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GOVERNOR
STATE OF HAWAII



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STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

November 21, 2000

To: The Honorable Bruce S. Anderson, Director
Department of Health

Attention: Genevieve Salmonson, Director
Office of Environmental Quality Control

From: *[Signature]*
Raynard C. Soon, Chairman
Hawaiian Homes Commission

Subject: Finding of No Significant Impact (FONSI) for the
Kamehameha Schools Waimea Preschool, Waimea, Hawaii
Tax Map Key No. (3) 6-4-01:59 (por.)

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

NOV 22 12:31

11-21-00

The Department of Hawaiian Home Lands has reviewed the comments received during the 30-day public comment period on the draft environmental assessment for the above-referenced preschool project.

At its regular monthly meeting held November 21, 2000, the Hawaiian Homes Commission granted the determination of Finding of No Significant Impact (FONSI) for the Final Environmental Assessment, dated November 2000. Please publish this notice in the December 8, 2000, OEQC Environmental Notice.

A completed OEQC Publication Form and four copies of the Final Environmental Assessment report will be delivered to your office. Should you have any questions, please call me at 586-3801, or Linda Chinn, Acting Land Management Branch Manager, at 587-6432.

Enc.

c: PBR Hawaii

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2000-12-08-HI-FA-

(KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL)



FINAL ENVIRONMENTAL ASSESSMENT

Prepared for:



Kamehameha Schools

and

State of Hawaii
Department of Hawaiian Home Lands

Prepared by:
PBR Hawaii
November 2000

KAMEHAMEHA SCHOOLS

WAIMEA PRESCHOOL

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KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
Final Environmental Assessment

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1.0

Introduction

1.0 INTRODUCTION

This environmental assessment is prepared in accordance with Chapter 343, *Hawai'i Revised Statutes*, for the use of lands owned by the State of Hawai'i Department of Hawaiian Home Lands (DHHL) for the development of the new Kamehameha Schools Waimea Preschool.

1.1 PROJECT SUMMARY

- Project Name:** Kamehameha Schools Waimea Preschool
- Applicant:** Kamehameha Schools (KS) and
State of Hawai'i, Department of Hawaiian Home Lands (DHHL)
- Landowner:** State of Hawai'i, Department of Hawaiian Home Lands (DHHL)
- Location:** Waimea, District of South Kohala, County of Hawai'i
- Tax Map Key:** 6-4-01:59 (Portion)
- Existing Use:** The two-acre project cite consists of vacant land. Other uses on the site include Kūhiō Hale which houses the DHHL West Hawai'i office and a community center, Pūnana Leo O Waimea Hawaiian language immersion preschool, and other ancillary uses.
- Proposed Use/
Project Area:** Preschool
Two (2) acres (of the 10-acre DHHL property)
- Land Use
Designations:** ·State Land Use: Agricultural
·General Plan: Agriculture
·Zoning: A - 40a
- SMA:** The subject property is not in the SMA
- Action Requested:** Compliance with Chapter 343, *Revised Statutes* and Hawai'i Administrative Rules, Title 11, DOH, Chapter 200
- Approving Agency:** Department of Hawaiian Home Lands

1.2 SITE LOCATION

The two (2) acre parcel is located at Pu'ukapu, Waimea (also known as Kamuela) in South Kohala, Hawai'i, about ½mile east of Waimea town center. The proposed Waimea Preschool (Preschool) will be on Department of Hawaiian Home Lands (DHHL) property which is identified as Tax Map Key (TMK) 6-4-01:59 (Figures 1, 2, and 3). The Preschool site map is shown in Figures 4 and 4A. The Preschool will occupy two acres of the 10 acre DHHL parcel.

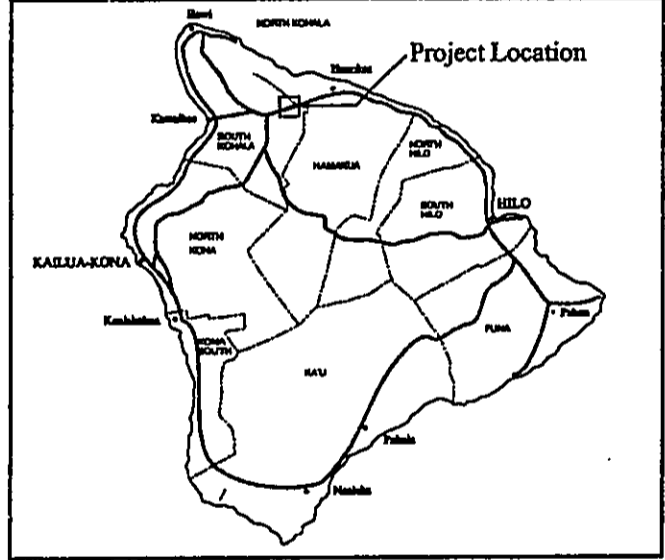
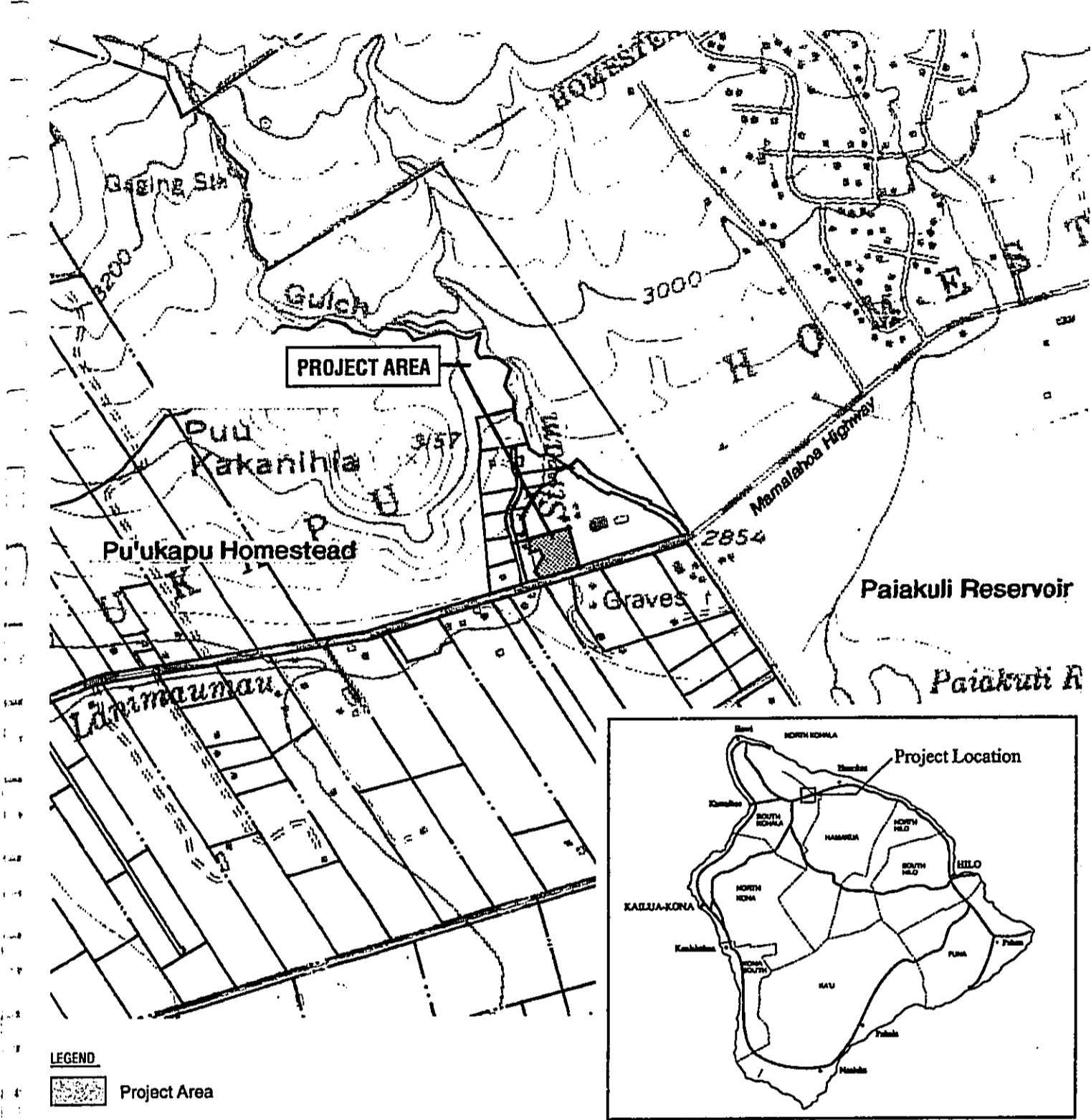
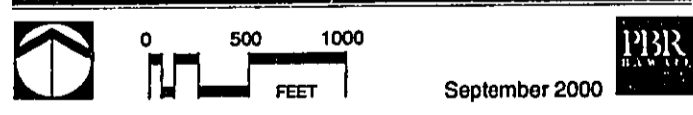
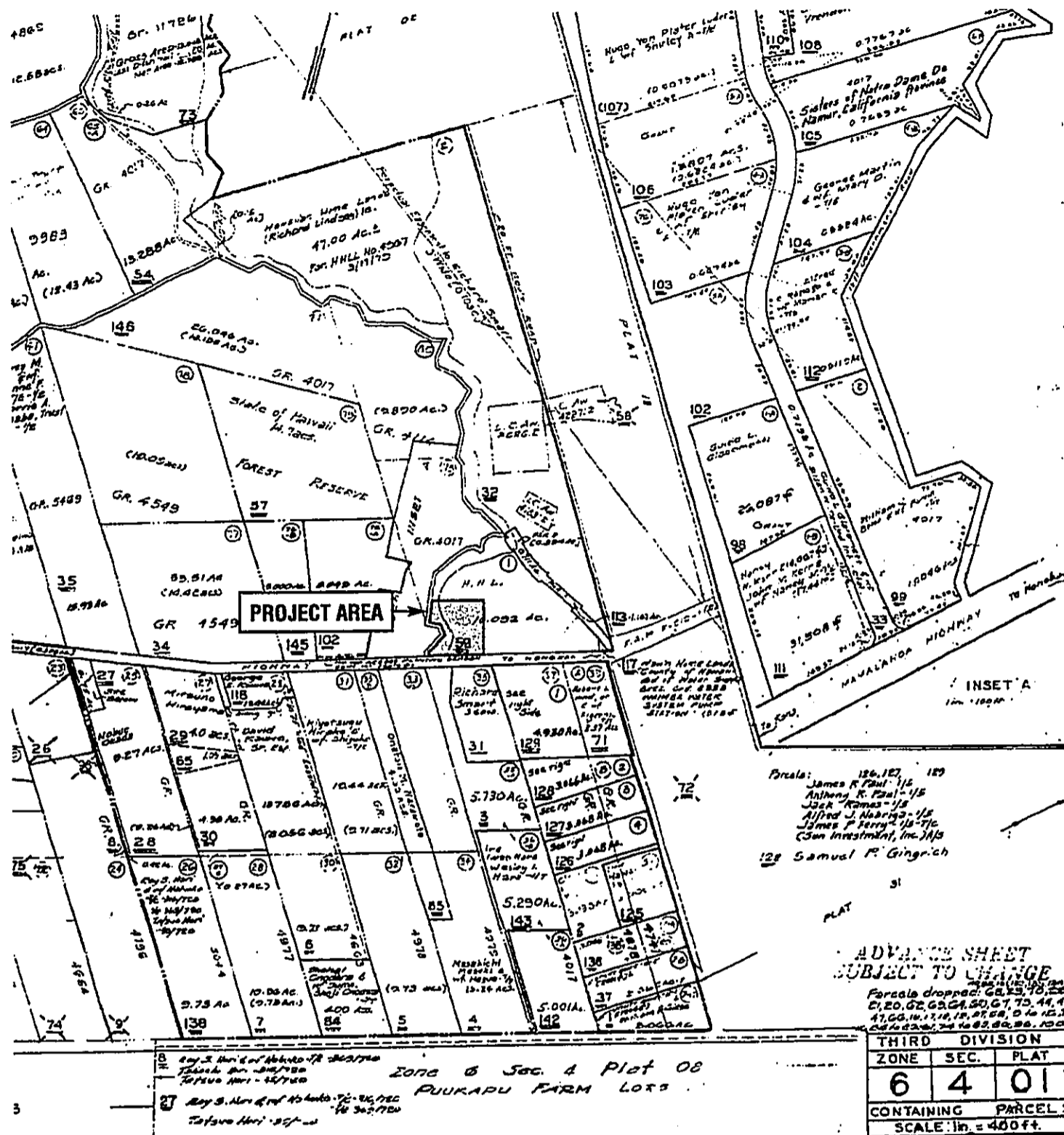


