Isaac Davis' son George Hueu Davis and comprises large portions of Waikoloa Ahupua'a.

Table 1. Land Commission Awards in vicinity of project area

LCA	Claimant	Ahupua`a	Ili	Land Use	Date Rec'd	Received from	Acres	Royal Patent	Sources
236-O	Maika McDurmid	Waimea	Paulama	Houselot in Paulama with 2 houses	1848	?	-	7293	NT 4:330
987	William Hughes	Waimea	Pukalani	Houselot enclosed by wall with 3 grass houses	1844	A. Allen	1.03	8444	NT 4:45, NT 4:99, FR 2:125-126
988	John Collins	Waimea	Waluohia	Houselot partially enclosed by wall, 4 grass houses	1833	Kuakini	1.34	7542	FR 2:130, NT 4:45
2271	Oili (Mrs. J.A. Simmons)	Waimea	Pukalani	Houselot	1847	Beckley	3.52	5561	FR 2:148-149, NT 4:145-146
3682*	Mahu	Waimea	Nohoaina, Puukaalani Alaohia	Houselot with 3 houses	pre-1844	G.H. Davis	1.1	6787	NR 8:43, NR 8:66, NT 4:33
4026	John Thomas	Waimea	Paulama	Houselot with 2 houses - Bisected by Lyons' *auwai*	1846	Beckley	1.7	6253	NT 14:41, NR 5:55
4037	A.D. Allen	Waimea	Paulama	Houselot partially enclosed by wall, 2 houses	1844	Beckley	3.83	-	NT 14:41, FR 3:1, FR 5:67
4129	Kaumu	Waimea	Kaikoloa	Sugarcane land, 4 taro *mala*, 1 banana plantation, 2 houses	1819	G.H. Davis	0.87	-	NR 8:64, NT 4:37-38
4198	Kaaunahi	Waimea	Pukalani Alaohia, Nohoaina	Houselot at Pukalani with 4 houses, Houselot in Nohoaina	1845	Beckley	1.96	-	NR 8:57, NT 4:33-34
4233	E. Kahuhu	Waimea	Paulama	Houselot with 6 houses and an *auwai*	1845	Beckley	3.83	8448	NT 4:28
4885	William French	Waimea	Ahuli	-	-	-	21.9	-	FR 5v3
8521-B:1	G.H. Davis	Waimea	Waikoloa	Claim covers large portions of Waikoloa Ahupua'a	pre-1819	Kamehameha	-	5671	

*** - Not depicted on map**

Figure 7. Land Commission Awards and Land Grants in the vicinity of project area (from Google Earth)

The LCAs in close proximity to the project area were awarded between 1819 and 1848, with the majority awarded in the mid-1840s. Nine of these claims cite the presence of house lots with a total of 28 houses mentioned. Seven of the houses are listed as "grass houses". One claim (4129 to Kaumu) indicates that sugarcane, taro, and bananas were cultivated and one claim (4026 to John Thomas) indicates that the parcel was bisected by Lyons *'auwai.*

Figure 7 also depicts five Land Grants in the vicinity of the present project area. These grants are summarized in **Table 2**. According to the Waihona 'Aina Mahele Database (Waihona 'Aina Corp. 2000), the grantees consist of Edmund Bright (Grant 481), the Annie T.K. Parker Trust (5183), Ella Duncan (5977), Kahoohanohano (5978) and the Annie T.K. parker Trust and Alfred W. Carter (6787). Little information concerning these grants is available, though Grant 481 to Edmund Bright was received in 1850 and was 2.86 in area.

Table 2. land Grants in vicinity of project area

Grant	Grantee	Ahupua'a	Ili	Date Rec'd	Acres
481	Edmund Bright	Waimea	Waikoloa	1850	2.86
5183	Annie T.K. Parker Trust	Waimea	-	-	-
5977	Ella Duncan	Waimea	-	-	-
5978	Kahoohanohano	Waimea	-	-	-
6787	Annie T.K. Parker Trust and Alfred W. Carter	Waimea	Pukalani	-	-

Beginning in the 1830s and 1840s, Hawaiians began to be employed by the influx of foreigners cashing in on hunting cattle and related business pursuits such as tanneries, shoemaking, etc. However, Hawaiians often traded labor for food rather than getting paid with money. As cash crops failed, Hawaiians became even more dependent on foreigners for money. In 1849, there seems to have been a slight shift in the foreign population as quite a few left for California in hopes of striking it rich in the Gold Rush (Doyle 1945: 137). Changes in land tenure initiated by the *Māhele* also contributed to changing agricultural practices and population shifts. By the 1860s, the *pulu* business was failing. Many Hawaiians, having already abandoned their fields, were increasingly dependent on foreigners for cash. In 1860, Lyons lamented about the constantly fluctuating foreign population on whom the Hawaiians depend on for money (*Ibid.*: 176). By the 1860s there was also "very little demand for Irish potatoes" and Kawaihae Uka potatoes were "few, and poor and dear" (*Ibid.*:176, 194).

In 1850, John Parker purchased 640 acres of land at Mana from the Hawaiian Government. The following year, Parker purchased an additional 1,000 acres. In 1852, Kamehameha III granted a lease to Parker for the lands of Waikoloa, giving Parker the competitive edge to control the developing ranching industry (Wellmon 1970:75). Parker's grandson, Samuel Parker, purchased 'Anaeho'omalu and Kalahuipua'a from the estate of Charles Kanaina, Queen Kalama's uncle, in 1878 (Barrere 1971). These lands were used by the ranch for recreation, fishing, and aquaculture.

It seems by 1860 the Hawaiian population at Waimea had shifted to a near cash-based economy and taxes were being required in money rather than in goods. This was probably an outgrowth of selling a variety of cash crops to provisioning ships since the early 1800s -- vegetable produce, sweet potatoes, Irish potatoes and *pulu*. An 1860 notation from Rev. Lyons' diary is very revealing and shows the difficulty some people had in meeting the cash-based tax requirements put on them. As a result many sold their lands to pay taxes or, being unable to pay, their lands were auctioned off. Displacement from the land was the sad result.

> Here is the Government Tax Collector. He goes over the district and collects on the first tour -- say ten dollars of the $1600, whole sum. He has taken all the money there is. He notifies the people that he shall be around again in two weeks, and they must be ready. He makes a second and third, or fourth, or fifth, or sixth tour, collecting sometimes more, sometimes less.

> Meanwhile the people are working with all their might, selling their property, going off to other Islands to beg money of friends, or to sell property in time to pay the tax. Then for unpaid taxes property must be attached, and sold at auction at great sacrifice. (Doyle 1945: 177)

The 1870s heralded several new businesses in Waimea which now had five stores and a hotel as well as the company of Spencer, Green & Macfarlane who raised sheep (*Ibid.*: 200, 204, 218). An 1870 diary entry by Lyons gives the passing away of traditional lifestyle in Waimea a sense of finality -- Papa, the last grass thatcher in Waimea, passed away (Doyle 1945: 206).

In the year 1914, Alfred Carter, on behalf of his trustee, Thelma Parker, filed a petition against the Territory of Hawai`i and 62 individuals over appurtenant water rights to Waikoloa Stream for the purposes of irrigation. Carter alleged that in 1905 the Territory wrongfully diverted water from Waikoloa stream when it constructed a dam and ran connecting pipe-lines from the stream above the lands of the petitioner (Carter) to Waimea Village (Hawaiian Reports Vol. 24: 49). In essence, Carter was protecting the interests of Parker Ranch and their right to utilize water from Waikoloa Stream for purposes other than normal household use (e.g., irrigation for pasturelands). The majority of the respondents did not show up and the Territory of Hawai`i was the only one to contest Carter's claim. The "Hawaiian Report" summarized the case as follows:

> This is a proceeding . . . for the purpose of determining water rights in the Waikoloa stream, at Waimea, Island of Hawai`i . . . In the petition the petitioner's ownership of certain lands was alleged and the right to the quantities of water claimed as appurtenant thereto for irrigation purposes by immemorial custom was stated as follows: An area of 94.3 acres at Kaomaloo, within and a part of the ili of Waikoloa, through the ditch known as the "Lyons" ditch, not less than 940,000 gallons per day; three *kuleanas* in the government land of Waikoloaiki, comprising an area of about nine acres, through a ditch (called Lanakila), not less than 95,000 gallons per day; five *kuleanas* in the government land of Lalamilo (adjoining Waikoloa), and a grant (R. P. 1157) of a parcel of land containing an area of 250 acres at Lihue (stipulated to be a portion of the "land or so-called ahupuaa" of Waimea), not less than 2,000,000 gallons per day through the ditch known as the "Akona" ditch. Also water for domestic use upon a parcel of land described in a deed from Kamehameha IV to Waimea Grazing Co., adjoining Waikoloa stream; and the right to the surplus freshet water of the stream as it flows into and upon the *ahupuaa* of Ouli (adjoining Lalamilo) was claimed. (*Ibid.*: 49-50)

The record seems to suggest that this was the first modernization of a water system in the South Kohala district. Prior to the dam being built, Waimea residents received their water from the streams and from a series of ancient *`auwai* (ditches) which had been in use from "time immemorial" (Nakamura 1982:19; Carter vs. Territory of Hawai`i: 17-18). Handy, Handy and Pukui described the utilization of the ditch system by the Hawaiians.