FIGURE 1
 Location Map
 KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL



Source: USGS Topographical Map

September 2000



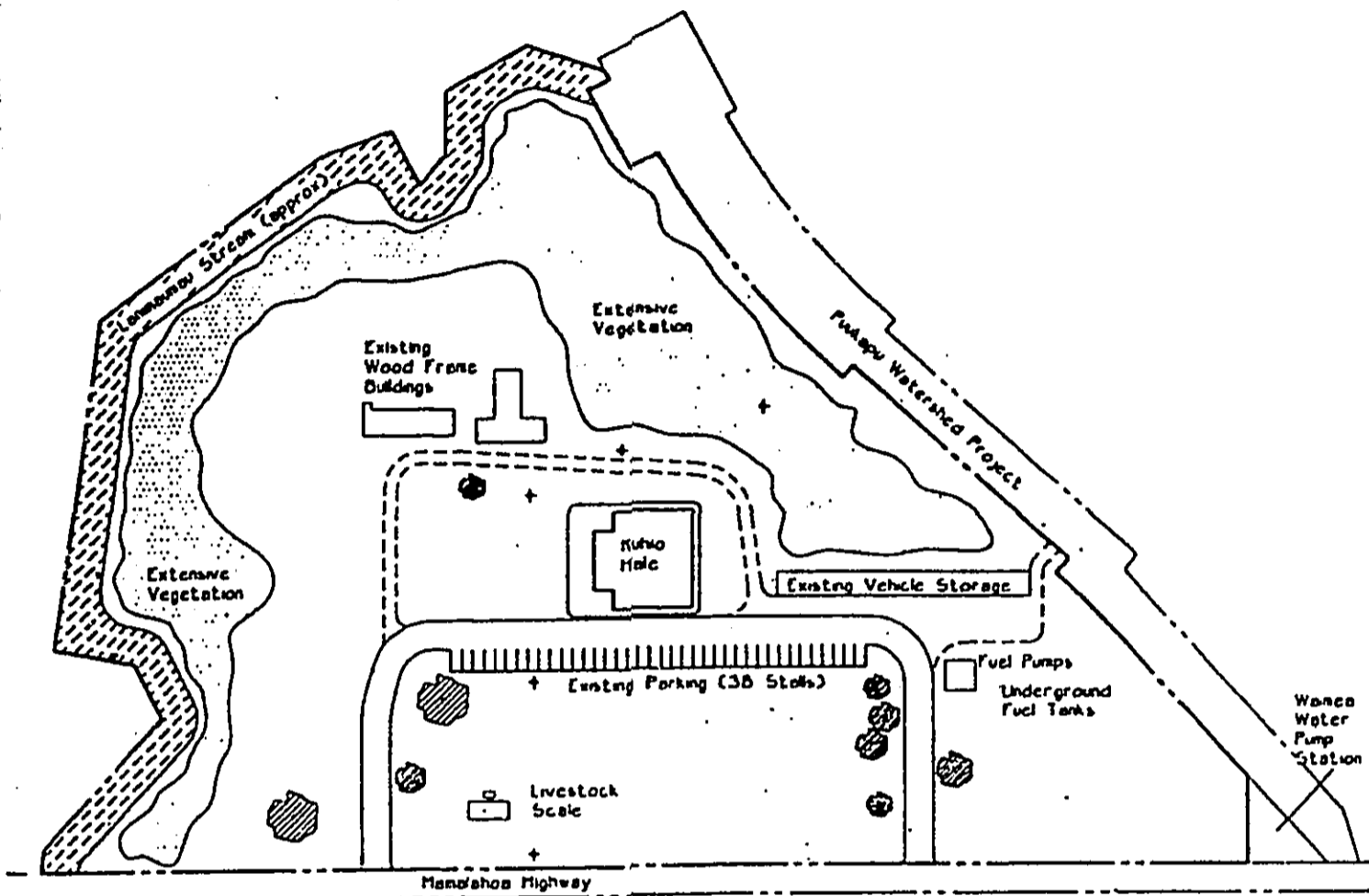


FIGURE 3

Kuhio Hale Site Plan

KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL



September 2000

Source: Department of Hawaiian Home Lands

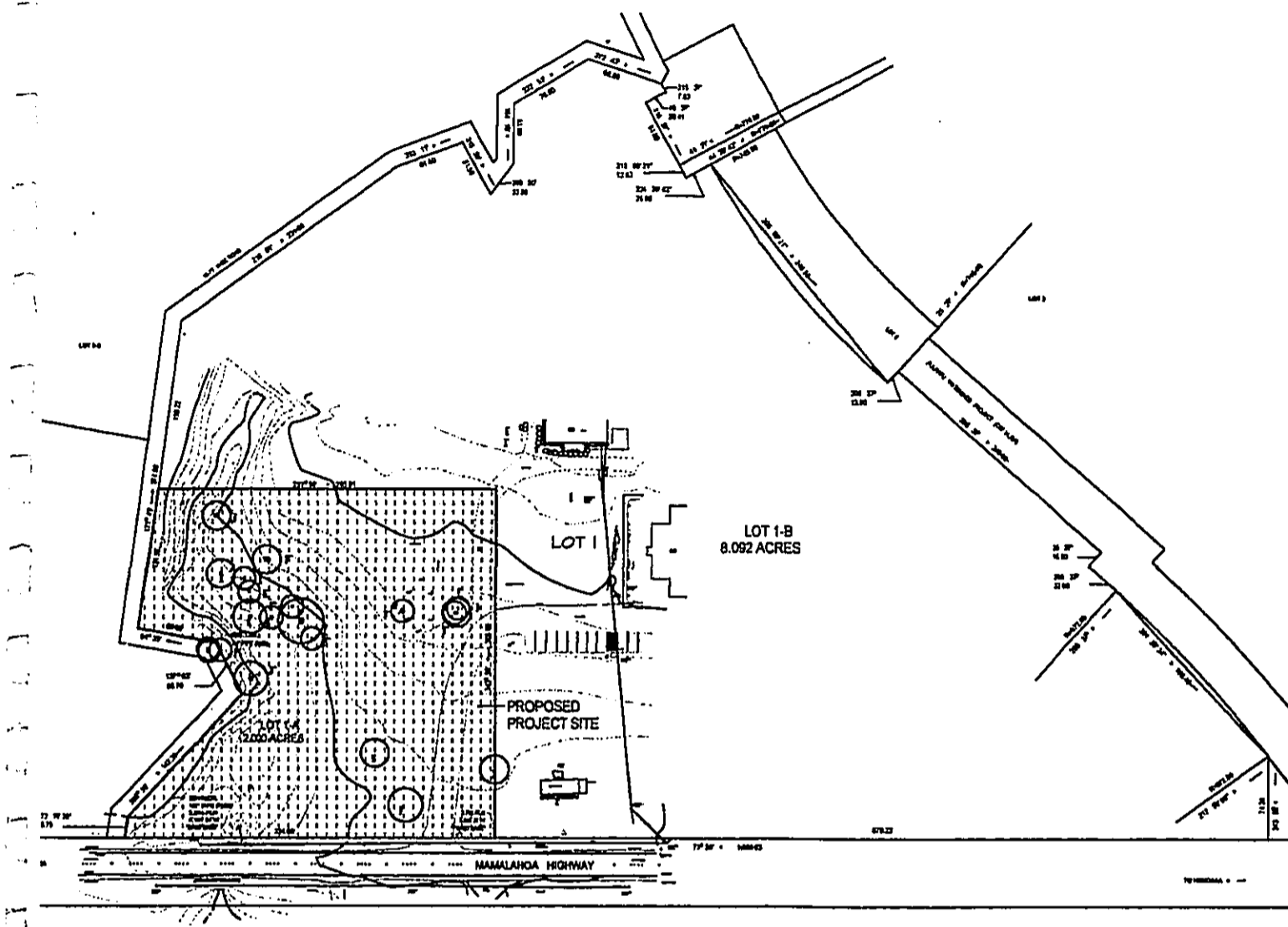


FIGURE 4

Project Site Map

KAMEHAMEHA SCHOOLS.
WAIMEA PRESCHOOL



September 2000

Source: Imata & Associates

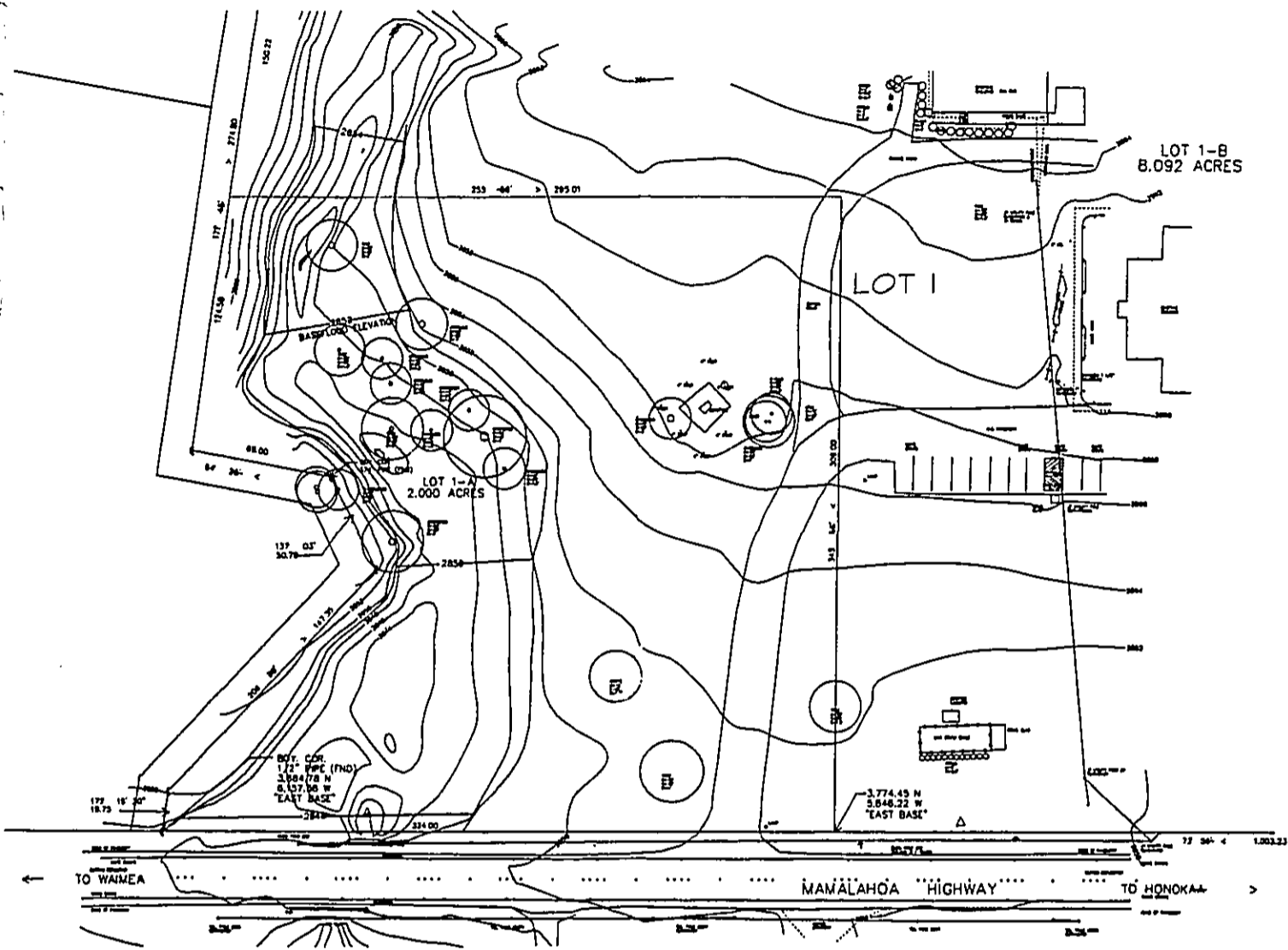
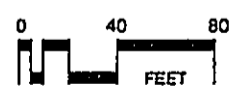


FIGURE 4A

Detailed Site Map

KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL



September 2000

Source: Imata & Associates

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1.3 SITE OWNERSHIP AND LAND EXCHANGE

The Preschool site is a 2-acre portion of DHHL property which houses Kūhiō Hale, a State building which serves as the DHHL West Hawai'i offices and as a community center for the Waimea Hawaiian Homes Association and the general Waimea community.

The DHHL General Management Plan for Waimea does not specifically designate the parcel for the proposed use, however, DHHL policies encourage the development of support facilities and programs for the Hawaiian Home Lands residents in the community.

As the landowner, DHHL has formal agreements with Kamehameha Schools for the use of the land for community benefit projects. DHHL is in the process of issuing a long-term lease for use of the property to Kamehameha Schools. DHHL and Kamehameha Schools have agreed in principle on a land exchange which would include the subject Waimea Preschool parcel or parcels on the island of Hawai'i owned by DHHL and Kamehameha Schools with equivalent fair market value. The final land exchange agreement is subject to the approval of the Kamehameha Schools Board of Trustees and the Hawaiian Homes Commission in their sole discretion. The final land exchange agreement is also subject to the approval by the State Department of the Attorney General and the U.S. Secretary of the Interior and compliance with the exchange provision in Section 204(a)(3) of the Hawaiian Homes Commission Act, 1920, as amended. Upon completion of the land exchange, the long-term lease agreement will be terminated.

1.4 IDENTIFICATION OF THE APPLICANT

Kamehameha Schools

Kamehameha Schools, is a private, charitable, perpetual trust dedicated to the education of Hawaiian children and youth. Established in her will of 1883, the Kamehameha Schools is a legacy of Princess Bernice Pauahi Bishop, great-granddaughter and last direct royal descendant of King Kamehameha the Great. Princess Pauahi designated the Kamehameha Schools her sole beneficiary and directed that the trustees of her estate "... provide first, and chiefly, a good education ... as may tend to make good and industrious men and women."

Today, nearly 1,000 children are enrolled in the Kamehameha Schools Preschool Program statewide. There are currently 3,000 students in grades Kindergarten (K) through 12 attending Kamehameha Schools Kapālama campuses on O'ahu, Pukalani on Maui and East Hawai'i. More than 8,900 young Hawaiians receive KS scholarships and financial aid including 25 percent of all Hawaiians in the University of Hawai'i system and other post-secondary programs across the nation.

The Kamehameha Schools Preschool Program was formed in 1980 and its present goal is to increase its statewide preschool enrollment to about 1,800 by the year 2004. Designed for 3- and 4-year-old children, the program recognizes that the early years of a child's life are crucial to success in school and in society.

The new Waimea Preschool will provide four classrooms with a capacity to serve a total of 80 children between the ages of 3 and 4.

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Department of Hawaiian Home Lands

The Department of Hawaiian Home Lands is one of the 18 agencies of the Executive Branch of the State of Hawai'i. It differs from other executive departments in the following ways:

- Its mission is to manage the Hawaiian Home Lands trust effectively, and to develop and deliver land to native Hawaiians. Native Hawaiians are defined by DHHL as individuals of at least 50 percent Hawaiian blood.
- DHHL manages a land trust consisting of 203,500 acres of land on Hawai'i, Maui, Moloka'i, O'ahu, and Kaua'i.

The legal basis for the Department's existence is the Hawaiian Home Commission Act (HHCA), 1920, as amended. The Act was passed by the U.S. Congress and signed into law by President Harding on July 9, 1921.

DHHL provides direct benefits to native Hawaiians through 99-year homestead leases at an annual rental of \$1 for residential, agricultural or pastoral purposes. The intent of the homesteading program is to promote economic self-sufficiency through the provision of land.

Other benefits provided by the HHCA include financial assistance through direct loans or loan guarantees for home construction, home replacement or repair, and for the development of farms and ranches; technical assistance to farmers and ranchers; and the operation of water systems. In addition to administering the homesteading program, DHHL is also authorized to lease lands and issue revocable permits, licenses, and rights-of-entry for lands not in homestead use. Revenues from lands in commercial, industrial, and other income producing uses are to support homestead development activities.

1.5 IDENTIFICATION OF APPROVING AGENCY

The DHHL is the approving agency for the environmental assessment.

1.6 IDENTIFICATION OF AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED

In the course of planning for this project, agencies (or agency documents), community individuals and organizations have been consulted and/or provided information for the preparation of this environmental assessment.

County of Hawai'i Agencies

Department of Public Works
Department of Research and Development
Department of Water Supply
Fire Department
Planning Department
Police Department

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State of Hawai'i Agencies

Department of Agriculture
Department of Business, Economic Development & Tourism, Office of Planning
Department of Business, Economic Development & Tourism, Energy, Resources & Technology
Division
Department of Health
Department of Land and Natural Resources
Department of Land and Natural Resources - Commission on Water Resource Management
Department of Land and Natural Resources - State Historic Preservation Division
Land Use Commission
Office of Environmental Quality Control
Office of Hawaiian Affairs

Federal Agencies

Federal Emergency Management Agency
US Department of the Army

Community Organizations

Pūnana Leo O Waimea
Waimea Community Association
Waimea Hawaiian Homes Association

2.0

Project Description

2.0 PROJECT DESCRIPTION

The description of the proposed Waimea Preschool, construction activities, and preliminary development timetable and approximate development costs are described below

2.1 BACKGROUND INFORMATION

2.1.1 Surrounding Land Uses

The Preschool site is bordered by Māmalahoa Highway to the south, Lanimaumau Stream to the west Pu'u Kakanihia to the northwest, and the DHHL property in the remaining directions. The broader area includes Hawaiian Home Land communities at Pu'ukapu Homesteads, Kūhiō Village, and other pastoral lots. Waimea Town is approximately 1 1/2 miles to the west and the airport is approximately 3 miles to the west. Nearby uses include open pasture lands to the northwest.

2.1.2 Description of the DHHL Property

The 10-acre DHHL property consists of the land parcel identified as TMK: 6-4-01:59. Access to the property is from two driveways at Māmalahoa Highway which loops through the property in an east - west direction. The west driveway bisects the Waimea Preschool property, and is therefore, planned to be relocated to the outside east boundary of the Preschool site to allow full use of the limited two-acre Preschool parcel. The Lanimaumau Stream drainage system and the diversion channel (identified as the Pu'ukapu Watershed Projector channel) border the property.

Other uses on the DHHL property include, but are not limited to, Kūhiō Hale which contains DHHL state offices and a community hall, the Pūnana Leo o Waimea Hawaiian language immersion preschool, a vehicle storage facility, and a scale house. These uses are described below:

- *Kūhiō Hale.* Kūhiō Hale serves as the DHHL West Hawai'i office building and as a community hall. The community hall serves the Waimea Hawaiian Homes Association and the overall Waimea community.
- *Parking Lot.* There are 38 paved parking stalls and a lawn for overflow parking.
- *Vehicle Storage.* The vehicle storage structure houses vehicles, tools, and supplies.
- *Farmers Market.* The lawn is used by the Waimea Hawaiian Homes Farmers' Association for farmers' market each Wednesday and on weekends.
- *Pūnana Leo O Waimea.* Pūnana Leo O Waimea is a Hawaiian language immersion preschool which operates from a single-story wood frame building towards the north end of the property. The statewide Pūnana Leo program offers instruction to children and families in the Hawaiian language. The Waimea program has an enrollment of about 20 students and employs 5 staff members. Hours of operation are 7:30 AM to 3:30 PM, Monday through Friday. Evening adult Hawaiian language classes are held two to three times per week.