> . . . With farms along the water system upon which all depended, a farmer took as much as he required and then closed the inlet so that the next farmer could get his share of water -- and so it went until all had the water they needed. This became a fixed thing, the taking of one's share and looking after his neighbor's rights as well, without greed or selfishness (1972: 58).

What is remarkable about this case is the native and foreign testimony, where there would otherwise be none, from informants with first-hand knowledge of the *`auwai* system and agricultural practices in the area. The testimonies describe the various land areas and provide glimpses into the lives of Hawaiians living during that time. Most of the informants were born around the mid-19th century, around the time of the *Māhele*. Many of the informants recalled seeing the water run through the ditches to various lands where people were living or seeing the remnant ditches no longer in use of settlements long gone. An important point made clear by the testimonies

was that the water was used for domestic household use and not for large-scale irrigation. The point being made that in the "old days" there was no need to irrigate on a large scale because there was usually enough rainfall -- even on what local residents today consider the "dry" side of Waimea. However, if there was water to spare and plants needed watering, they were irrigated. Lucy Peabody, grand-daughter of Hueu and born in 1840 testified that, "There was very little, if any, irrigation at Waimea in the old days as it rained more or less nearly every day and there was an abundance of water. The rainfall in the old days was much heavier than it is now and the forest came much farther down. The cattle have been causing the forest to recede". This was also recognized by the State Supreme Court when Carter appealed the 1915 decision.

> The evidence is to the effect that there were a very few *lois* of taro in the locality in question. It was shown that the Hawaiians habitually raised in their house-lots dry land taro, bananas and vegetables as well as sugar cane which they cultivated for human consumption as well as for food for their animals. And it is a fair inference from the evidence that the ditch system at Waimea was constructed for the purpose of supplying water to the inhabitants for household purposes and for the irrigation, when the natural rainfall was insufficient, of their crops (Hawaiian Reports Vol. 24: 59).

Barry Nakamura (1982) aptly discusses the ancient *`auwai* system in detail and it is briefly summarized here. The main sources of surface water for this *`auwai* system were the streams of Lanimaumau, Waikoloa (also known as Paliilii) and Kohākōhau. According to the testimony, Kohākōhau was known by several names: Wai`auia, Keanu`i`omanō and Wai`aka. Depending on which part of the stream being referred to, this still holds true for local residents today. At the time of the lawsuit, it was determined the main *`auwai* feeding off of Waikoloa Stream were the Lyons, Akona and Lanakila ditches. Off of these three ditches was a network of smaller ditches that watered the lands in the general vicinity of the project area. What was evident from the testimony was that these ditches were very old networks developed by the Hawaiians long ago and that portions of the *`auwai* were used up until the late 19th to very early 20th century.

Portions of this *auwai* system extended through the project area. **Figure 8** is a portion of Wall's 1915 Hawaii Territory Survey map. This map indicates that a branch of Lyons *auwai* passed through the subject parcel. A second ditch extends from the *auwai* to the east, connecting with another branch of Lyons *auwai.* According to testimony from the Carter v. Territory of Hawaii case discussed above, the Lyons ditch once carried 940,000 gallons of water per day. Reverend Lorenzo Lyons (1807-1886) was a missionary and landowner in the Waimea area. Reverend Lyons was responsible for the construction of 14 churches in Hawaii, including Imiola Church in Waimea town and was the author of hundreds of Hawaiian hymns, including "Hawaii Aloha" (The Waimea Gazette 1997).

In the early 20th century, the Parker family acquired Waikoloa and `Ouli in fee-simple, giving them 100,000 acres of grazing land (Wellmon 1970: 175). Today Parker Ranch is the State's second largest private landowner with lands comprising 139,000 acres (Juvik and Juvik 1998:22).

As a major supplier of beef, Parker Ranch played a pivotal role in providing beef and mutton to the Armed Forces in Hawai`i during both WWI (1914) and WWII (1941). During WWII, the military (Army and Marines) basically took over Waimea town. Large areas of ranch lands were turned over to the U.S. Government for a campsite, and a firing range for training the U.S. Marines -- all for the sum of $1.00 (Brundage 1971: 109).

World War II reshaped the farming industry in Waimea and ironically the war was a boon to the farmers -- most of whom were Japanese. Prior to the war, there was only a relatively small market for fresh produce. Once the war started, there was an immediate demand for vegetables to supply the Armed Forces stationed in Waimea and O`ahu. Parker Ranch played a role in this effort by leasing land to the farmers. Each farmer leased twenty acres of

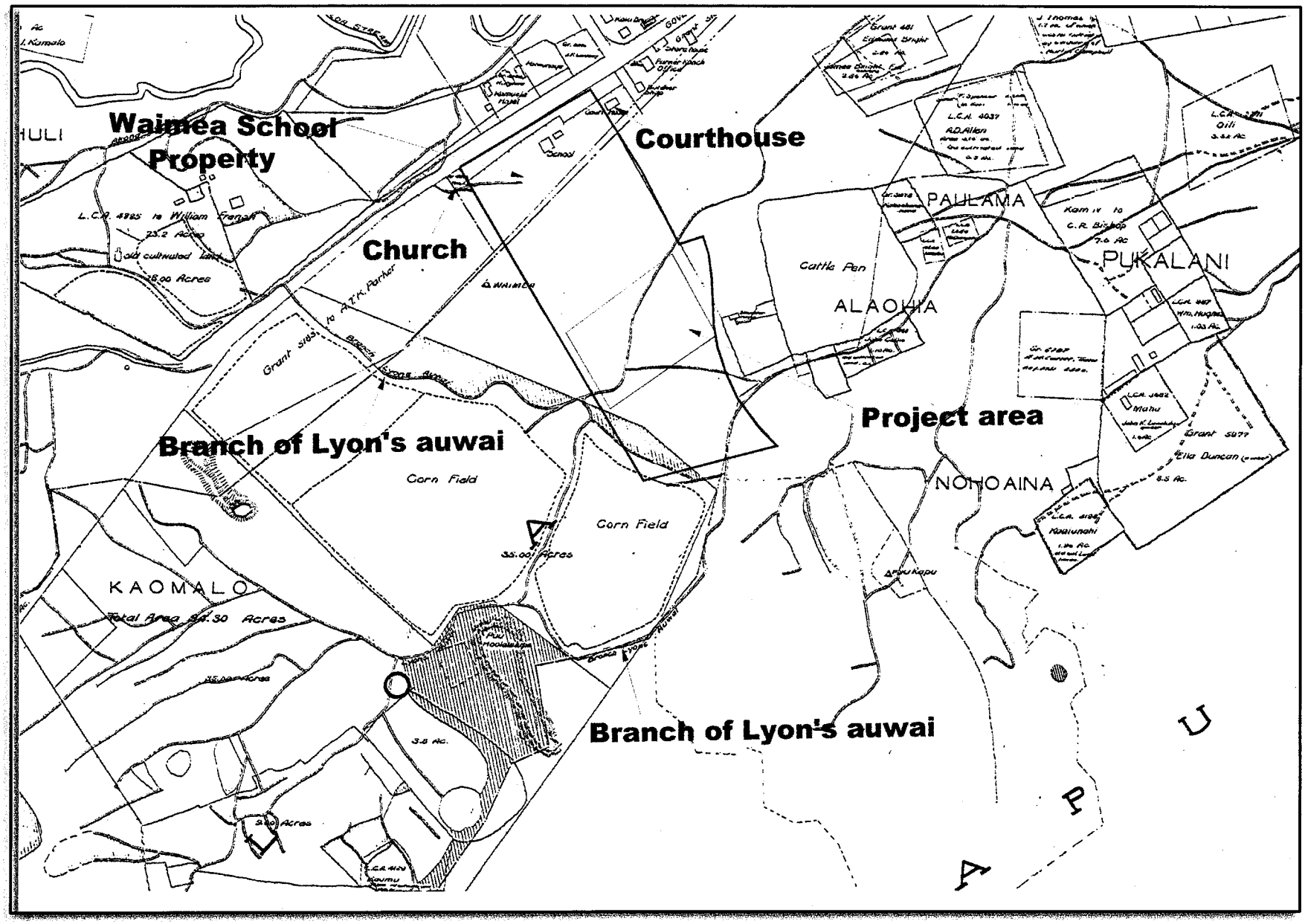


Figure 8. Portion of Wall's 1915 Register Map 2575 Hawaii Territory Survey Map of Waikoloa Nui, Waikoloa Iki, Lalamilo and Puukapu

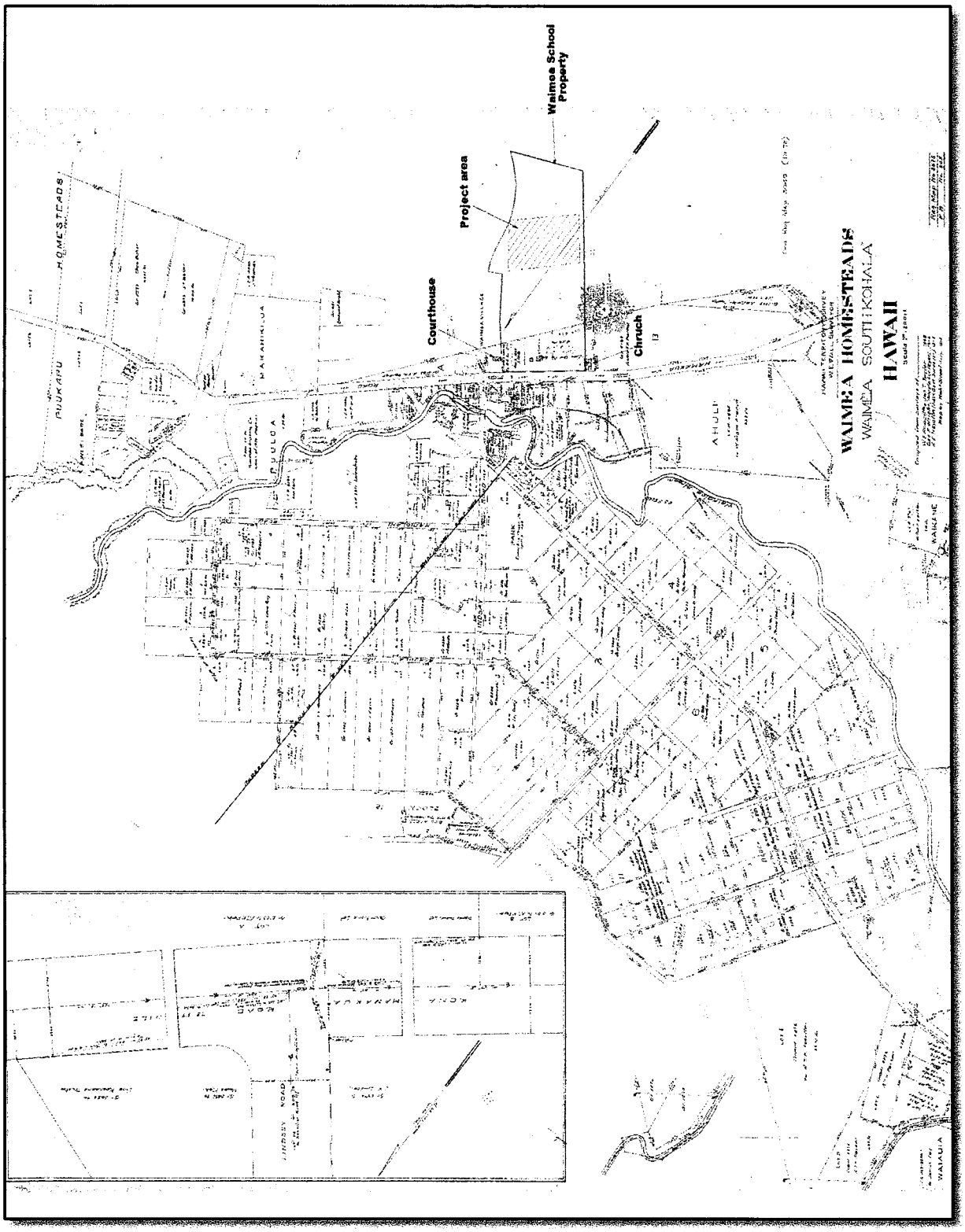


Figure 9. Portion of Wall's 1915 Register Map 2575 Hawaii Territory Survey, Waimea Homesteads Map

lands combined between the Ranch and Waimea homesteaders. The farmers learned to grow new kinds of vegetables they had never grown before -- lettuce, asparagus, celery, and broccoli were especially requested by the servicemen (Nakano 1992:101). The war helped the Waimea farmers make the shift from tenant farmers to commercial farmers. The project area was likely utilized for military use during the war and for ranching purposes.

The Waimea School was constructed in 1915. According to David Thompson of Honolulu Magazine (2004), it opened as a school house containing eight classrooms. However, as depicted in **Figures 8** and **9**, both created in 1915, the school was comprised of two structures. These maps also depict a courthouse to the northeast of the school and a church to the southwest.

Figure 10 is a portion of the 1930 US Geological Survey Kamuela quadrangle. This map depicts that in 1930, the Waimea School was still comprised of only two structures. **Figure 11** is a 1964 aerial photograph of the project area. This photograph indicates the expansion of the school facility and the presence of one structure within the boundaries of the present project.

Today the Waimea school campus occupies 12.5 acres with 22 classroom buildings, a gymnasium, a cafeteria and a library (**Figure 12**). The original school house building (Building N) was slated for destruction in the late 1990's to make room for new classrooms. However, local supporters of the historic school house, including architectural historian and president of the Waimea Preservation Association Tom Quinlan, relocated it a half mile down the road to the Hawaii Preparatory Academy campus where it now serves as an art center (Honolulu Magazine 2004). **Figure 12** indicates that Building N was built in 1942. However, as discussed above, the original school house was constructed in 1915.

Several additional buildings on campus are also historic structures though they are located outside the boundaries of the current project area to the north. These consist of the Building U gym built in 1947 and Buildings CT-2 and CT-4 built in 1949. The remaining structures on the campus were constructed between 1966 and 1999.

Previous Archaeological Research

A search of DLNR-SHPD archaeological report database and other sources identified more than 70 reports that cover Waikoloa, 'Anaeho'omalu, and Kalahuipua'a Ahupua'a. The majority of these previous studies are located along the coast or in the areas within one mile of the shoreline, well seaward of the present project. Several projects have however been conducted in the immediate vicinity of the project area and are more relevant to the current study. Work in the immediate vicinity of the project area includes studies by Clark and Kirch (1983), Thompson and Rosendahl (1991, 1992), Erkelens (1998), Magnuson and Athens (2001), Burtchard and Tomonari-Tuggle (2005) O'Day and Rieth (2007), and Rieth and Filomoehala (2011). The location of these projects is depicted in **Figure 13**.

The project area is located within Field Complex 4 of the Waimea Field System, a large agricultural complex that has been examined by Clark (1981, 1987), Clark and Kirch (1983) and others. The field system was initially defined by examining aerial photographs of the area with limited ground surface examination. This field system is described by Clark as follows:

> The Waimea agricultural system forms a large arc to the north, west and south of the present-day village of Waimea. It begins on the south flank of Kohala Mountain, a short distance below Pu'u La'ela'e, and extends down the slope, onto the Waimea plain west of the village. It then bends to the east, fading out just south of Waimea and west of Kuhio Village (1981:13).