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- *Livestock Scale House.* The scale house is used for livestock, trucks and trailers.
- *Sewage System.* An existing cesspool which serves Kūhiō Hale is located on the site of the proposed Waimea Preschool. This cesspool will be closed and replaced with separate septic systems to serve Kūhiō Hale and the new Preschool. Pūnana Leo is served by its own septic system.

Kamehameha Schools Waimea Preschool Site

The two-acre Preschool site will occupy the south western corner of the 10-acre DHHL parcel. The generally square site is bounded by Lanimaumau Stream gulch to the west, by Māmalahoa Highway to the south, and by other areas of the DHHL property in the remaining directions.

The Preschool site generally ranges from 2,848 to 2,860 feet mean sea level (MSL) in elevation. The two-acre Preschool site is a vacant parcel. The intermittent Lanimaumau Stream crosses through the western boundary. Prior to the construction of the Pu'ukapu Watershed Project (believed to be in the 1970's), this location of Lanimaumau Stream supported the mauka stream flows. Presently, however, since the construction of the Pu'ukapu concrete channel which diverts the mauka Lanimaumau and Hauani Gulch tributary flows in an easterly direction to a field south of Māmalahoa Highway. Lanimaumau Stream at the location of the Preschool is dry except for periods of extreme rainfall when it drains the surface sheet flows of the immediate surrounding areas.

The west access driveway currently bisects the Preschool site. The Preschool site plan proposes to relocate the west driveway approximately 70 feet to the east to a new adjacent location.

2.2 OVERALL PROJECT OBJECTIVE

Formed in 1980, the Kamehameha School Preschool Program is designed for 3- and 4-year-old children. The program recognizes that the early years of a child's life are crucial to success in school and in society. Studies show that children who have preschool experience are more likely to graduate from high school, be employed, own their homes and be productive members of their communities. The Kamehameha Schools Preschool Program is based on the belief that children learn best with the help of their parents, teachers, and peers and through experience with their physical and social environment.

Because skill in oral and written communication is necessary for success in school, the program emphasizes language and literacy. The curriculum also addresses each child's social, emotional, physical, intellectual, cultural and spiritual needs. Performance goals are developed with the understanding that individual children achieve at different levels.

2.3 PROJECT DEVELOPMENT GOALS

The new Waimea Preschool is proposed to fulfill, in part, the overall Kamehameha School mission to increase the opportunity for early education for families by the year 2004. The new facility will allow the Preschool program to serve eighty (80) Waimea-area 3- and 4-year-old children to benefit from the programs offered.

2.4 PROJECT DESIGN

The campus is planned to a scale befitting the 3- and 4-year old students it will serve. The architecture will incorporate design elements which will complement the gracious Waimea pastoral landscape.

The site is almost square in configuration, however, the net buildable area of the site is reduced due to the drainage channel at the west boundary. The Site Plan is shown in Figure 5.

2.5 PROJECT COMPONENTS

The campus will consist of three main buildings, an outdoor play area, a 23-stall parking lot, and natural open space. All buildings will be linked by covered walkways.

- *Classroom Buildings.* These two single-story buildings each include two classrooms, restrooms, common kitchen, storage rooms, and a covered lanai. Three-year olds will be served in one classroom and 4-year olds in the other. The floorplan is shown in Figure 6.
- *Administration Building.* This single-story building includes a reception area, waiting area, teachers' work room, restrooms, an office, storage room, and electrical room.
- *Parking.* The parking lot will include 23 parking stalls, including two accessible to persons with disabilities.
- *Playground.* The outdoor play area is enclosed within a courtyard formed by the main buildings and will include a lawn with a circular tricycle path and playground equipment along with a covered lanai.
- *Storage Areas.* One storage room will store outdoor playground equipment, tricycles, scooters, parachute, hula hoops, etc. A second storage room will be for maintenance equipment.
- *Landscaping.* Canopy trees will shade the parking lot and perimeter hedging will be used to screen views of cars. Existing native trees which will remain include two 30-foot tall koa trees and a 20-foot tall koai'e tree. Mature ironwood trees outside the buildable areas will also remain. The playground and classroom buildings will be fenced.

2.6 SUPPORTING INFRASTRUCTURE

Access Driveway. Access to the Preschool site will be from Māmalahoa Highway via a looped driveway which is shared with the existing uses on the DHHL property. The existing west access driveway is located within the Preschool site and will require relocation approximately 70 feet to the east. The construction of the new driveway will be the responsibility of Kamehameha Schools.

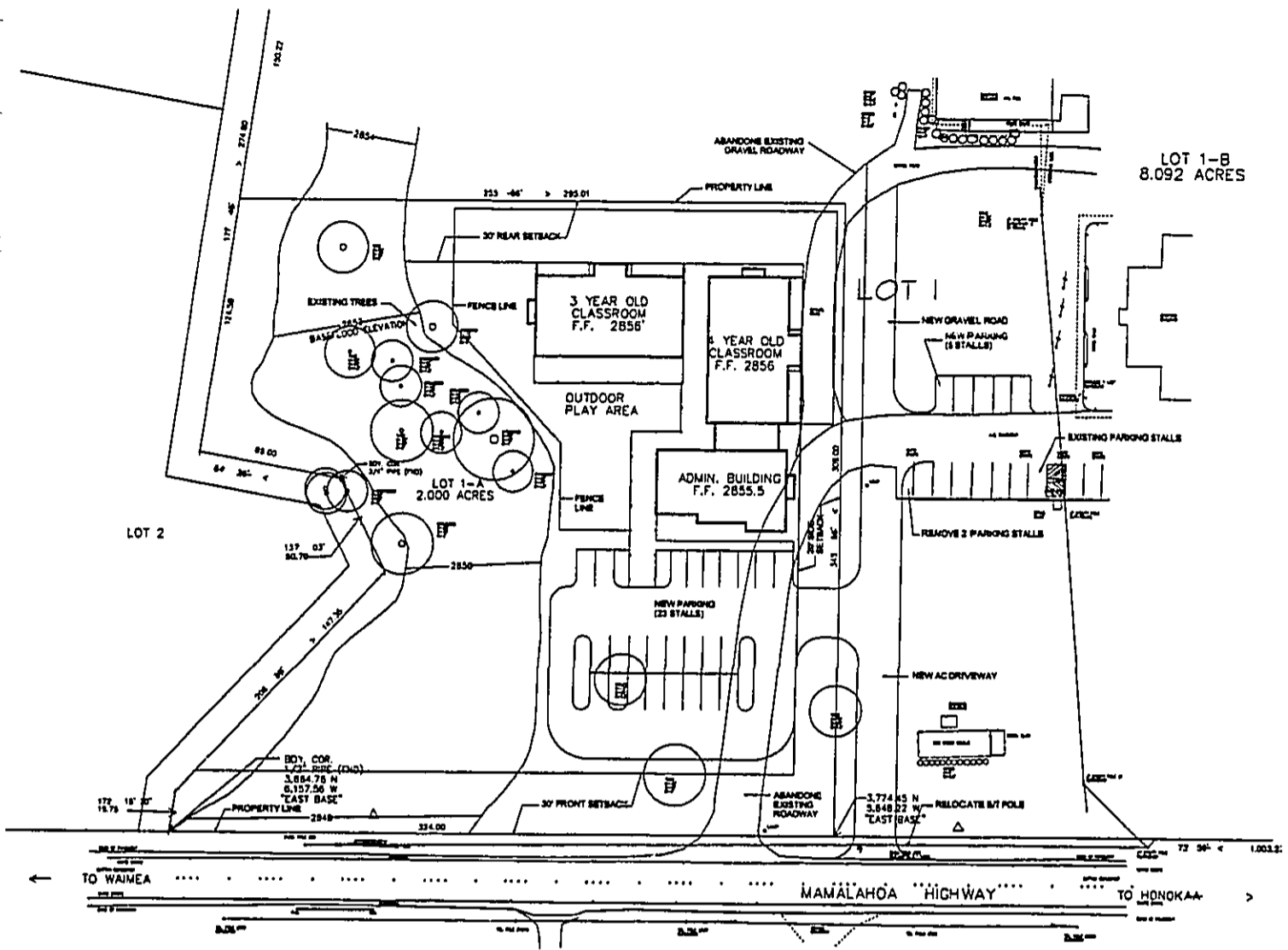


FIGURE 5
Site Plan

KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL



Source: James M. McKeague, Architect & Associates

September 2000

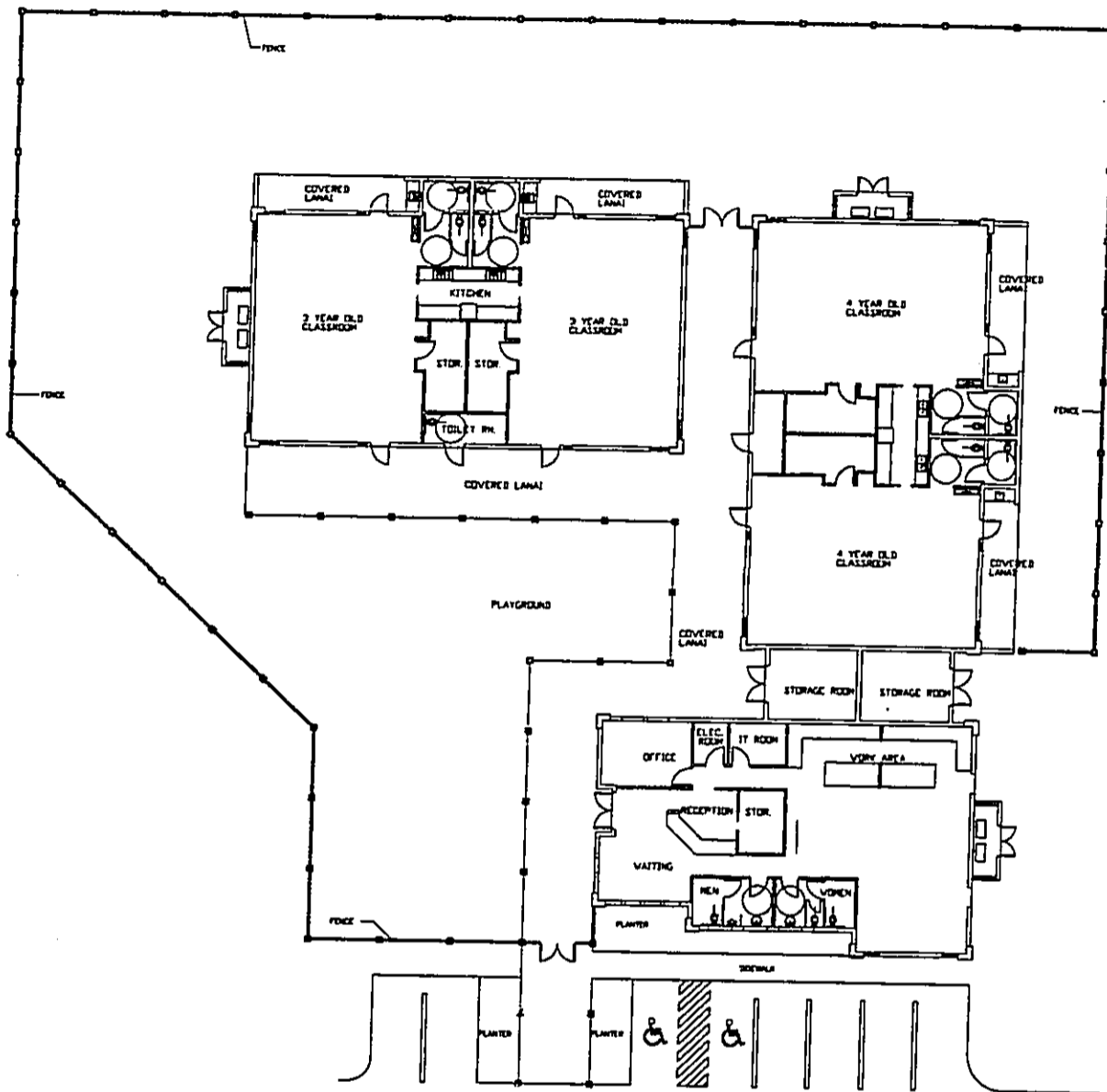


FIGURE 6
Floor Plan

KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL



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Source: James M. McKeague, Architect & Associates

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Water. Hookups to the County water system is anticipated through the existing water mains located within the Māmalahoa Highway right-of-way.

Sewer. The existing DHHL cesspool which is located on the Preschool site will be filled and a new septic system is being designed. A preliminary independent wastewater system (IWS) plan (Figure 7) indicates that a new septic/leach field system will be constructed on the DHHL retained site to serve Kūhiō Hale. The associated costs for the replacement sewage system will be shared between DHHL and Kamehameha Schools.

Each of the three Waimea Preschool buildings will be served by new septic/ leach field system as shown in Figure 7.

Electricity. A Hawai'i Electric Light Company (HELCO) utility line is located within the Māmalahoa Highway corridor adjacent to the property.

Communications. GTE Hawaiian Tel lines are located within the Māmalahoa Highway corridor.

2.7 SUSTAINABLE BUILDING DESIGN

The Office of Environmental Quality Control (OEQC) has issued draft "Guidelines for Sustainable Building Design in Hawai'i: A planner's checklist" (OEQC May 1999) and has requested that consideration be made in applying sustainable building techniques to projects. The OEQC Guidelines state that "[a] sustainable building is built to minimize energy use, expense, waste, and impact on the environment. It seeks to improve the region's sustainability by meeting the needs of Hawai'i's residents and visitors today without compromising the needs of future generations." An evaluation of the project indicates that many of the techniques described in the Guidelines will be implemented, including the following: 1) use less energy for operation and maintenance, 2) preserve and conserve water and other natural resources, 3) minimize health risks to those who construct, maintain, and occupy the building, 4) minimize construction waste, 5) recycle and reuse generated constructed wastes, 6) provide the highest quality product practical at competitive (affordable) costs.

2.8 DEVELOPMENT TIMETABLE AND APPROXIMATE COSTS

The construction of the Preschool is planned for late 2000 and is expected to be completed by Fall 2001. The building construction cost is approximately \$1.9 million.