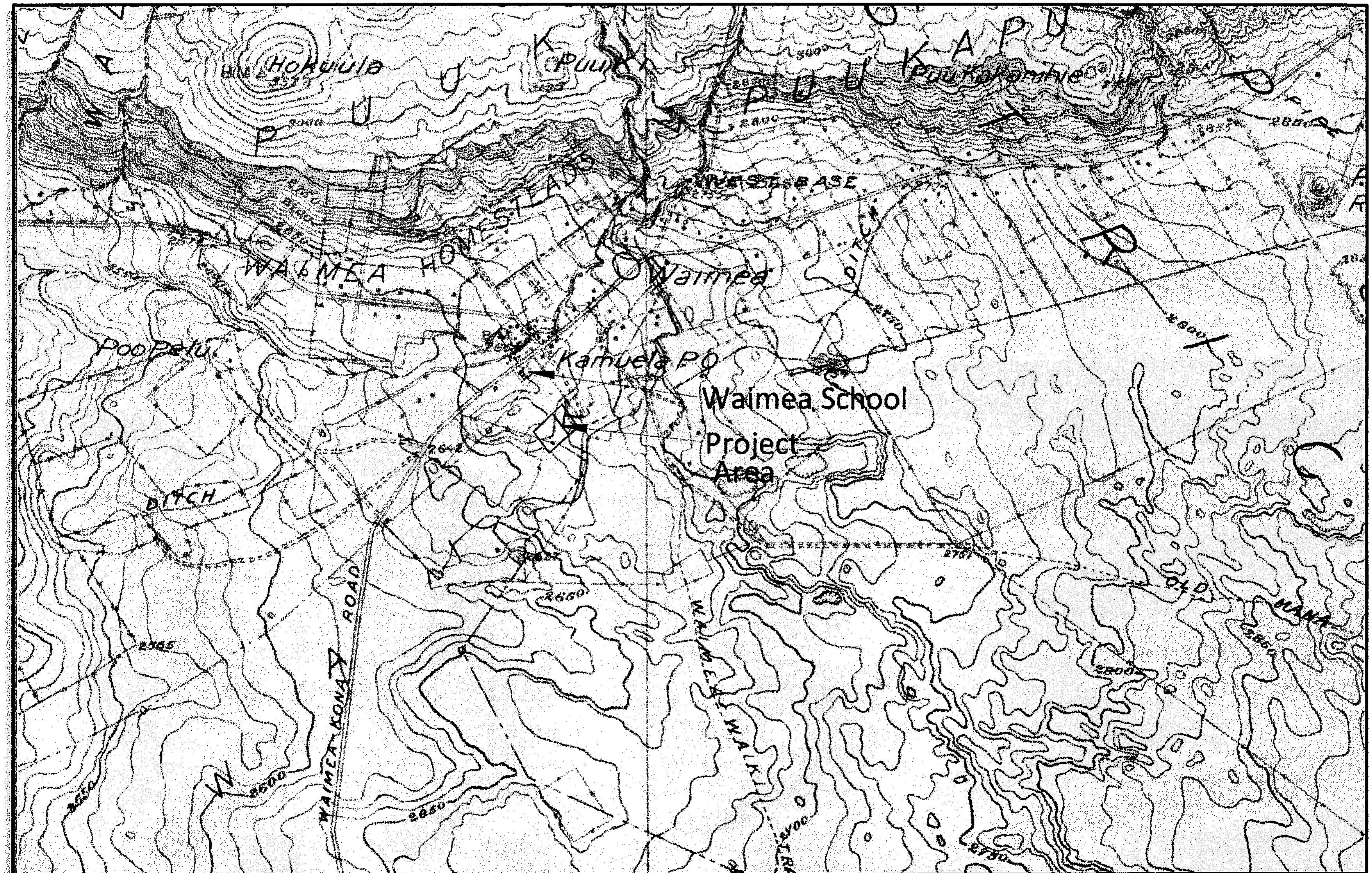


Figure 10. Portion of 1930 US Geological Survey Kamuela quadrangle showing project area

Figure 11. . 1964 aerial photograph of project area vicinity

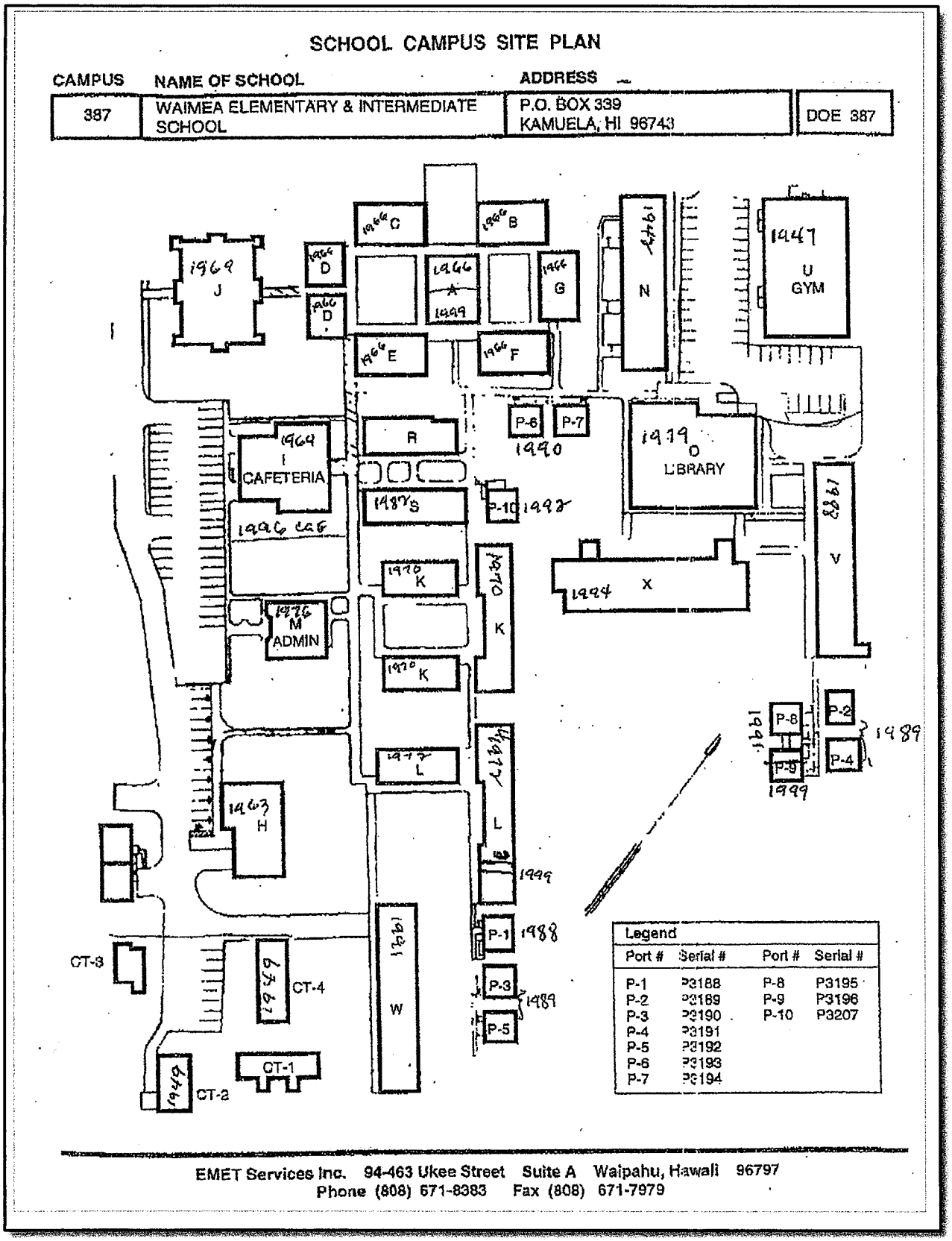


Figure 12. Plan map of Waimea School Facility showing age of buildings

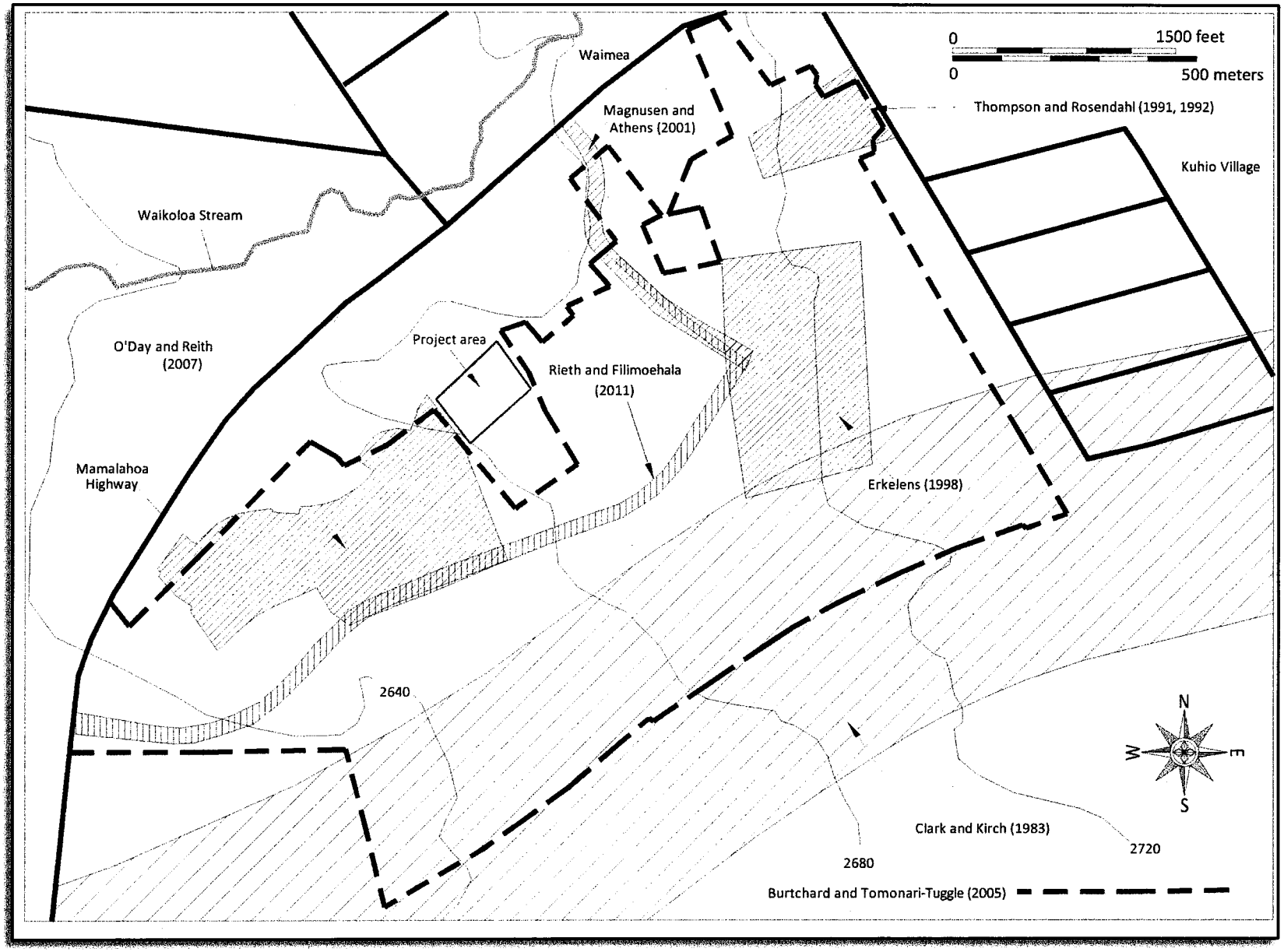


Figure 13. Previous archaeological work in vicinity of project area

Field Complex 4 of the Waimea Field System is situated south of Waimea Village and southwest of Kuhio Village. According to Clark:

> It consists of a set of fields delineated by low soil ridges. The ridges are oriented perpendicular to the prevailing winds and average ca. 30 m apart. As with other complexes, a set of *'auwai* is found in association with the fields, although in this case the *'auwai* may not be as integral a constituent of the agricultural complex. Also in this zone are residential structures and numerous stone walls. This is the smallest of the field complexes and the least complex in development (1981:14).