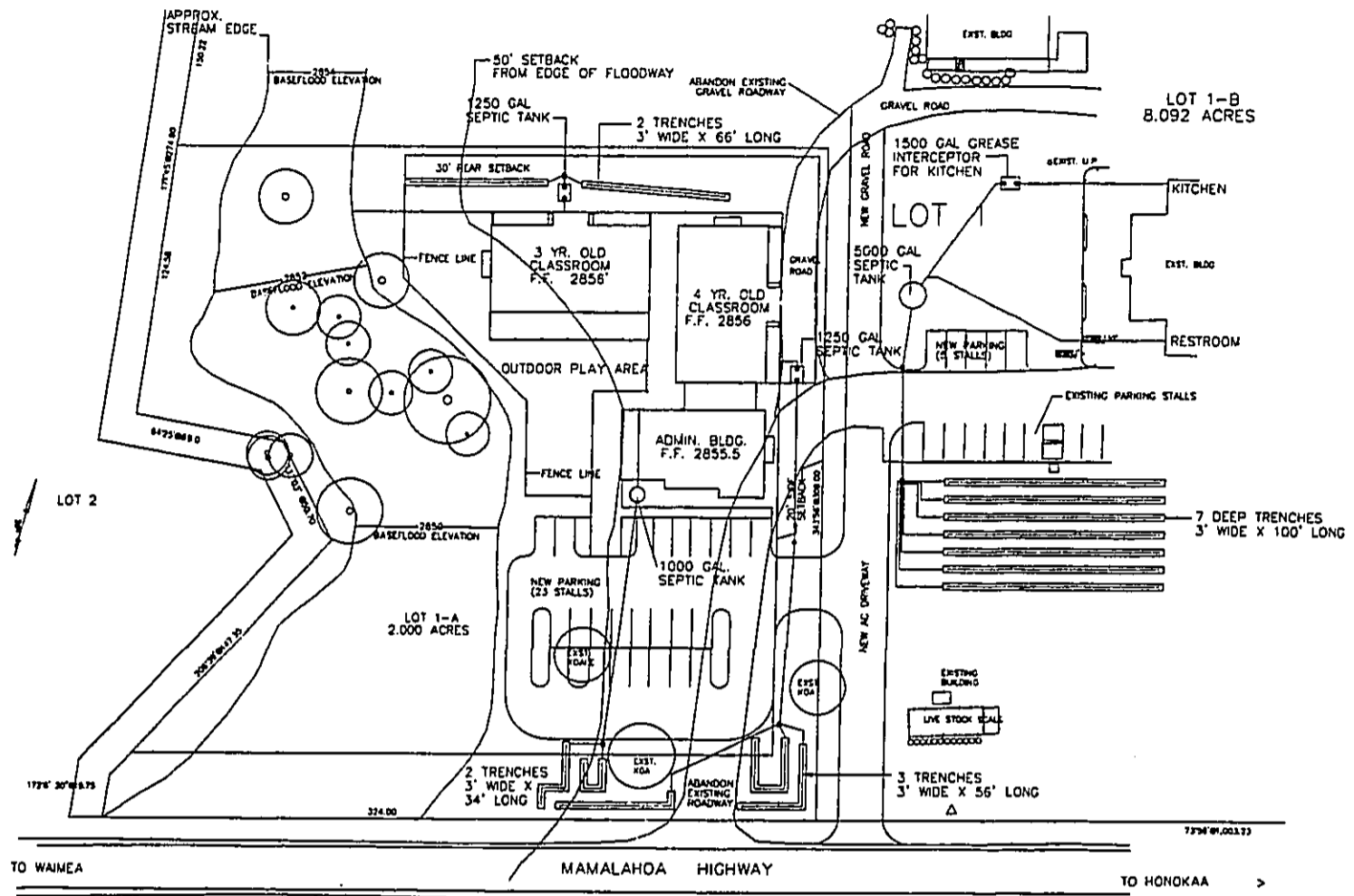


FIGURE 7
 Preliminary Independent
 Wastewater System (IWS) Plan
 KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL



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Source: Jacoby Engineering, Inc.

3.0

Land Use Conformance

3.0 LAND USE CONFORMANCE

Department of Hawaiian Home Lands are not subject to the General Plan and zoning ordinance designations pursuant to the Legal Memorandum dated May 6, 1994 by the State Attorney General. Described below is the existing state and county zoning designations; however, the project is being designed to be consistent with the surrounding HHL residential neighborhoods.

3.1 STATE OF HAWAII

3.1.1 State Land Use

The project site is located within the State Agricultural Land Use District (Figure 8). A Special Use Permit for the development of the Waimea Preschool within the State Agricultural Land Use District will be granted an exemption by DHHL.

3.1.2 Hawai'i State Plan

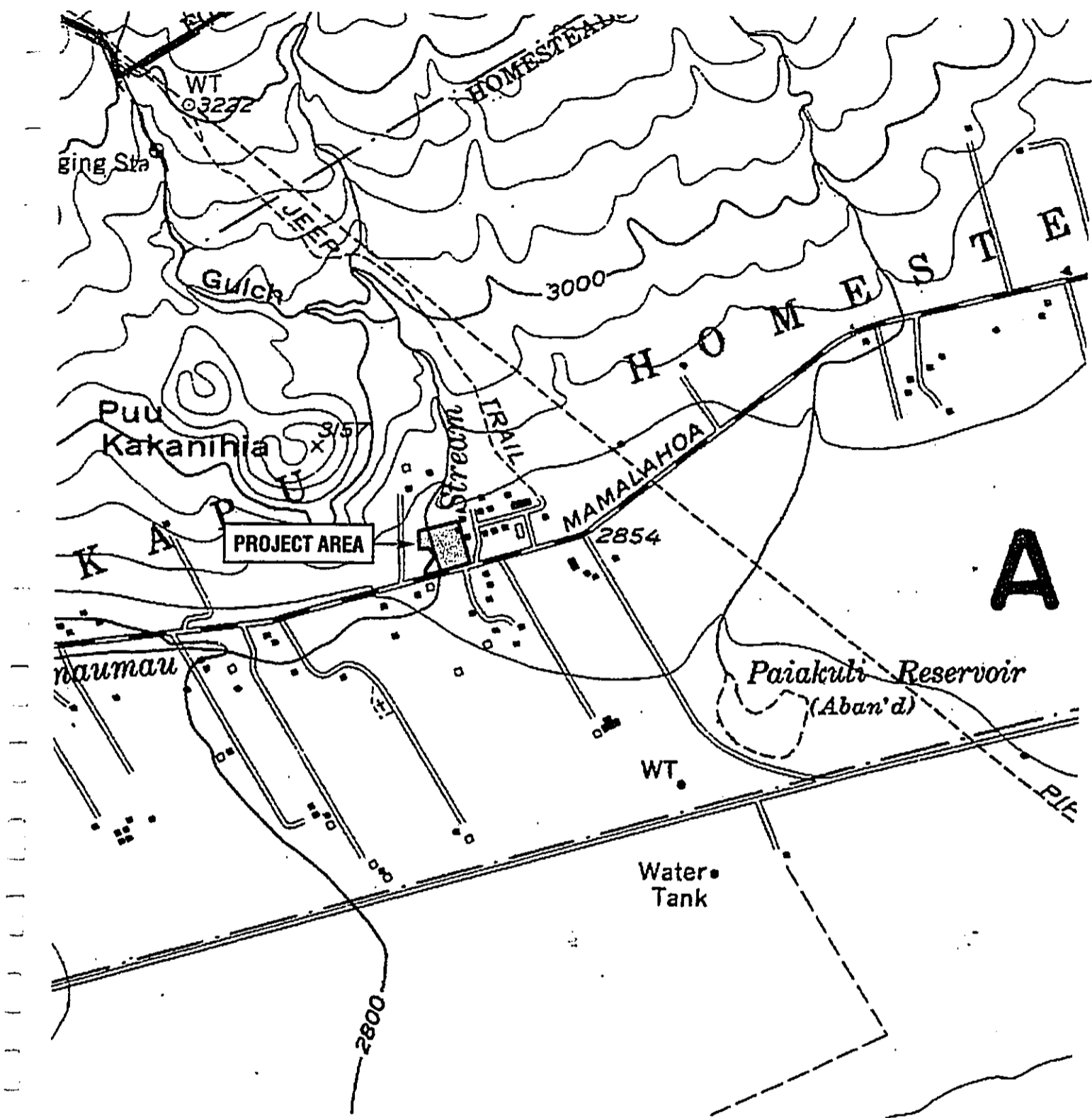
The proposed Waimea Preschool is consistent with the following State Plan objectives and policies.

To achieve the education objective, it shall be the policy of this State to:



- *Develop resources and programs for early childhood education. (226-107(7))*
- *Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups. (226-21b (1))*
- *Promote educational programs which enhance understanding of Hawai'i's cultural heritage. (226-21 b(4))*
- *Emphasize quality educational programs in Hawai'i's institutions to promote academic excellence. (226-21 b(8))*
- *Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning. (226-21 b(7))*

3.1.3 State Functional Plans

The Statewide planning systems requires the development of State Functional Plans which are approved by the Governor. The State Functional Plans guide the implementation of the State and County actions in the areas of agriculture, conservation lands, education, employment, energy, health, higher education, historic preservation, housing, human services, recreation, tourism, transportation, water resources, and other areas designated by the Governor. The State Functional Plans delineate specific strategies of policies and priority actions that should be addressed in the short term and place emphasis on the implementation of programs and actions. They are intended to act in a coordinated fashion with County General Plans and Development Plans. The Waimea Preschool is consistent with the following goals and policies.





LEGEND


-  Project Area
-  Agricultural

Source: State Land Use Commission

FIGURE 8
State Land Use Boundary Map
 KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL

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3.1.3.1 State Education Functional Plan

- C(1) Policy Develop resources and programs for early childhood education.*
- C(1) Goal Make learning a lifelong experience that is affordable, effectively presented, and offered at convenient times and places.*
- A(2)(a) Promote the teaching of the basic skills of speaking, listening, reading, writing, computing, reasoning, and other life-role competencies in all program areas and obtain adequate resources to meet the needs of all learners.*
- A(4) Goal Provide facilities that are sufficient in number, functional, well-placed and compatible with the physical surrounding.*

3.2 COUNTY OF HAWAI'I

3.2.1 General Plan

The property is designated as Intensive Agricultural on the County General Plan Land Use Allocation Guide Map (LUPAG) (Figure 9).

As required by the County of Hawai'i Charter, the General Plan for Hawai'i County serves to create a "statement of development objectives, standards and principles with respect to...matters that may be beneficial to the social, economic and governmental conditions and trends, and shall be designed to assure the coordinated development of the county, and to promote the general welfare and prosperity of its people."

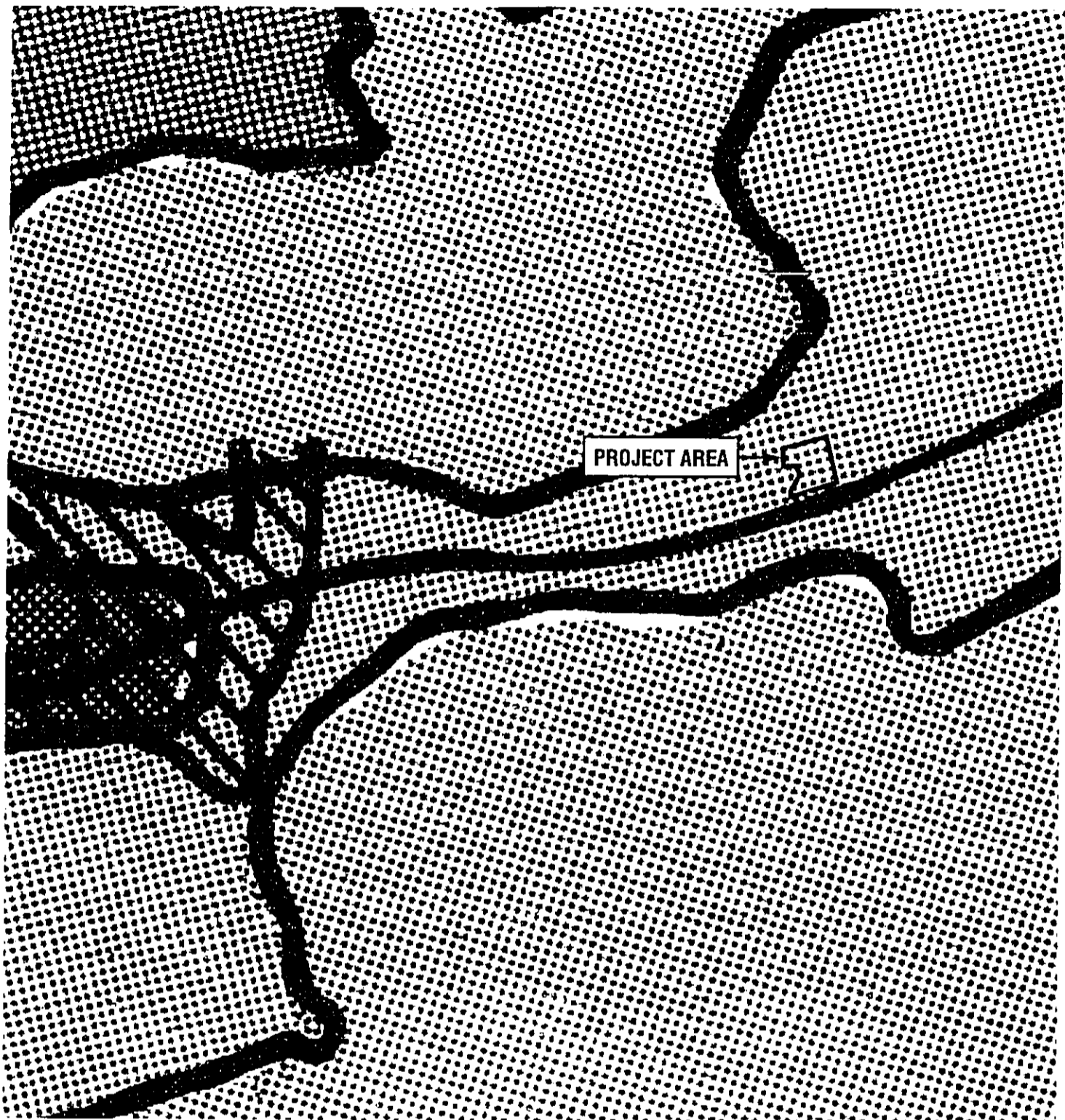
The proposed Preschool is in accordance with the following policies and standards:

POLICIES





- *The County shall encourage continuous joint pre-planning of schools with the Department of Education and the University of Hawai'i to ensure coordination with roads, water, and other support facilities and considerations such as traffic and safety, and access for vehicle, bicycle, and pedestrian. Encourage master planning of present and proposed public and private institutions.*

3.2.2 County Zoning

The property is zoned Agricultural - 40 acres (A-40a) (Figure 10). Pursuant to the Hawai'i County Code Section 25-5-72 (d)(3), Day care centers are a permitted use in the County Agricultural district with a County Special Permit for use within the State Agricultural district. As authorized, an exemption will be granted by DHHL from the Special Permit requirement.



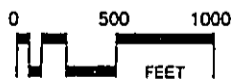
LEGEND

-  Low Density
-  Intensive Agriculture
-  Open Area
-  Medium Density

Source: County of Hawaii, Planning Department

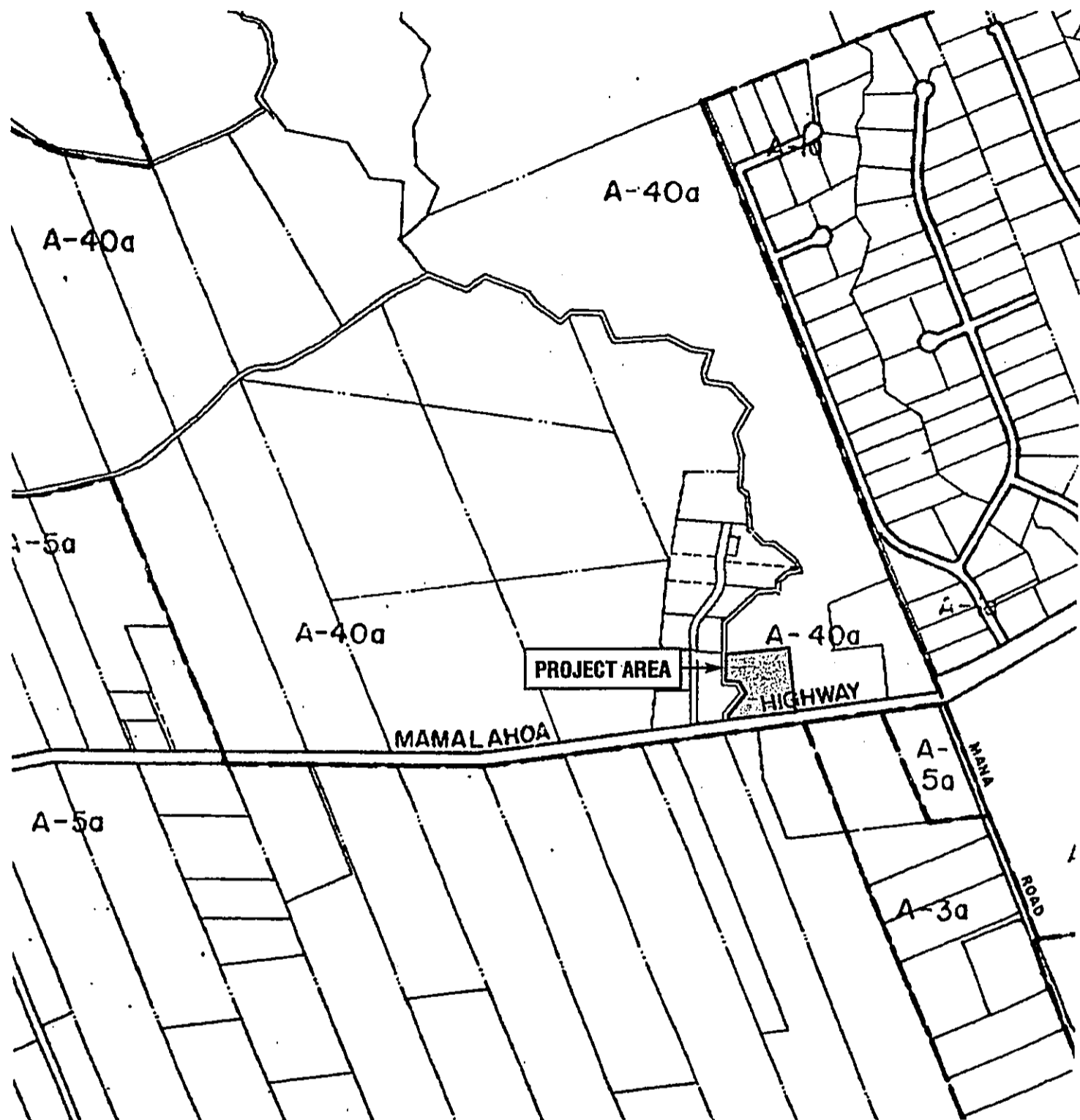
FIGURE 9
County General Plan Map

KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL







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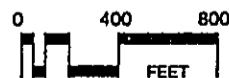
LEGEND

-  Project Area
-  A-40a Agricultural - 40 acres
-  A-5a Agricultural - 5 acres
-  A-3a Agricultural - 3 acres

Source: County of Hawaii, Planning Department

FIGURE 10
Zoning Map

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3.2.3 Special Management Area (SMA)

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

3.3 APPROVALS AND PERMITS

During the implementation stages of the project, the applicant will be working with the County review agencies for examination and approval of project plans and specifications.