Clark and Kirch (1983) conducted a survey of a 2,000 ft wide corridor that extended from Waimea to Kawaihae, located approximately 450 m south of the project area. This survey identified more than 4,500 features, 238 of which are within Waikoloa Ahupua'a (1983:F-7). The 238 features consists of shelters (107), mounds (50), walls (23), possible burials (17), terraces (17), possible trails (15), fire-pits (5), animal enclosure (1), platform (1), roads (1) and rock-filled depression 91). The majority of these sites are located east of the project area, seaward of the Mamalahoa Highway.

The following is summarized from Rieth and Filomoehala (2011). One of the most comprehensive investigations of Field Complex 4 was undertaken by Burtchard and Tomonari-Tuggle (2005) in conjunction with data recovery within the Waimea Town Center. The southern portion of the Waimea School property, including the present project area is bordered by the Burtchard and Tomonari-Tuggle (2005) study area. The data recovery project examined 15 previously identified sites and documented 27 new sites primarily associated with prehistoric and historic habitation and agricultural activity. This work resulted in the refinement of the chronology for the development of the field complex, with initial use occurring as early as the 15th century and consisting of small non-irrigated agricultural plots with associated temporary habitations. The irrigation system was late 18th century addition, created in response to the demands of Kamehameha's military pursuits. The irrigation system was expanded during the 19th century in association with the expansion of commercial agriculture in the area.

Several other projects have been conducted within the boundaries of the Burtchard and Tomonari-Tuggle (2005) study area. Thompson and Rosendahl conducted archaeological inventory surveys of the North Hawaii Community hospital (1991) and the Waimea Elderly Housing project (1992), located approximately 650 m northeast of the project area. A portion of a subsidiary channel of one of Lyons' *'auwai* was identified and was bisected. A radiocarbon sample was obtained during this excavation and submitted for analysis with the hopes of determining the age of the ditch; however the date was modern and was likely associated with a fill deposit.

Erkelens (1998) conducted a survey of a series of historic *kuleana* lots within the Waimea Town Center area, approximately 420 m east of the project area. This study included an historic review and subsurface testing within the kuleana lots (Site 8812) and within structures associated with the Parker Ranch.

Magnuson and Athens (2001) undertook a survey of the curvilinear Pukalani extension corridor located approximately 280 m northeast of the project area. Rieth and Filomoehala (2011) conducted archaeological monitoring and emergency data recovery of the Parker Ranch Connector Road, a portion of which extends into the Pukalani extension corridor. This project documented 126 features and 311 surface artifacts. The majority of the features consist of subsurface hearths associated with prehistoric temporary habitations, with the remainder comprised predominately of the remnants of the World War II Camp Tarawa and 19th century habitations sites.

O'Day and Rieth (2007) conducted archaeological monitoring with the Lualaʻi Subdivision, located adjacent to the project area to the southwest. This area contained a mid-19th century residence (Site 21873) that was previously examined by Burtchard and Tomonari-Tuggle (2005). O'Day and Rieth (2007) conducted data recovery at this site, revealed an historic cemetery, likely associated with the residence. A prehistoric cultural deposit was also

identified during the data recovery, containing multiple subsurface cooking features. Charcoal samples from an *imu* and a hearth were submitted for radiometric age determination. The *imu* produced a broad age range extending between the late 17th century to the early 20th century. The charcoal from the hearth yielded an age range from the 14th to early 15th century.

Clark (1987) proposed a settlement pattern model for the Kawaihae-Waimea region that is applicable to Waikoloa. The model consists of four zones as follows:

> **Coastal Zone -** Extends from the coast to between 200 m and 400 m inland with most sites below 30-45 m (98-148 ft) elevation. The Coastal Zone is subdivided into shoreline and inland sub-zones. Subsistence activity had a marine exploitation emphasis including fishing, collecting, and salt making. Agricultural crops included coconut, sweet potato, gourds, and other medicinal, utilitarian, and food plants. Archaeological features include "residential structures, community-oriented structures, burial monuments, agricultural features, military features [recent], and miscellaneous" (1987:247). Habitation sites include single use sites, extended and recurrent occupations, and permanently occupied sites. Habitation features include small walled shelters, caves, overhangs, terraces, platforms, and enclosures. The more intensively occupied habitation sites are clustered in neighborhoods sometimes larger wards.
>
> **Intermediate Zone -** Extends from the Coastal Zone to between 7.3 and 9.7 km inland at approximately 585 m (1,919 ft) elevation. Subsistence activity limited to small scale seasonal cultivation of alluvial flats near drainages and bird catching. Archaeological features include short-tern occupation sites including midden scatters, fireplaces, small walled shelters, caves, and overhangs, which are typically situated near drainages.
>
> ***Kula* Zone** -Extends from the Intermediate Zone to between 7.3 and 9.7 km inland. It ranges in elevation from 585 m to 830 m (1,919-2,722 ft) in elevation, with small sections extending to as much as 975 m (3,198 ft) elevation. Subsistence activity is dominated by agriculture. The zone is divided into two primary sub-zones based on the nature of cultivation. Sub-zone 1 is defined by the presence of formal fields, mound complexes, small terraces, modified outcrops, and animal and garden enclosures. Sub-zone 2 is characterized by the absence of formal fields and limited to planting swales, clusters of mounds, and modified outcrops. Irrigation ditches occur in both sub-zones. Crops included sweet potatoes, dry-land taro, gourds, and *wauke*. Habitation sites include single use sites, extended and recurrent occupations, and permanently occupied sites. Habitation features include small walled shelters, caves, overhangs, terraces, platforms, and enclosures. The more intensively occupied habitation sites are clustered in neighborhoods sometimes larger wards. Burial features are also present.
>
> **Wilderness Zone** -Zone extends inland from the *Kula* Zone to the mountain tops. The zone is divided into two sub-zones. Sub-zone 1 consists of areas that were exploited for a variety of resources including, wood, bark, birds, wild plants foods, fine-grained basalt for tool manufacture. Sub-zone 2 consists of the highest elevation areas that were not economically exploited and largely untouched except for some religious activity.

Consultation

On May 29, 2013, an ethnographic interview was conducted with long-time Waimea resident, Mr. Buddy Toyama by Haun & Associates project supervisor Shawn Fackler. Mr. Toyama is 63 years old and was born on Oahu but has been living in the Waimea area for the past 35 years. He says he can remember when the highway was only two

lanes and the only structures near the current project area were the older buildings of the school and the old firehouse on the corner.

Mr. Toyama also stated that, as far as he could remember, the project area was used by the Parker Ranch and Hawaiian Homes as grazing areas. He said that before ranching, "back in the old days" this area was all sandalwood forest. After all of the trees were cut down, people used it for ranching when cattle were introduced. Lastly, he said that grazing areas in the hills above Waimea has greatly increased since he arrived 35 years ago.

Additional consultation was conducted by Haun & Associates Cultural Specialist Solomon Kailihiwa on January 28, 2014. Mr. Kailihiwa contacted Brandi Beaudet of Parker Ranch who recommended that Charlie Kimura, a former livestock manager for Parker Ranch, may be an individual who is knowledgeable of the project area and its vicinity. Mr. Kimura was contacted and though he admitted that he did not have extensive knowledge of traditional or cultural activities for this particular area, "old timers" in the past told him that a burial and a cave were located behind the school. He believes that previous construction activities in the area may have destroyed the burial and the cave if they were located behind the school as the area is full of buildings now. Charlie recommended that we contact Eva Kealamakia, a long-time resident of Waimea, who is knowledgeable about the area. Attempts to contact Ms. Kealamakia were unsuccessful.