Table 1. Permits and Approvals

Permit/Approval	Responsible Agency
Special Permit (less than 15 acres)	County of Hawai'i Planning Commission (Exemption from DHHL)
New Driveway	County Department of Public Works
Grading/Building Permits	County Department of Public Works
Water	County Department of Water
Septic System	State Department of Health

4.0

Description of the Affected Environment, Potential Impacts of the Proposed Action, and Mitigative Measures

4.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT, POTENTIAL IMPACTS OF THE PROPOSED ACTION, AND MITIGATIVE MEASURES

The environment surrounding the proposed project includes the physical or natural environment and the human or social environment. This section describes the existing conditions, potential impacts to the environment, and mitigative measures.

4.1 PHYSICAL CHARACTERISTICS

4.1.1 Topography and Geology

The parcel is relatively level with a slope ranging from 1 to 5 percent and elevations ranging from 2,848 ± feet mean sea level (MSL) to approximately 2,860 ± feet (MSL). The geology of the site is classified as Pololū Basalt which consists of mainly thin bedded lava flows, forms of the lava flows, vent deposits, littoral deposits, and tephra-fall deposits of tholeitic basalt and rare transitional basalt of Mauna Loa Volcano.

Lanimaumau Stream forms the western boundary of the Preschool parcel. Due to Pu'ukapu division channel flows are not present at this location of the stream.

Potential Impacts and Mitigation Measures

The Preschool development will generally follow the existing topography in order to minimize the grading requirements during construction. Raised finish floor elevations will be in compliance with County requirements. Other than adherence to State and County codes and standards for construction, mitigation measures do not appear warranted.

4.1.2 Climate

The climate of the region is generally cool due to the higher elevations of the project site with average annual temperatures ranging from 64 to 74 degrees Fahrenheit. The mean average rainfall for the project area ranges from 50 to 75 inches, most of which occurs during the winter months. Located between Mauna Kea and the Kohaia Mountains, the project area receives winds funneled through the mountain masses, predominantly from the northeast.

Potential Impacts and Mitigation Measures

As the project will not have a significant impact on the microclimate of the area, therefore no mitigation measures are warranted. However, the relatively rainy climate in this area warrants the inclusion of covered walkways into the design of the Preschool.

4.1.3 Soils

The soil types and classifications are described by the three available soil suitability studies which focus on the physical attributes of land and the relative productivity of different land types for agricultural purposes. These are: 1) the U.S. Department of Agriculture Soil Conservation

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Service (SCS) Soil Survey; 2) the University of Hawai'i Land Study Bureau Detailed Land Classification; and 3) the State Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i (ALISH).

Soil Conservation Survey. According to the United States Department of Agriculture Soil Conservation Service, Soil Survey of the Island of Hawai'i, State of Hawai'i, 1972, the soils found on the subject property consist of two soil types (Figure 11). The description of soil characteristics on the subject property is as follows:

KfA The Kikoni series consists of well-drained very fine sandy loams that formed in volcanic ash. These soils are nearly level to moderately sloping. They are on the Waimea plains at an elevation ranging from 2,600 to 3,600 feet. They receive 35 to 70 inches of rainfall annually. The natural vegetation consists of bermuda grass, hilo grass, rattail, and kikuyu grass. Kikoni soils are used for pasture, truck crops, and wildlife habitat.

Kikoni very fine sandy loam, 0 to 3 percent slopes (KfA). Part of the Kikoni series, the surface layer has lost its strong granular structure where it has been continuously cultivated.

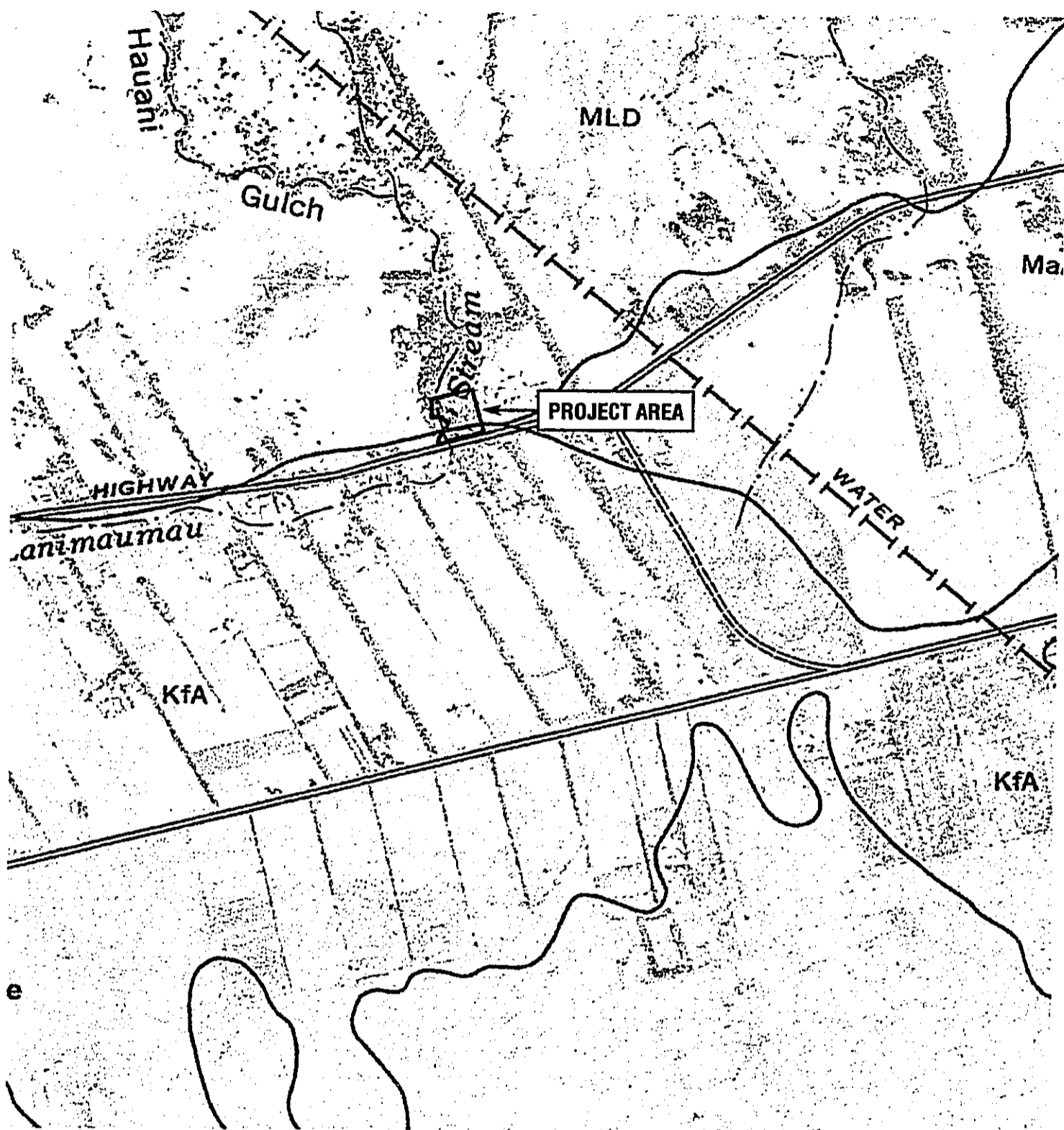
MLD The Maile series consists of well-drained silt loams that formed in volcanic ash. These are nearly level to moderately steep soils on uplands. They are at an elevation ranging from 2,500 to 4,000 feet and receive from 60 to 90 inches of rainfall annually. The natural vegetation consists of 'ohi'a, tree fern, alapaio fern, kikuyu grass and white clover.

Maile silt loam, 6 to 20 percent slopes (MLD) is at intermediate elevations on the windward side of slope of Mauna Kea.




Land Study Bureau Detailed Land Classification. The University of Hawai'i's Land Study Bureau *Detailed Land Classification Report for the Island of Hawai'i* (Figure 12) utilizes a five-class productivity rating using the letters A, B, C, D, and E with "A" representing the class of highest productivity and "E" the lowest. The physical characteristics of the soils of the Project lands are rated C.

The proposed Preschool is an allowable use within the State Agricultural District on C, D, and E rated lands according to Section 205-2(d), HRS with a Special Permit from the County of Hawai'i Planning Commission.

Agricultural Lands of Importance To The State of Hawai'i. The State Department of Agriculture *Agricultural Lands of Importance to the State of Hawai'i (ALISH)* system assesses lands through a rating system for agricultural suitability. The Project site has been rated as "prime" and "other important agricultural land" by the ALISH system (Figure 13). This classification indicates that portions of the site can be used for agricultural purposes, however, as noted by the LSB classification, these soils are rated "C" for agricultural purposes.



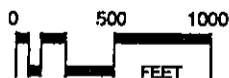
LEGEND

-  Project Area
-  MLD Maile Silt Loam
-  KfA Kikoni Very Fine Sandy Loam

Source: USDA, Soil Conservation Service Soil Survey of Island of Hawaii, State of Hawaii