PROJECT EXPECTATIONS

Based on historical documentary evidence and previous archaeological work, the project area could contain agricultural features including irrigation ditches, formal fields, mounds, swales, modified outcrops, and small terraces. It is also possible that habitation, sites, burials, and small ritual features may be present. Habitation sites should consist of temporary and permanent habitations (walled shelters, platforms, terraces and enclosures). Prehistoric sites would be expected to date no earlier than the 1200-1300s with most dating to the 1600-1800s. Historic sites, except WWII military training features, primarily should be limited to ranching and farming features with scattered habitations. Ranch-related features should be represented by roads, walls, and pens. The military training features should be represented by small fortifications such as low C-shaped enclosures and alignments.

FINDINGS

The archaeological inventory survey identified two discontinuous sections of possible ditch (**Figure 14**). These features are curvilinear depressions located in the southern portion of the project area. The western ditch enters the project area along the western boundary and extends in a roughly easterly direction for 51.0 m where it terminates near the western edge of the leach field (**Figure 15**). The eastern ditch is located 42.0 m to the east of the western ditch. This feature extends in a northeasterly direction for 17.6 m, then angles to the southeast for 11.6 m where it exits the boundaries of the project area (**Figure 16**). The ditch extends outside the parcel in this direction for at least an additional 35.0 m. Both of these sections range in width from 2.0 to 3.0 m and in depth from 0.4 to 0.75 m. No cultural remains are present.

As discussed in the Historical Documentary Research section, portions of several *auwai* once extended through the project area based on Wall's 1915 map (see **Figure 8**). The path of these *auwai* has been superimposed onto the **Figure 14** project area map. One ditch, labeled as a "Branch of Lyons auwai" enters the western side of the project area and turns to the north, exiting the parcel at the northeast corner. The second ditch is unlabeled but connects the first "Branch of Lyons auwai" with a second branch, located outside the project area to the east.

The possible *auwai* identified during the present project were not assigned a new SIHP designation because it is uncertain if they are in fact irrigation ditches or are simply seasonal drainages. As discussed above, both features are curvilinear in shape and are more characteristic of meandering streams, rather than formal ditches, which are typically very linear structures with broad, sweeping turns. It is possible that the western feature may correspond to the connector ditch that extends between the two "Branches of Lyons' auwai" based on their locations. However, the eastern feature is located more than 32 m north of the reported located of the ditch on Wall's 1915 map and likely does not represent a remnant of this ditch.

Due to the ambiguous nature of these features, they are referenced in this report as elements of the Site 50-10-06-9179 complex, assigned by Clark (1981). According to Burtchard and Tomonari-Tuggle (2005), cited in Rieth and Filomoehala (2011:27):

> Site 9179 applies to the entire dendritic *'auwai* system crossing this portion of Waimea. Various sections of the site have been designated by locality (e.g., Locality M). In most instances, extant components of the site visible on the surface are broadly curving linear depressions. Across large areas, however, no irrigation channels are visible. Excavations through *'auwai* revealed profiles of distinctly defined, straight sided channels at some locations (e.g., Locality B), although a more shallow, basin-shaped profile was more common (e.g., Localities M and N). As noted previously, this irrigation system was likely created and modified during an approximately 100 year period from the mid-1800s to mid-1900s.

The survey fieldwork also included mechanical excavation of five backhoe trenches (BTs 1 through BT-5). These excavations are summarized in **Table 3** and their locations are presented in **Figure 14.** The trenches were all located within the footprint of the proposed school building, or within the limits of the proposed grading area. The trenches range in length from 4.85 to 5.3 m and comprise a total of 25.6 m of excavated trench. The trenches averaged 1.0 m in width and ranged in depth from 1.0 to 1.34m and all were excavated into culturally sterile soil. Profiles and photographs of the five backhoe trenches are presented in **Figures 17-21**.

The trench excavations revealed nearly identical soil stratigraphy. The surface layer throughout the project area (Level I) is comprised of a dark yellowish brown (10YR 3/4) very fine compact sandy loam. This deposit ranged in depth below ground surface from 0.28 to 0.33 m and varied in thickness from 0.11 to 0.33 m. No cultural remains were present in the Layer I soil.

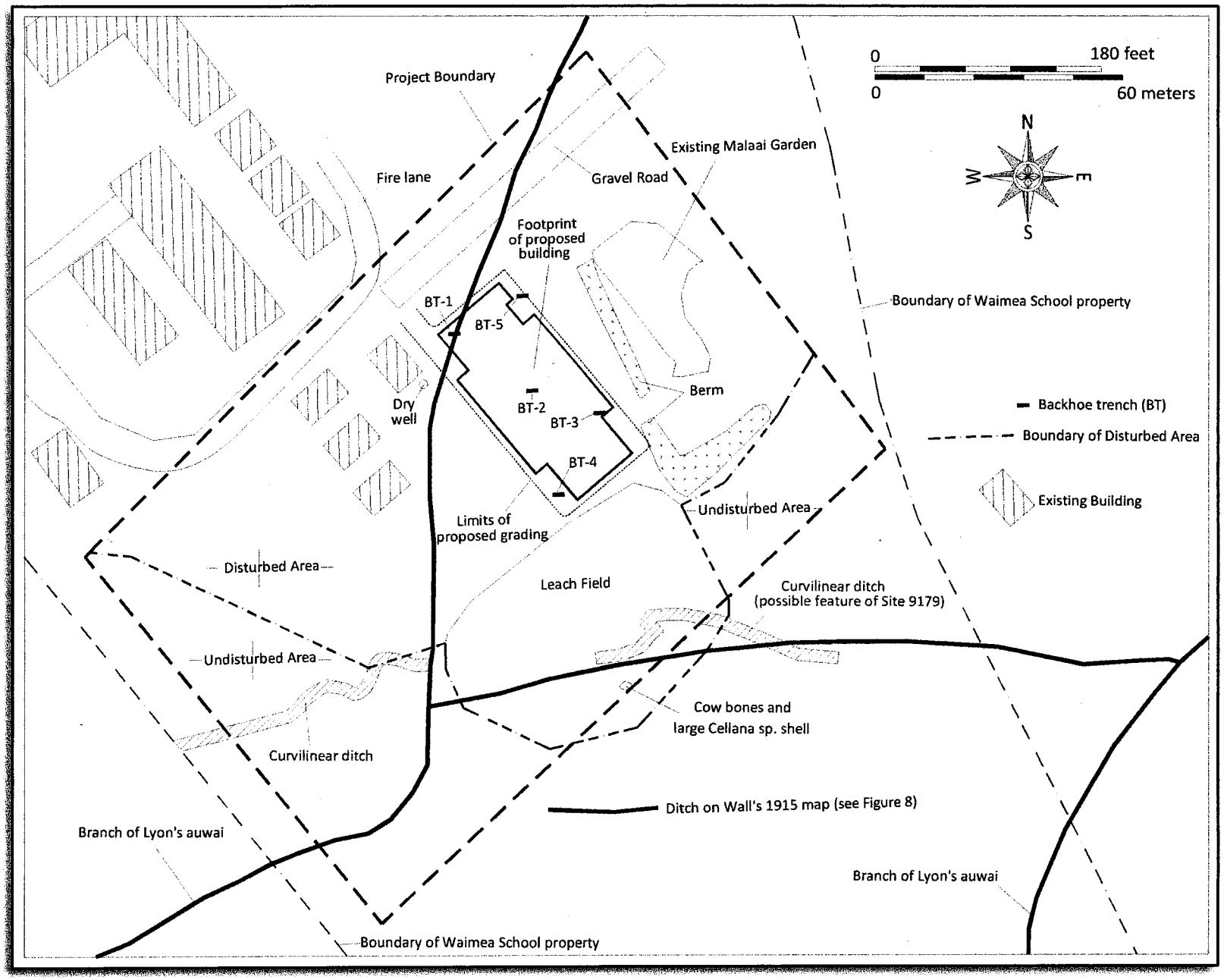
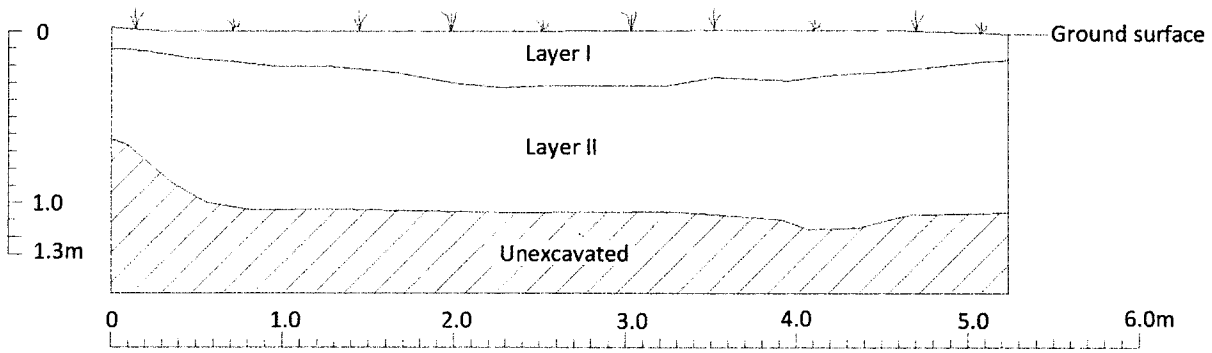


Figure 14. Site and backhoe trench location map

Figure 15. Photograph of western ditch, view to southwest

Figure 16. Photograph of eastern ditch

Backhoe Trench 1 - South wall profile



Layer I - Dark yellowish brown (10YR 3/4) very fine moderately compact sandy loam; No cultural remains

Layer II - Dark yellowish brown (10YR 4/4) very fine compact silty loam with 5% pebble and cobble inclusions; No cultural remains

Backhoe Trench 1 - View to south

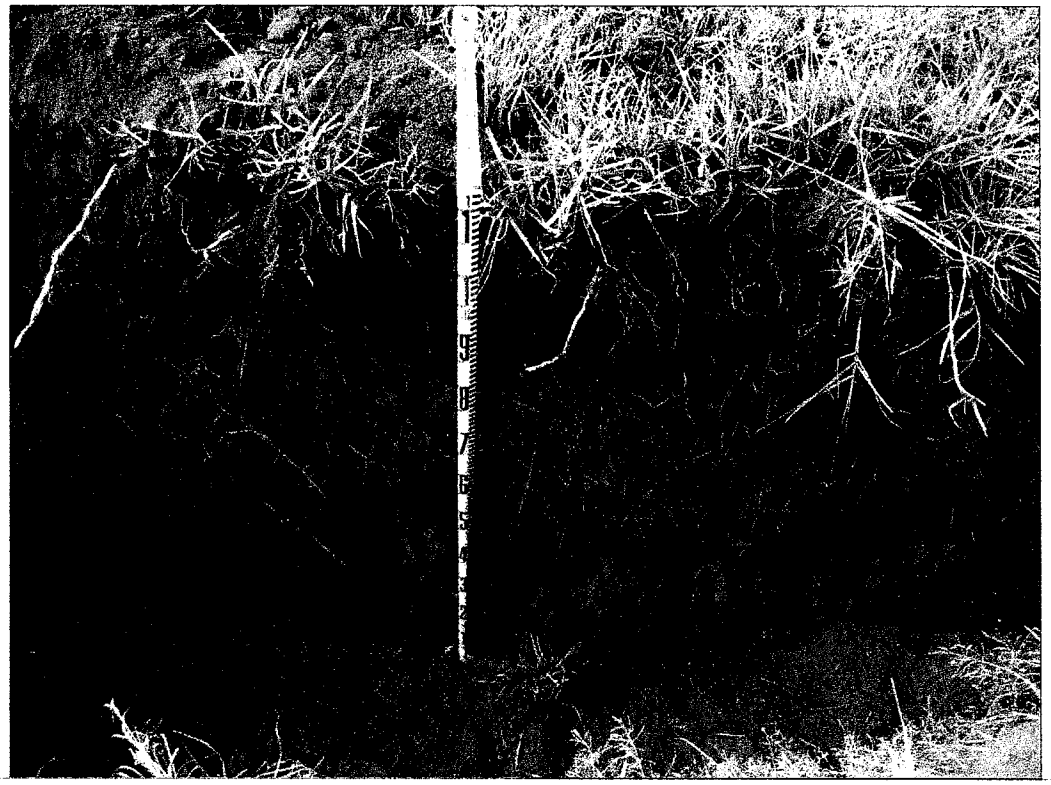
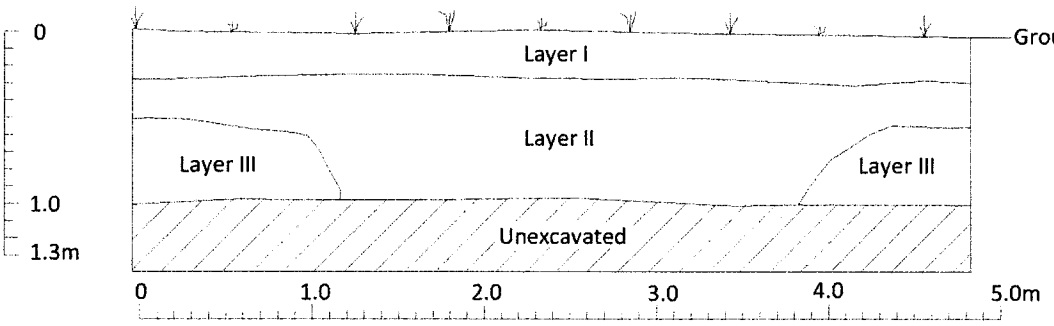


Figure 17. Profile and photograph of BT-1

Backhoe Trench 2 - North wall profile



Layer I - Dark yellowish brown (10YR 3/4) very fine moderately compact sandy loam; No cultural remains

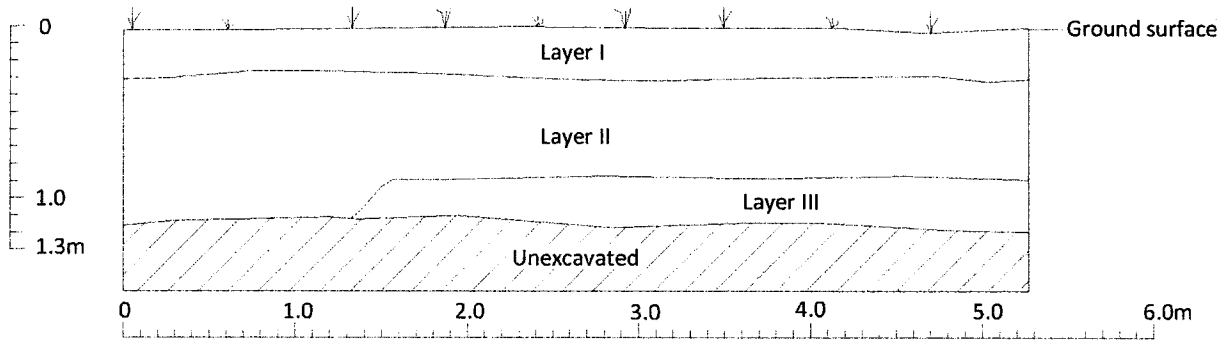
Layer II - Dark yellowish brown (10YR 4/4) very fine compact silty loam; No cultural remains

Layer III - Dark yellowish brown (10YR 4/4) very fine compact silty loam with 30% pebble and cobble inclusions; No cultural remains

Backhoe Trench 2 - View to north

Figure 18. Profile and photograph of BT-2

Backhoe Trench 3 - North wall profile



Layer I - Dark yellowish brown (10YR 3/4) very fine moderately compact sandy loam; No cultural remains

Layer II - Dark yellowish brown (10YR 4/4) very fine compact silty loam; No cultural remains

Layer II - Dark yellowish brown (10YR 4/4) very fine compact silty loam with 10% cobble inclusions; No cultural remains