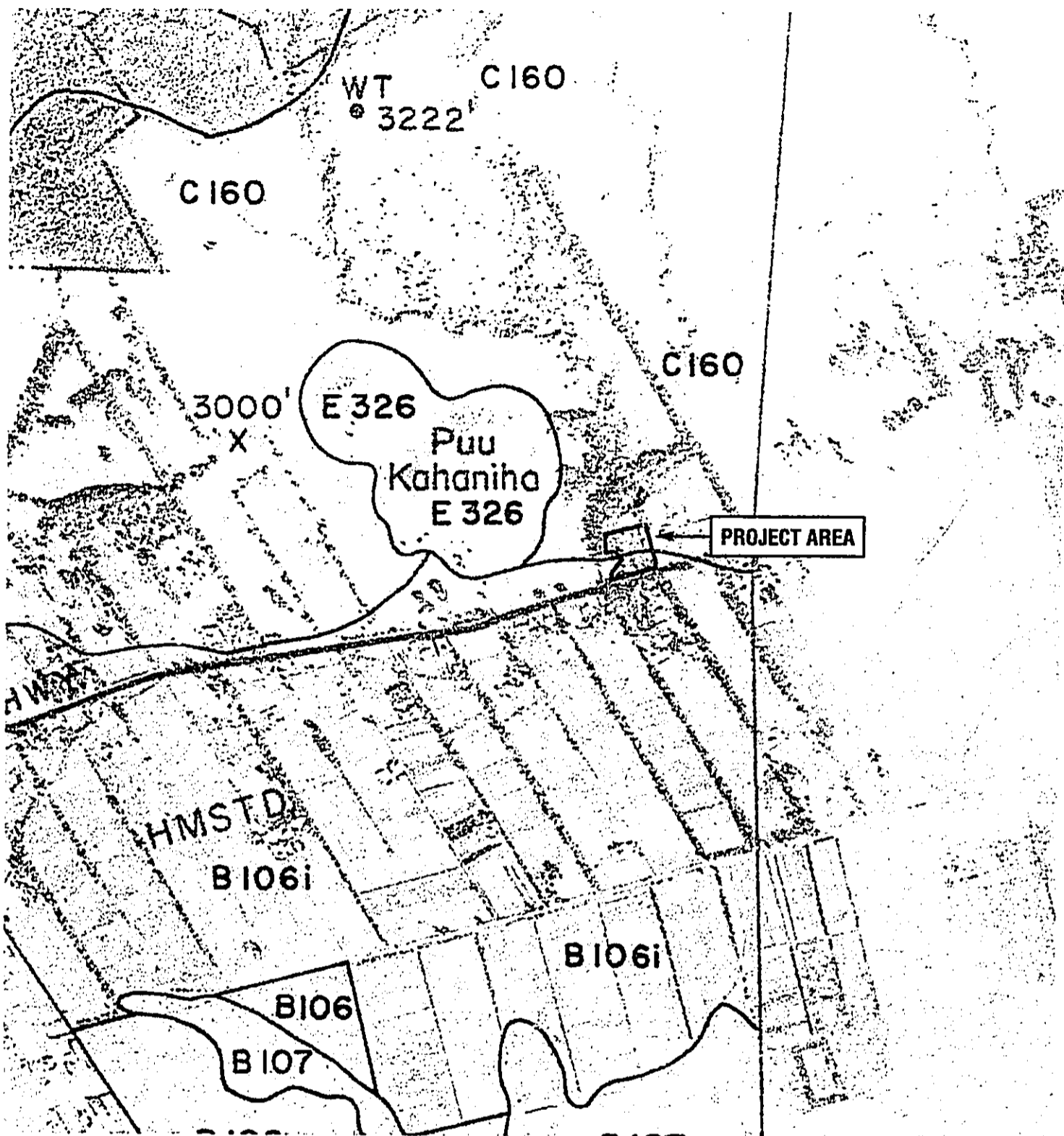
FIGURE 11
SCS Soil Survey

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LEGEND

- Project Area
- C106 Fair Suitability
- B106i Good Suitability, Irrigated

Source: University of Hawaii
Detailed Land Classification, Island of Hawaii

FIGURE 12

Detailed Land Classification

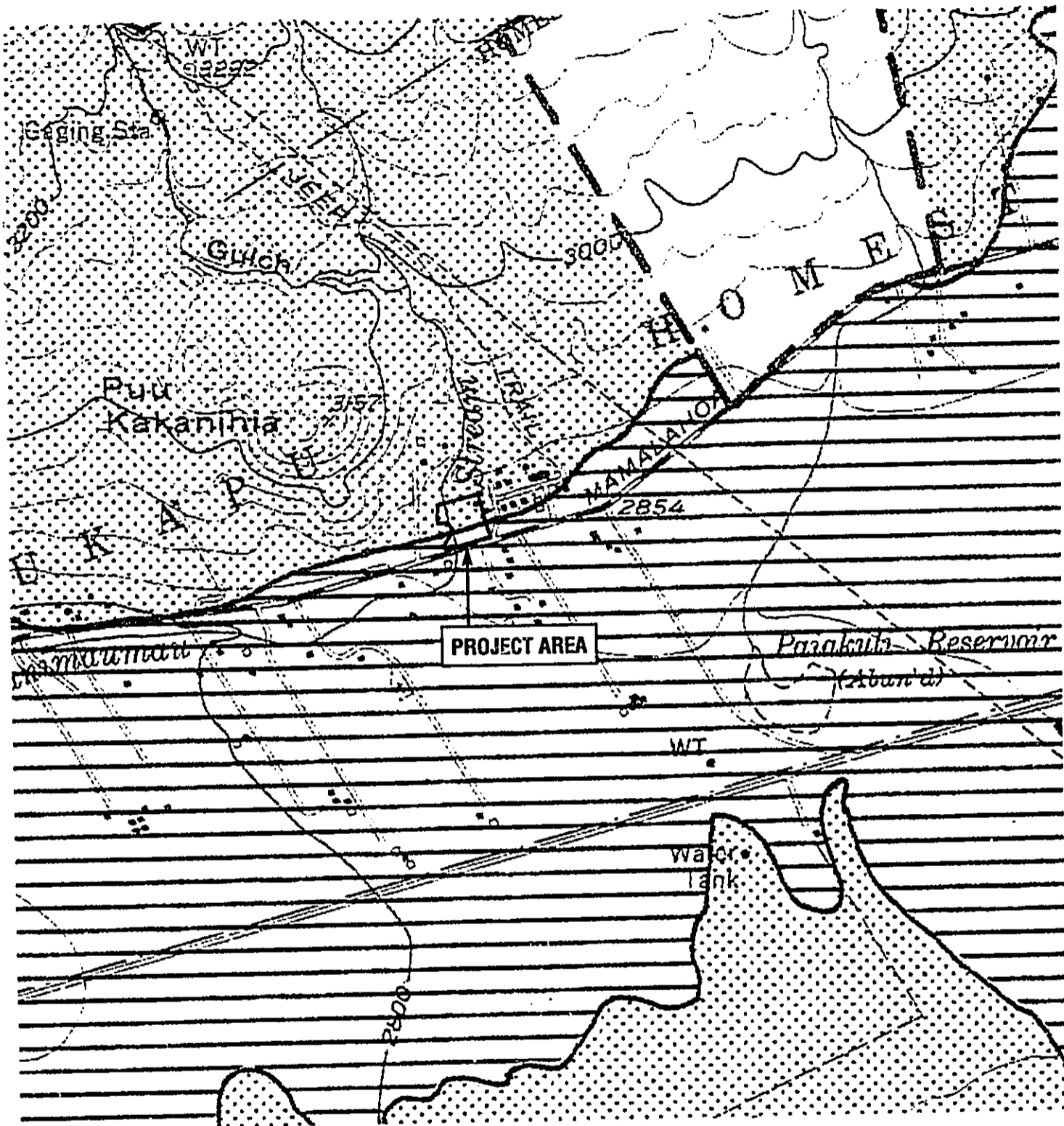
KAMEHAMEHA SCHOOLS

WAIMEA PRESCHOOL







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LEGEND

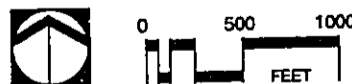
-  Project Area
-  Prime Agricultural Land
-  Other Important Agricultural Land
-  Existing Urban Development

Source: Department of Agriculture

FIGURE 13

Agricultural Lands of Importance to the State of Hawaii (ALISH)

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Potential Impacts and Mitigative Measures

The environmental factors of the site limiting its agricultural potential are primarily its size and location. Rainfall in the project area is sufficient for soil based agricultural crops. However, other areas within Waimea, the island of Hawai'i, and in the state exist where the conditions are better suited for commercial agriculture.

All grading operations will be conducted in full compliance with dust and erosion control and other requirements of the County of Hawai'i Grading Ordinance and the provisions of Chapter 11-60.1, Hawai'i Administrative Rules, Section 11-60.1-33 on fugitive dust. Best management practices (BMPs) to mitigate pollutants will be included in the construction plans.

4.1.4 Drainage

Lanimaumau Stream forms the western boundary of the Preschool site. At this location and the areas immediately upstream and downstream, the stream is generally dry except for periods of extreme sustained rainfall. Prior to the construction of the Pu'ukapu Watershed Project, Lanimaumau Stream provided an important drainage function, however, its diversion into the Pu'ukapu concrete channel located to the northeast of the DHHL property, has changed the natural characteristics of the stream and the area surrounding the stream, including the subject Preschool site.

The Federal Emergency Management Act (FEMA) Flood Insurance Rate Map (FIRM) Community Panel Number 155166 0167 C dated September 16, 1988 (Figure 14) indicates that portions of the project site are in the "AE" zone where base flood elevations have been determined.

The Waimea area has no County drainage infrastructure other than surface channelization which directs runoff into either the two nearby streams (Lanimaumau and Kamuela Streams), into lava tubes, or into the dry, uninhabited regions south of the town.

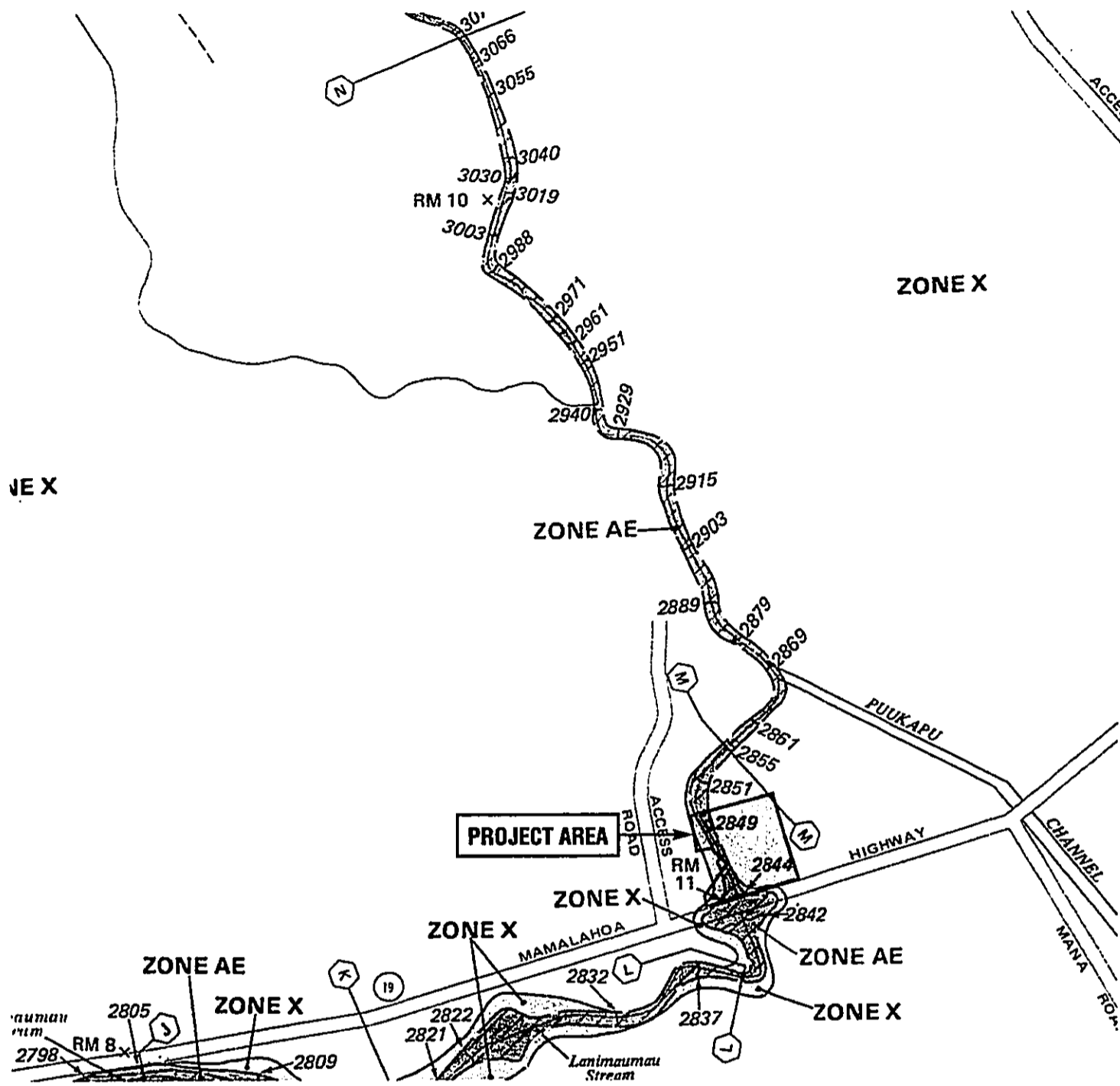
Potential impacts and Mitigative Measures

All proposed Preschool improvements (e.g. buildings) are sited to be outside the "AE" flood zone. In addition, the proposed buildings with finish floor elevations of 2855.5 to 2856 feet would be approximately 4 to 5 feet above the adjacent base flood elevations. A letter report by the civil engineer is contained in Exhibit A.





The proposed development will increase runoff to surrounding areas because impermeable surfaces will be increased by the construction of buildings and the paved parking lot. Additional drainage runoff will be directed to the adjacent stream and landscaped areas within the project area.

4.1.5 Natural Hazards

The Hawaiian islands are associated with volcanic eruption or tectonic movement. All structures will be constructed for protection from earthquakes in accordance with the Uniform Building Codes adopted by the County of Hawai'i.



LEGEND

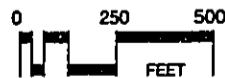
-  Project Area
-  Base flood elevations determined
-  Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.
-  Areas determined to be outside 500-year flood plain.

Source: Flood Insurance Rate Map, State of Hawaii
Map # 155166 0167 C

FIGURE 14

Flood Insurance Rate Map (FIRM)

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The State of Hawai'i has been affected twice in the past 17 years by devastating hurricanes, 'Iwa in 1982 and 'Iniki in 1992. While it is difficult to predict these natural occurrences, it is reasonable to assume that future events could be likely given the recent record. The project area, as the rest of the island or state, is no more or less vulnerable to the destructive winds and torrential rains associated with hurricanes and cyclones. The Waimea Elementary School located in Waimea Town is the designated Emergency Evacuation Center for this area of the island.

Potential Impacts and Mitigation Measures

The project will not exacerbate any hazard conditions. The potential impact of destructive winds and torrential rainfall of tropical hurricane and cyclones on structures within the project will be mitigated by compliance with the Building Code adopted by the County of Hawai'i. All structures will be constructed for protection from earthquakes and tropical hurricanes and cyclones in accordance with the requirements of the County.

4.1.6 Underground Injection Control

The project is located above the underground injection control (UIC) line which is located at in the vicinity of Kawaihae Road.

Potential Impacts and Mitigative Measures

The wastewater disposal system is planned to utilize backfields in accordance with all DOH rules. The design and construction plans will be submitted to the Department of Health for review and approval.

4.1.7 Flora and Fauna

The predominant vegetation consists of introduced species. There are however, two koa trees (*Acacia koa*) and a koai'e tree (*Acacia koaia*) which are planned to be integrated into the overall landscaping of the Preschool. Other existing upper story vegetation consists of ironwoods, kiawe, and other introduced species. The understory consists of kikuyu grass and other herbaceous weed species.

No particularly unique or special habitat features essential to native wildlife were discovered on the site. An array of introduced birds commonly found in Waimea are present including the white eye, zebra dove, spotted dove, cardinal, English sparrow, house finch, common mynah, chestnut mannikin, nutmeg mannikin, egret, barú owl, and shama thrush.

Potential Impacts and Mitigation Measures

The proposed use of the parcel should not have a significant negative impact on the botanical or wildlife resources. The major trees including koa and koai'e trees and ironwoods (which are outside of the building area) will be retained. The vegetation at the site is dominated by introduced species. Introduced or exotic species are all those plants brought to the islands by humans, intentionally or accidentally, after western contact, that is, Cook's arrival in 1778. While the short-term construction activities would likely disrupt the introduced birds that utilize

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the property, the surrounding rural landscape would more than adequately absorb the displaced birds until the end of construction.

4.1.8 Wetlands and Stream Resources

Adjacent to the project site, creating the western boundary of the property is the Lanimaumau Stream. Although Lanimaumau Stream is designated as a perennial stream on the USGS Kamuela topographic quad map, its flow has been diverted at a location mauka of the DHHL property. Lanimaumau is presently an intermittent stream and is not reported to have any substantial aquatic resources (Hawai'i Stream Assessment 1990).

Whereas, wetland conditions may persist within the Lanimaumau Stream channel from runoff of the immediately adjacent areas, the top of the streambank within the Preschool site is overgrown with plant species which are not suited to wetland conditions.

Potential Impacts and Mitigation Measures

The Preschool site plan (see Figure 5) does not impact the adjacent stream. During the construction period, measures will be taken to prevent silt from entering Lanimaumau stream.

4.2 HUMAN ENVIRONMENT

4.2.1 Archaeological and Historic Resources

The site was previously utilized as part of a drainage system and disturbed for agricultural activities. It is, therefore, unlikely that any archaeological sites remain on the property.

Potential Impacts and Mitigative Measures

Activities associated with prior agriculture would have destroyed any historic sites that might have been present. Because it is highly unlikely that there are any historic sites at the location, it is anticipated that this project will have "no effect" on historic sites. However, in the event that any cultural or human remains are uncovered during site grading, construction will be halted and the State Historic Preservation Division will be immediately notified.

4.2.2 Traffic and Circulation

A traffic study to assess the impact of the Preschool on Māmalahoa Highway has been completed by Randall S. Okaneku, P.E. and is attached as Appendix B.

The project site is located on the north side of Māmalahoa Highway, about 1.4 miles east of Kamāmalu Street. Access is provided by two driveways on Māmalahoa Highway. The existing driveways are spaced about 450 feet apart and connect to a loop roadway within the DHHL site. The existing DHHL site contains 38 parking stalls.

Existing Roadway Conditions

Māmalahoa Highway is a two-lane, two-way arterial highway, which provides access between

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East and West Hawai'i. Exclusive turning lanes do not exist on Māmalahoa Highway at the site access driveways. The west driveway is located on a tangent section of the highway. The east driveway is located just west of a horizontal curve on Māmalahoa Driveway. The posted speed limit on Māmalahoa Highway fronting the DHHL property is 45 miles per hour (mph). The highway speed limit reduces to 35 mph between the project site and Waimea Town.

Existing Traffic

According to data collected at a station about 1/4 mile from the Preschool site, by the State Department of Transportation, Māmalahoa Highway carried 10,879 vehicles per day, total for both directions. The AM peak hour of traffic occurred between 6:45 AM and 7:45 AM, with the highway carrying a total of 959 vehicles per hour (vph), 690 vph westbound and 268 vph eastbound. The PM peak hour of traffic occurred between 4:15 PM and 5:15 PM, with the highway carrying a total of 884 vph, 311 vph westbound and 573 vph eastbound. During the afternoon peak hour of Preschool traffic (2:30 PM to 3:30 PM), Māmalahoa Highway carried 837 vph, 350 vph westbound and 487 vph eastbound.

Site-Generated Traffic

Based on the estimated enrollment of 80 students, the Waimea Preschool is expected to generate a total of 66 vph (to be updated) during the AM peak hour of traffic - 35 vph entering and 31 vph exiting the site. During the PM peak hour of traffic, Preschool is again expected to generate 68 vph - 32 vph entering and 36 vph exiting the site.

Findings

The traffic volumes, generated during the peak hours of traffic, represent about 7-8 percent of the existing AM and PM peak hour traffic volumes on Māmalahoa Highway. The peak flows can occur during 30 minute periods before classes start and after school ends. The existing Pūnana Leo preschool operates under a different schedule from the Kamehameha Schools Preschool, starting a half hour earlier and ending an hour later, therefore the traffic generated by the two preschools are not expected to conflict with one another.