Backhoe Trench 3 - View to north

Figure 19. Profile and photograph of BT-3

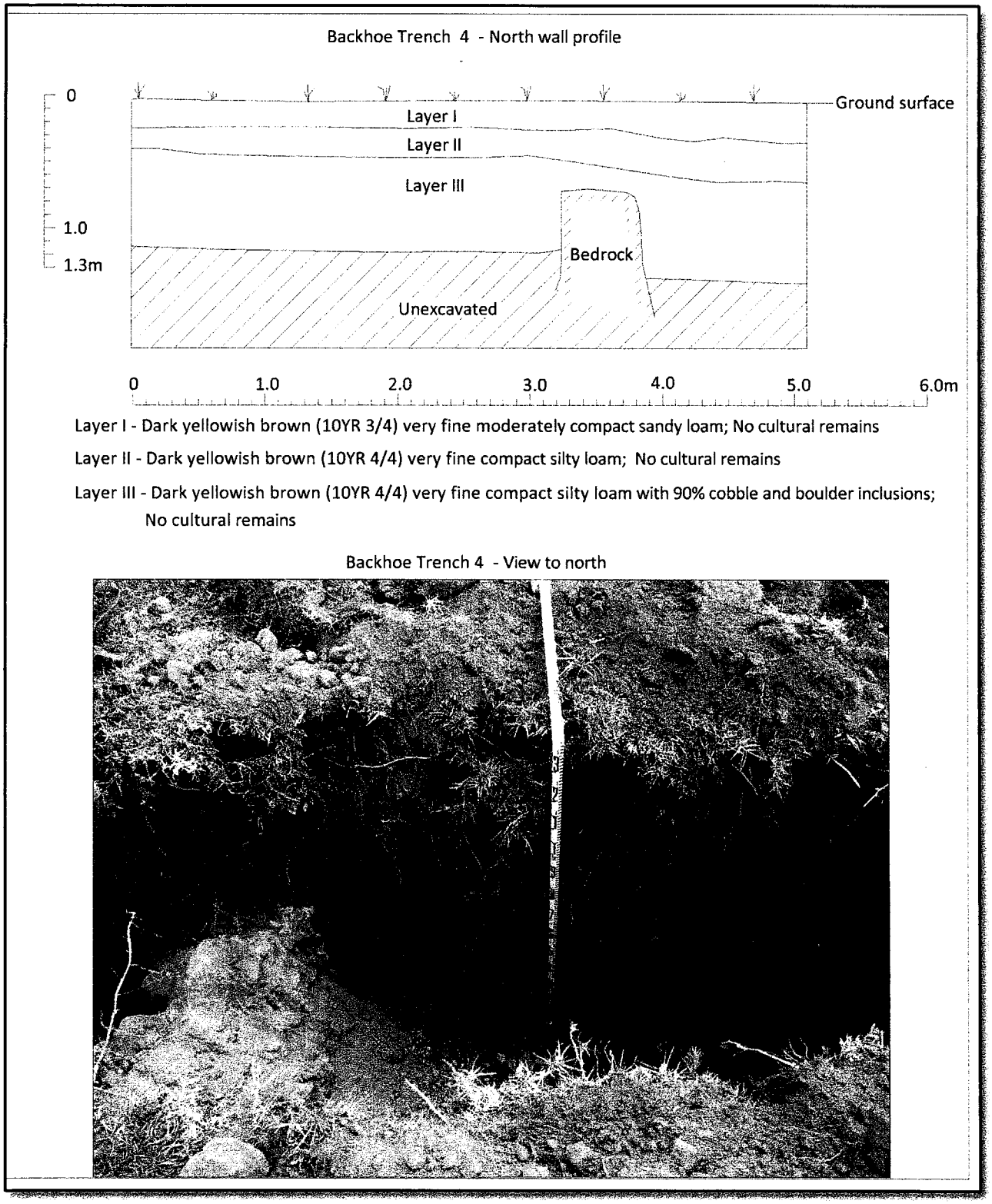
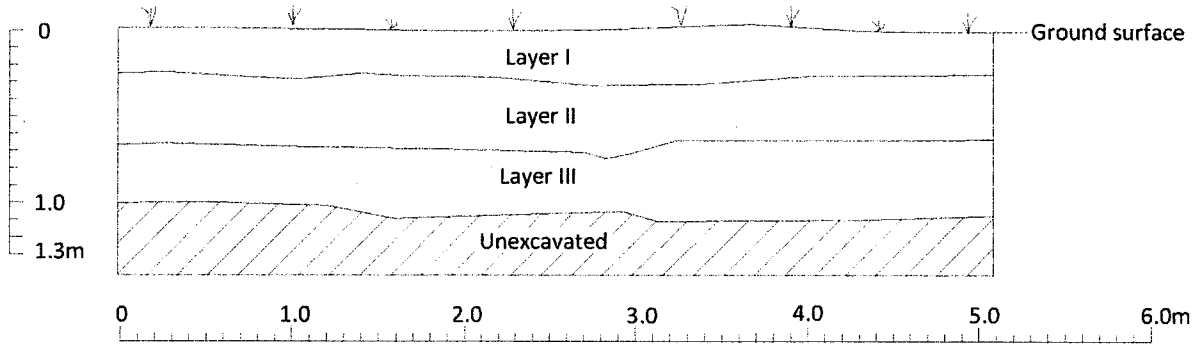


Figure 20. Profile and photograph of BT-4

Backhoe Trench 5 - North wall profile



Layer I - Dark yellowish brown (10YR 3/4) very fine moderately compact sandy loam; No cultural remains

Layer II - Dark yellowish brown (10YR 4/4) very fine compact silty loam; No cultural remains

Layer III - Dark yellowish brown (10YR 4/4) very fine compact silty loam with 40% cobble and boulder inclusions; No cultural remains

Backhoe Trench 5 - View to north

Figure 21. Profile and photograph of BT-4

Table 3. Backhoe trench stratigraphy

Backhoe Trench No.	Length (m)	Layer	Depth (m below surface)	Thickness (m)	Soil color	Munsell color	Soil texture	Inclusions	Cultural remains
1	5.25	I	0-0.33	0.11-0.33	Dark yellowish brown	10YR 3/4	Very fine moderately compact sandy loam	-	-
		II	0.11-0.16	0.53-0.9	Dark yellowish brown	10YR 4/4	Very fine compact silty loam	5% pebbles and cobbles	-
2	4.85	I	0-0.28	0.23-0.28	Dark yellowish brown	10YR 3/4	Very fine moderately compact sandy loam		-
		II	0.23-0.99	0.23-0.72	Dark yellowish brown	10YR 4/4	Very fine compact silty loam		-
		III	0.51-1.0	0.38-0.44	Dark yellowish brown	10YR 4/4	Very fine compact silty loam	30% pebbles and cobbles	-
3	5.3	I	0-0.29	0.23-0.29	Dark yellowish brown	10YR 3/4	Very fine moderately compact sandy loam		-
		II	0.23-1.13	0.56-0.86	Dark yellowish brown	10YR 4/4	Very fine compact silty loam		-
		III	0.88-1.17	0.21-0.3	Dark yellowish brown	10YR 4/4	Very fine compact silty loam	10% cobbles	-
4	5.1	I	0-0.3	0.18-0.3	Dark yellowish brown	10YR 3/4	Very fine moderately compact sandy loam		-
		II	0.19-0.61	0.16-0.34	Dark yellowish brown	10YR 4/4	Very fine compact silty loam		-
		III	0.38-1.34	0.19-0.77	Dark yellowish brown	10YR 4/4	Very fine compact silty loam	90% cobbles and boulders	-
5	5.1	I	0-0.32	0.24-0.33	Dark yellowish brown	10YR 3/4	Very fine moderately compact sandy loam		-
		II	0.25-0.74	0.33-0.42	Dark yellowish brown	10YR 4/4	Very fine compact silty loam		-
		III	0.66-1.23	0.3-0.47	Dark yellowish brown	10YR 4/4	Very fine compact silty loam	40% cobbles and boulders	-

The surface layer was underlain a deposit of dark yellowish brown (10YR 4/4) very fine compact silty loam in four of the five BTs (Layer II in BTs-2-5). This deposit ranged in depth below surface from 0.19 to 1.13 m and in thickness from 0.16 to 0.86 m. No cultural remains were present in Layer II. The lower layer in all five trenches consists of a dark yellowish brown (10YR 4/4) very fine compact silty loam with from 5 to 90 % stone inclusions. No cultural remains are present. This deposit is Layer II BT-1 and is Layer III in BTs 2-5.

BT-1 was located in the path of the "Branch of Lyons auwai" discussed above. However, no evidence of the ditch was present in the backhoe trench. This is due either to the previous disturbance within the project area that may have obliterated all remnants of the ditch, or its inaccurate location on the 1915 Wall map.

CONCLUSION

Discussion

The project area lies within Field Complex 4 of the Waimea Field System, which according to Clark is the smallest and least developed of the field complexes. This complex is typified by agricultural fields delineated by low soil ridges and auwai, along with residential structures and stone walls (1981:14). These agricultural fields were used for cultivation of crops including sweet potatoes, dry-land taro, gourds, and *wauke* (Newman 1970; Clark and Kirch 1983, Clark 1981, 1987).

Historic documentary research indicates that several irrigation ditches once extended through the project area. These consisted of irrigation features constructed by the Reverend Lorenzo Lyons in the 1800s that diverted nearly a million gallons of water per day from Waikoloa Stream to nearby agricultural plots. The survey identified a possible section of this ditch, although as it can be correlated with certainty. The feature is interpreted as an element of the overall *'auwai* system that once extended through this area (Site 9179). Testimony from the Carter vs. Territory of Hawai`i water rights case, indicates that the ditches in the area were very old networks developed by the Hawaiians long ago that were historically reworked and that were used up until the late 19th to very early 20th century.

Significance Assessments

Pursuant to DLNR (2003) Chapter 275-6 (d), the initial significance assessments provided herein are not final until concurrence from the DLNR has been obtained. Sites documented during an inventory survey are assessed for significance based on the criteria outlined in the Rules Governing Procedures for Historic Preservation Review (DLNR 2003, Chapter 275). According to these rules, a site must possess integrity of location, design, setting, materials, workmanship, feeling, and association and shall meet one or more of the following criteria:

1. Criterion "a". Be associated with events that have made an important contribution to the broad patterns of our history;
2. Criterion "b". Be associated with the lives of persons important in our past;
3. Criterion "c". Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;
4. Criterion "d". Have yielded, or is likely to yield, information important for research on prehistory or history; and
5. Criterion "e". Have an important traditional cultural value to the native Hawaiian people or to another ethnic group of the state due to associations with traditional cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts--these associations being important to the group's history and cultural identity.

Based on the above criteria, the possible *auwai* identified in the project area is assessed as significant under Criterion *"d"*. They have yielded information important for understanding prehistoric to historic land use in project area.

Treatments Recommendations

The mapping, written descriptions and photography of the possible *auwai* adequately document the site and no further work or preservation is recommended. The planned development within the property will have no effect on the possible *auwai*.

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