Potential Impacts and Mitigation Measures

Access to the various uses on the DHHL property, including the proposed Preschool, is planned to continue at the two looped driveways at Māmalahoa Highway. As part of the Preschool improvements, however, the west driveway will be relocated approximately 70 feet to the west to a new location presently occupied by lawn. This relocation will remove the driveway from the Preschool site and thus, allow a more buildable and safer site. This realignment will also improve the Pūnana Leo Hawaiian language immersion school through the construction of a new gravel driveway.

Prior to the plan review phase for the relocation of the west access driveway, the applicant will consult with the Department of Public Works to determine the need for and requirement of a left-hand turn lane into the Preschool site on eastbound Māmalahoa Highway. In the event that a left-hand turn lane is warranted, its design and construction will affect the County's highway right-of way and possibly the Lanimaumau Stream culvert.

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The planned Preschool parking lot consisting of 23 new stalls should be adequate except during special events at the Preschool or other concurrent events held at Kūhiō Hale and/or Pūnana Leo. Overflow parking can be accommodated on the DHHL front lawn.

4.2.3 Air Quality and Noise

The lack of significant stationary sources of man-made air pollutants and the regular trade winds in the project area contribute towards the air quality of the project area that meets all applicable Federal and State standards.

The existing noise environment of the proposed site is dominated by the natural sounds of wind moving through the vegetation and sound of the wildlife (birds) in the area.

Potential Impacts and Mitigation Measures

Construction of the proposed project will not significantly impact air quality. Vehicular emissions will increase from construction equipment during the short-term construction period. However, State and Federal air quality standards will not be exceeded and no significant adverse impacts are anticipated.

Mitigation measures available to minimize air quality impacts include dust control measures such as frequent watering during construction and rapid establishment of plant materials once grading is completed.

During the construction period, the use of construction equipment is expected to increase the noise levels on the site. Proper mitigating measures (such as limiting construction to daylight hours) will be employed to minimize the noise impacts. All work will be monitored to comply with State of Hawai'i Department of Health noise limits.

4.2.4 Visual Resources

Waimea is famous for its verdant pastoral character and scenic values. The project area is surrounded by a rural landscape that includes the 3,517 feet high Pu'u Kakanihia, a grassed cinder cone located offsite to the northwest of the DHHL property. The site is adjacent to Māmalahoa Highway, and thus, is visible especially to approaching traffic from the east. Photographs of the property and from Māmalahoa Highway are shown in Figure 15. No sites or vistas of natural and scenic beauty, as listed in the County General Plan, are present or visible from the project site.

Potential Impacts and Mitigation Measures

The Preschool is designed as three single story buildings with rooflines that will blend into the overall character of Waimea and therefore, no impacts to existing scenic views or scenic resources are anticipated as a result of the proposed development. Therefore, mitigation measures are not warranted.



Photograph 1: *Panoramic view of the DHHL Kuhio Hale property.* The Kamehameha Schools Waimea Preschool site is located to the left of the [dark gray] roof), Kuhio Hale which houses the DHHL offices and community center (dark gray roof), Vehicle storage garage (flat roof to the left), and the liv



Photograph 2: *View of the Kamehameha Schools Waimea Preschool site from the Kuhio Hale parking lot.* The two-acre lot is shown against the [background]. A koa tree near the Mamalahoa Highway will be retained, as appropriate.



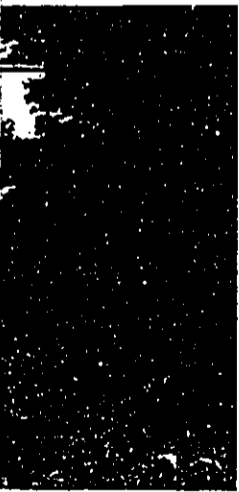
Photograph 3: *View of the Waimea Preschool property and Lanimaumau Stream/culvert at Mamalahoa Highway from the adjacent property to the south.* Lanimaumau Stream is an intermittent stream which is essentially dry since its mauka flows have been diverted to the Puukapu Watershed. A concrete channel located at the northeast boundary of the DHHL property.



to the left of the photograph. Existing structures on the property include: Punana Leo o Waimea immersion preschool (white building on the left), and the livestock scale house (landscaped area in front of Kuhio Hale). Mamalahoa Highway is in the foreground.



shown against the backdrop of Puu Kakabihia. Large trees on the site, including the



cent property to the Puukapu Watershed

FIGURE 15
Project Site Photographs

KAMEHAMEHA SCHOOLS
WAIMEA PRESCHOOL



4.2.5 Social and Employment Characteristics

The native Hawaiian community in Waimea is presently unserved by the Kamehameha Schools Preschool Program. However, other preschool programs are available including the Pūnana Leo O Waimea Hawaiian language immersion preschool.

Potential Impacts and Mitigation Measures

Population. The Kamehameha Schools Waimea Preschool will provide services to children and families of Hawaiian ancestry and will not cause a change in population.

Socio-economic. The Waimea community is comprised of citizens who are committed to improving the quality of life in their community. An approach to child centered services which are culturally sensitive will benefit the target families and the broader community as well.

Employment. The construction of the project will provide short-term employment opportunities. Positive economic impacts from construction related employment will result from the proposed project. The Preschool will generate a few long-term jobs to staff the school.

Impact to Pūnana Leo O Waimea. The Pūnana Leo program is an immersion language program which provides preschool through high school education with instruction wholly in the Hawaiian language. This requires the commitment of the child's family with parents also required to participate in weekly Hawaiian language classes. Pūnana Leo receives federal grants through the Native Americans Act and charges tuition for enrollment.

The mission of the Kamehameha Schools program is to provide early education to 3 and 4-year old children of Hawaiian descent. The program recognizes that the early years of a child's life are crucial to success in school and in society and that skill in oral and written communication is necessary for success in school, the program emphasizes language and literacy. Instruction is in English.

While the mission of the Kamehameha Schools and Pūnana Leo programs is fundamentally the same - to educate children of Hawaiian descent - the Kamehameha School's proposed new preschool, with its instruction in English is not expected to conflict with the operation of Pūnana Leo.

4.2.6 Economic Factors/Government Revenues

Currently the project site generates no income but it requires little in the way of government services.

Potential Impacts and Mitigation Measures

The State Department of Hawaiian Home Lands will commit two acres towards the project and Kamehameha Schools will expend internal funds to construct the project. Sales taxes on building materials will be generated during construction. Also, those employed during construction will generate income taxes.

4.2.7 Character of the Community

The pastoral character of Waimea is reflected in the open rural spaces and in the architecture of the towns public buildings.

Potential Impacts and Mitigation Measures

The new Preschool is designed to conform to the character of the community. The clustering of service providers to native Hawaiians and the co-location of the service agencies in proximity to each other will more efficiently allow delivery of services.

4.2.8 Infrastructure

Infrastructure improvements necessary for the project will be provided by connecting to existing easements.

Water System. Existing County water infrastructure include a 12-inch water main within a Māmalahoa Highway easement and a 6-inch waterline within the onsite west access driveway.

Sewer System. The Waimea area is not serviced by a County wastewater collection and treatment system. Individual wastewater disposal systems such as septic tanks and cesspools are utilized. Presently, Kūhiō Hale is served by a cesspool located on the Waimea Preschool site. Pūnana Leo is served by a separate septic system.

Potential Impacts and Mitigation Measures

Water System. The relocation of the west access driveway will require relocating the 6-inch waterline which presently serves the DHHL property. Kamehameha Schools will redesign and construct a replacement waterline within the realigned driveway in accordance with County Department of Water Supply requirements. In addition, a new line to serve the Preschool is planned to be hooked up to the DHHL line. An allocation for water use will be requested from the Department of Water Supply.

Sewer System. The development of the Waimea Preschool will require closure of the existing cesspool. Therefore, a replacement septic system to serve Kūhiō Hale will be constructed on the DHHL retained lands as shown on Figure 7. This system will exclusively serve Kūhiō Hale. Its construction will be shared by DHHL and Kamehameha Schools.

The subject Waimea Preschool is proposing three separate systems to serve each building. The project's wastewater will be processed through a septic tank and disposed of by means of a leach field. The plans for the proposed septic tank system will conform to the applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems". Plans will be provided to the DOH's Wastewater Branch for review and approval.

4.2.9 Solid Waste Disposal

It is anticipated that most of the solid waste generated from the proposed facility will consist of

KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
Final Environmental Assessment

general office products (i.e., paper, paper products, plastic, etc.). Waste will be separated and taken to appropriate facilities of the County Refuse Division.

The project site consists of trees, pasture grass and weeds. To the extent practicable large trees will be retained and integrated into the landscape plans. Trees that require removal will be recycled as firewood, chipped, and /or disposed at a County landfill facility. In addition, the developer will ensure that all solid waste generated during the project's construction will be directed to permitted solid waste disposal, processing, or recycling facilities.

4.2.10 Public Services

4.2.10.1 Fire Protection

The project area is served by the Waimea Fire Station, located approximately four miles from the project site. The Waimea Fire Station is equipped with an ambulance and staffed with approximately 12 firefighter and EMT's divided into shifts providing 24-hour coverage.

Potential Impacts and Mitigative Measures

There will be an occasional and unavoidable demand for fire protection services associated with the project. The applicant will coordinate with the Fire Department and the Department of Water Supply prior to the project implementation and phasing to permit adequate planning and advance notice of project completion.

4.2.10.2 Police Protection

The project area is serviced by the Waimea Police Station, located approximately four miles from the project site. The Waimea Police Station is staffed with approximately 16 police officers divided into shifts providing 24-hour coverage.

Potential Impacts and Mitigative Measures

There may be an occasional and unavoidable demand for police protection services associated with the project, however, it is anticipated that the existing police service will not be adversely affected by the proposed development.

4.2.10.3 Health Care Services

Health Care in the Waimea area is provided primarily by the Lucy Henriques Medical Center and the North Kohala Medical Center. Two State hospitals, Kohala Hospital and Honoka'a Hospital, operate in Hāwī and Honoka'a. Both hospitals allow for certain types of major surgery, while the Lucy Henriques Medical Center has only emergency and out-patient facilities.

Potential Impacts and Mitigative Measures

There will be an unavoidable and occasional need for emergency health care services. However, the proposed project will not have a long-term adverse impact on emergency medical services.

KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
Final Environmental Assessment

4.2.10.4 Schools

Three schools serve Waimea: Waimea Elementary and Intermediate School (grades K-9), Parker School (a private school with grades 7-12), and Hawai'i Preparatory Academy (a private school with grades K-12). Waimea students attending public school grades 9-12 are bussed to the Honoka'a High School.

Potential Impacts and Mitigative Measures

The proposed project will not generate new residents or introduce new school-aged children to the area. Therefore, no demands will be placed on area DOE facilities.

4.2.10.5 Recreational Facilities

Waimea has two county parks that total 10.5 acres. In addition, the Courthouse and "Church Row" have three acres of open space owned by the county.

Potential Impacts and Mitigative Measures

The proposed projects will not generate new residents to the area. Therefore, no additional demand will be placed on area parks.

5.0

Alternatives to the Proposed Action

5.0 ALTERNATIVES TO THE PROPOSED ACTION

In compliance with the provisions of Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules, Section 11-200-17(f), the alternatives which could attain the objectives of the action have been evaluated.

5.1 NO ACTION ALTERNATIVE

The no action alternative will not accomplish the desired goal of expanding the Kamehameha Schools Preschool Program to better serve qualified families in the Waimea community who are also DHHL beneficiaries. The families of the Waimea Hawaiian Homes Association and other native Hawaiians who desire early education for their children would not be able to benefit from fundamental education that could positively affect their children's future. Waimea residents who have been waiting for affordable Preschool opportunity through the Kamehameha Schools program would continue to be unserved.

5.2 ALTERNATIVE DESIGNS

Several design iterations have been prepared by the architect to achieve the best and most efficient plan for the Preschool. The proposed plan is the result of the design process and represents the best alternative to accomplish the objectives of the School's mission in providing early education.

5.3 ALTERNATIVE LOCATIONS

While there may be alternative locations within Waimea, the benefit of a Kamehameha Schools Preschool on the DHHL property site would allow the State agency serving native Hawaiians and Kamehameha Schools, a major ali'i trust organization, to co-locate to more efficiently serve the target population.

Other Hawaiian Home Lands may be available, however, more than half of the acreage is undevelopable Forest Reserve lands. While any location within DHHL lands is a possible alternative site, the proximity of the proposed Waimea Preschool is centrally located to the existing and proposed Hawaiian Homestead residential developments.

5.4 ALTERNATIVE OF POSTPONING THE ACTION

To further delay the development of a Kamehameha Schools preschool for the Waimea community would have similar results as the "no action" alternative and children would be deprived of early education which is vital to their development.

6.0

**Determination, Findings, and Reasons
for Supporting Determination**

6.0 DETERMINATION, FINDINGS, AND REASONS FOR SUPPORTING DETERMINATION

To determine whether the proposed action may have a significant impact on the environment, every phase and expected consequences, both primary and secondary, and the cumulative as well as short- and long-term effects have been evaluated. Based on the studies performed and research evaluated, a finding of no significant impact is anticipated as summarized in this section.

6.1 SIGNIFICANCE CRITERIA

According to the Department of Health Rules (11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one of the following criteria:

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

The site was previously used for agricultural purposes, and is thus, disturbed from its natural condition. Several specimen koa trees worthy of saving are being incorporated into the project site plan. Other large trees (e.g. ironwoods) which are not in the building envelop will also remain and be left in an open space buffer. There are no known cultural sites on the property.

- (2) **Curtails the range of beneficial uses of the environment;**

The two-acre site is vacant of any improved uses and is surrounded by urban and agricultural uses. Whereas, the Lanimaumau Stream previously provided an important drainage function, the diversion of its streamflow into the Pu'ukapu Watershed Project concrete channel located to the northeast of the DHHL property, now allows other uses on the subject site. The development of the Preschool would therefore, not curtail the beneficial uses of the environment.

Indeed, the new school will serve to enhance the beneficial uses of the environment by providing opportunities for early educational development in a landscaped campus environment that will integrate the native plantings and trees common to the area as part of the landscape plan.

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

The proposed project will not conflict with the environmental policies set forth in the State Plan and Chapter 344, Hawai'i Revised Statutes.

KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
Final Environmental Assessment

(4) Substantially affects the economic or social welfare of the community or state;

The Waimea Preschool will have a positive impact of the social and economic environment by providing some short-term construction related jobs and long-term educational related employment, and by enhancing the educational opportunities for native Hawaiian children.

(5) Substantially affects public health;

The project will not have a significant impact on air and noise quality levels and will not generate pollutants that would impact surrounding lands or the region.

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

The project will not induce future development or population changes since it does not provide excess infrastructure capacity, attract visitors or new residents, or generate significant new employment opportunities. However, the number of qualified families with young children who will benefit from the new Preschool will significantly increase.

The infrastructure demands on roads, and the water and drainage systems are minimal and can be accommodated by the existing systems. The existing cesspool will be closed and upgraded to separate septic/leach field systems to serve the DHHL office and Kūhiō Hale and the new Preschool.

In addition, the construction and operation of the Waimea Preschool will generate new sources of direct and indirect revenue for individuals, the County of Hawai'i, and the State of Hawai'i by providing construction employment opportunities, new permanent employment opportunities at the Preschool. Indirect employment in a wide range of service-related industries will also be created from construction and the provision of services during project development.

(7) Involves a substantial degradation of environmental quality;

The proposed development will utilize disturbed vacant land and is not expected to degrade environmental quality on-site or in the surrounding neighborhood. With development of the proposed project, plant communities are expected to improve through a program of landscaping which will utilize native plantings in greater abundance on the site. Appropriate best management practices will provide safeguards for protection of water quality during the short-term construction period.

(8) Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;

The long-range potential development for the Preschool and its potential impacts on the environment has been considered in this assessment.

KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
Final Environmental Assessment

(9) Substantially affects a rare, threatened or endangered species or its habitat;

The site is not a known habitat for endangered or threatened flora or fauna species. The koai'e tree, which is not a threatened or endangered species, will be preserved and integrated into the landscaping of the new campus.

(10) Detrimentially affects air or water quality or ambient noise levels;

The proposed project will not include any significant sources of air emissions or noise levels that would violate existing Federal or State standards. Wastewater flows will be disposed via an approved sewerage disposal system. The drainage system will be designed in compliance with County and State regulations to protect the groundwater quality and not adversely impact downstream properties. Minimal impacts on air quality and noise are anticipated during construction, but will be limited by normal construction practices (i.e., mufflers, water wagons, construction during daylight hours only, etc.). Best Management Plans (BMPs) will be implemented for water quality protection to the extent practicable.

(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters.

Development of the property is compatible with the above criteria since there are not environmentally sensitive areas associated with the project and the physical character of the site has been previously disturbed. Also, the project is in an upcountry location and will not affect coastal waters.

(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies;

The project site is not listed in the County General Plan or other State plans or studies as including a site or vista of natural beauty. Additionally, because the site is relatively level and obscured from the surrounding properties by the onsite and surrounding vegetation, existing views of the site will be largely unaffected by the proposed campus development.

(13) Requires substantial energy consumption.

The construction and operation of the new Preschool will not require substantially more energy consumption than would be required for projects of a similar type and scale. Energy conservation techniques, such as use of day lighting and energy efficient lighting, waste heat recovery with centralized air-conditioning, and the use of proper building orientation and landscaping, where practical, to reduce heat loads, will be evaluated as part of the facility planning and design of the proposed facilities.

6.2 DETERMINATION

In accordance with Chapter 343, Hawai'i Revised Statutes, this Environmental Assessment has examined the environmental and technical aspects of the proposed project. In considering the significance of potential environmental effects, the sum of effects on the quality of the environment were considered and the overall and cumulative effect of the action were evaluated. Every phase of the proposed action, the expected consequences, both primary and secondary, and the cumulative as well as the short- and long-term effects of the action were considered.

As result of these considerations, it is determined that the proposed action will not significantly impact the environment, based on the significance criteria listed in 11-200-12 of the Environmental Impact Statement Rules and addressed below. Therefore, a "Finding of No Significant Impact" (FONSI) is recommended for this project.

7.0

Comments and Responses

7.0 COMMENTS AND RESPONSES

Responses which were received during the review of the Draft EA resulted in the following responses from governmental agencies.

7.1 COMMENTS RECEIVED

County of Hawaii Agencies

Department of Public Works
Department of Water Supply
Police Department

State of Hawaii Agencies

Department of Business, Economic Development, & Tourism - Energy, Resources & Technology
Division
Department of Education
Office of Hawaiian Affairs

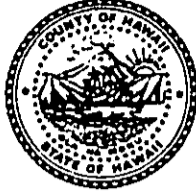
Federal Agencies

Department of the Army

7.2 DRAFT EA COMMENT LETTERS AND THE APPLICANT'S RESPONSES

The comment letters responding to the Draft EA and the Applicant's responses are included in this section.

Stephen K. Yamashiro
Mayor



Jiro A. Sumada
Deputy Chief Engineer

County of Hawaii
DEPARTMENT OF PUBLIC WORKS
25 Aupuni Street, Room 202 • Hilo, Hawaii 96720-4252
(808) 961-8321 • Fax (808) 961-8630

November 6, 2000

Ms. Yukie Ohashi
PBR Hawaii
101 Aupuni Street
Hilo, HI 96720

Subject: Draft Environmental Assessment
Kamehameha Schools Waimea Preschool
TMK: 6-4-1: 59

We reviewed the subject report and have the following comments:

- All development generated runoff shall be disposed of on-site and shall not be directed toward any adjacent properties.
- Solid waste management shall conform to the rules and regulations of the DPW, Solid Waste Division. The developer shall prepare and submit a solid waste management plan to the DPW.
- A left-hand turn lane on Mamalahoa Highway is necessary. Plans shall be prepared by a licensed Civil Engineer and submitted for review prior to the issuance of a building permit or driveway permit. The improvements shall be completed at no cost to the County as a condition for granting a certificate of occupancy.

If you have any questions, please contact Kiran Emler of our Kona office at 327-3530.

A handwritten signature in black ink, appearing to read "Galen Kuba".

Galen Kuba, Division Chief
Engineering Division

KE
c: OEQC
DHHL- Ms. Linda Chin
Eng.Div.-Hilo
Traffic Div.-Hilo

RECEIVED

NOV 08 2000

PBR HAWAII
PHILLIPS BRANDT REDDICK

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

Stephen K. Yamashiro
Mayor



Jiro A. Sumada
Deputy Chief Engineer

County of Hawaii
DEPARTMENT OF PUBLIC WORKS
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November 6, 2000

Ms. Yukie Ohashi
PBR Hawaii
101 Aupuni Street
Hilo, HI 96720

Subject: Draft Environmental Assessment
Kamehameha Schools Waimea Preschool
TMK: 6-4-1: 59

We reviewed the subject report and have the following comments:

- All development generated runoff shall be disposed of on-site and shall not be directed toward any adjacent properties.
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- A left-hand turn lane on Mamalahoa Highway is necessary. Plans shall be prepared by a licensed Civil Engineer and submitted for review prior to the issuance of a building permit or driveway permit. The improvements shall be completed at no cost to the County as a condition for granting a certificate of occupancy.

If you have any questions, please contact Kiran Emler of our Kona office at 327-3530.

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Galen Kuba, Division Chief
Engineering Division

KE
c: OEQC
DHHL- Ms. Linda Chin
Eng.Div.-Hilo
Traffic Div.-Hilo

RECEIVED

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PBR HAWAII
PHILLIPS BRANDT REDDICK



LAND PLANNING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL STUDIES

November 10, 2000

Mr. Galen Kuba, Division Chief
Engineering Division
County of Hawaii
Department of Public Works
25 Aupuni Street, Room 202
Hilo, Hawaii 96720-4252

RE: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Kuba:

On behalf of Kamehameha Schools and the Department of Hawaiian Home Lands we thank you for your letter dated November 6, 2000 concerning the Waimea Preschool Draft EA. We offer the following responses to your comments:

1. All development generated runoff is planned to be disposed of on-site into dry wells and will not be directed toward any adjacent properties.
2. A solid waste management plan which conforms to the rules and regulations of the Department of Public Works, Solid Waste Division will be prepared for submittal to DPW.
3. Prior to the plan review phase of the relocation of the west access driveway to Kuhio Hale, Kamehameha Schools will work with the Department of Public Works to determine the need for, and requirement of, a left-hand turn lane on eastbound Mamalahoa Highway.

Wm. Frank Brandt • Thomas S. Witten • R. Stan Duncan • Russell Y. J. Chung

HONOLULU OFFICE

1001 BISHOP STREET, PACIFIC TOWER, SUITE 650, HONOLULU, HAWAII 96813-3429
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TELEPHONE: (808) 961-3333 FAX: (808) 961-4989

Mr. Galen Kuba

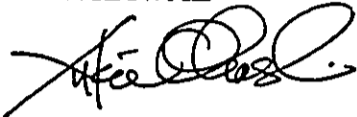
SUBJECT: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL

Page 2

We appreciate your participation and comments on the Draft EA.

Sincerely yours,

PBR HAWAII

A handwritten signature in black ink, appearing to read "Yukie Ohashi", written over the typed name.

Yukie Ohashi
Project Manager

c: Allison Yue, Kamehameha Schools
Linda Chinn, Department of Hawaiian Home Lands
Randall Okaneku, Traffic Management Consultant



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

25 AUPUNI STREET • HILO, HAWAII 96720
TELEPHONE (808) 961-8660 • FAX (808) 961-8657

November 6, 2000

Ms. Yukie Ohashi
PBR Hawaii
101 Aupuni Street
Hilo Lagoon Center, Suite 310
Hilo, HI 96720-4276

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NOV 09 2000

PBR HAWAII
PHILLIPS BRANDT REDDICK

**DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
SOUTH KOHALA, ISLAND OF HAWAII
TAX MAP KEY: 6-4-001:POR. 059**

We have reviewed the subject document and our comments follow.

Water availability conditions for the Waimea water system are such that there is water for the proposed project. Water will be from either the 6-inch waterline or 12-inch waterline in the Hawaii Belt Road, which fronts the subject parcel.

Before the Department can issue a water commitment, the applicant should submit the following:

1. The anticipated maximum daily water usage as recommended by a registered engineer. The Department reserves the right to make a final determination.
2. A water commitment deposit must be remitted in accordance with the Department's *Water Commitment Guidelines Policy*, a copy of which is attached to the applicant's copy of this memorandum. The applicant will be informed of the deposit amount upon final determination of the submittal required in Item 1.

Upon completion of item Nos. 1 and 2 above, an official water commitment will be effected in accordance with the *Water Commitment Guidelines Policy*. The commitment will be in writing with specific conditions and effective dates stated.

The applicant needs to keep in mind that this letter shall not be construed as a water commitment. In other words, unless a water commitment is officially effected, water availability is subject to change depending on the water situation.

If you have any questions, please contact our Water Resources and Planning Branch at 961-8665.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

BCM:gms

copy - (w/enc.) Department of Hawaiian Home Lands
(w/enc.) Kamehameha Schools
(w/o enc.) Office of Environmental Quality Control
(w/o enc.) Planning Department

... *Water brings progress...*



LAND PLANNING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL STUDIES

November 10, 2000

Mr. Milton D. Pavao, P.E., Manager
Department of Water Supply
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

RE: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Pavao:

On behalf of Kamehameha Schools and the Department of Hawaiian Home Lands we thank you for your letter dated November 6, 2000 concerning the Waimea Preschool Draft EA. We offer the following responses to your comments:

1. We acknowledge your statement regarding the availability of water from the County's water system from either the 6-inch waterline or 12-inch waterline within the Hawaii Belt Road (Mamalahoa Highway) which fronts the project site.
2. Prior to receiving a water commitment, the applicant, Kamehameha Schools, will submit the following to the Department of Water Supply:
 - A) The registered engineer's calculation of the anticipated maximum daily water usage, and
 - B) A water commitment deposit.

The applicant understands that the water commitment is contingent on the fulfillment of the above submittals after which the Department can make its official water commitment.

Wm. Frank Brandt • Thomas S. Witten • R. Stan Duncan • Russell Y. J. Chung

HONOLULU OFFICE

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Mr. Milton Pavao

SUBJECT: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL

Page 2

We appreciate your participation and comments on the Draft EA.

Sincerely yours,

PBR HAWAII



Yukie Ohashi
Project Manager

c: Allison Yue, Kamehameha Schools
Linda Chinn, Department of Hawaiian Home Lands

Stephen K. Yamashiro
Mayor



James S. Correa
Deputy Police Chief

County of Hawaii
POLICE DEPARTMENT

349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 935-3311 • Fax (808) 961-2702

October 25, 2000

Ms. Yukie Ohashi
PBR Hawaii
101 Aupuni Street, Suite 310
Hilo, HI 96720-4276

Dear Ms. Ohashi:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
SOUTH KOHALA, HAWAII
TMK: 6-4-01:59(PORTION)

Staff has reviewed the above-referenced Draft Environmental Assessment for the proposed project and has the following comments to offer:


The findings were presented to the North Hawaii Traffic Safety Committee who concurred with our concerns relating to traffic conditions. Upon full operation of the school, the additional traffic will place a far greater demand on the present road infrastructure. The potential traffic hazards can be mitigated with proper planning. The following were the concerns:

1. Route 19, Mamalahoa Highway, is the main road through Waimea. The speed limit is 45 MPH and has been identified as one of the potential traffic hazards. We are in agreement that the recommended change of 35MPH needs to be implemented.
2. A left turn lane into the school for eastbound traffic needs to be constructed to allow through traffic, prevent accidents, and minimize traffic congestion.
3. The driveway location for the ingress and egress should be taken into consideration, as the line of sight for the westbound traffic is hampered by a large curve just east of the existing driveway.

Thank you for the opportunity to comment.

Sincerely,

JAMES S. CORREA
DEPUTY POLICE CHIEF
ACTING POLICE CHIEF


THOMAS J. HICKCOX
ASSISTANT POLICE CHIEF
FIELD OPERATIONS BUREAU

MH:lk

cc: Office of Environmental Quality Control
Department of Hawaiian Home Lands



LAND PLANNING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL STUDIES

November 10, 2000

Mr. James S. Correa, Deputy Police Chief and Acting Police Chief
Mr. Thomas J. Hickcox, Assistant Police Chief, Field Operations Bureau
County of Hawaii
Police Department
349 Kapiolani Street
Hilo, Hawaii 96720-3998

RE: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Correa and Mr. Hickcox:

On behalf of Kamehameha Schools and the Department of Hawaiian Home Lands we thank you for your letter dated October 25, 2000 concerning the Waimea Preschool Draft EA. We have consulted with the traffic engineering consultant, Traffic Management Consultant, and offer the following responses to your comments:

1. Determination of the posted speed limit should be made by the County of Hawaii, Department of Public Works. The traffic assessment does not actually recommend that the posted speed limit should be lowered. It identifies potential access impacts at the existing east access driveway to Kuhio Hale with regard to the current speed limit of 45 mph. As such, changing the posted speed limit would require a more comprehensive analysis of the highway and traffic conditions by the County.
2. Prior to the plan review phase of the relocation of the west access driveway to Kuhio Hale, Kamehameha Schools will work with the Department of Public Works to determine the need for, and requirement of, a left-hand turn lane on eastbound Mamalahoa Highway.
3. The sight distance for westbound traffic to the west access driveway to Kuhio Hale appears to be adequate. However, the available sight distances would be verified during the design phase of the driveway relocation, and submitted to the Department of Public Works for their review and comment.

Wm. Frank Brandt • Thomas S. Witten • R. Stan Duncan • Russell Y. J. Chung

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HILO OFFICE

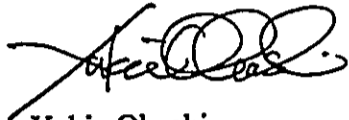
101 AUPUNI STREET, HILO LAGOON CENTER, SUITE 310, HILO, HAWAII 96720-4276
TELEPHONE: (808) 961-3333 FAX: (808) 961-8889

Mr. James S. Correa
Mr. Thomas J. Hickcox
SUBJECT: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
Page 2

We appreciate your participation and comments on the Draft EA.

Sincerely yours,

PBR HAWAII



Yukie Ohashi
Project Manager

c: Allison Yue, Kamehameha Schools
Linda Chinn, Department of Hawaiian Home Lands
Randall Okaneku, Traffic Management Consultant



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

BENJAMIN J. CAYETANO
GOVERNOR
SEJI F. NAYA, Ph.D.
DIRECTOR
SHARON S. NARIMATSU
DEPUTY DIRECTOR
DAVID W. BLANE
DIRECTOR, OFFICE OF PLANNING

ENERGY, RESOURCES & TECHNOLOGY DIVISION

235 South Beretania Street, State Office Tower, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt/ert

Telephone: (808) 587-3807
Fax: (808) 586-2536

November 6, 2000

Ms. Yukie Ohashi
PBR Hawaii
Hilo Lagoon Center
101 Aupuni St., Ste 310
Hilo, HI 96720-4276

Subject: Draft Environmental Assessment for Kamehameha Schools Waimea Preschool
Hawaii: South Kohala: TMK: 6-4-01:59 (portion)

Thank you for the opportunity to provide comments on the subject project. We would like to call your attention to: (1) State energy conservation goals, (2) energy saving design practices and technologies, and (3) recycling and recycled-content products.

1. State energy conservation goals. Project buildings, activities, and site grounds should be designed with energy saving considerations. The mandate for such consideration is found in Chapter 344, HRS ("State Environmental Policy") and Chapter 226 ("Hawaii State Planning Act"). In particular, we would like to call to your attention HRS 226 18(c)(4) which includes a State objective of promoting all cost-effective energy conservation through adoption of energy-efficient practices and technologies.

The County of Hawaii has adopted an Energy Code which we recommend you consult early on in your project. Hawaii Electric Light Co., Inc., may also have demand-side management programs that offer rebates for installation of energy efficient technologies.

2. Energy saving design practices and technologies. We recommend that you specifically address energy efficient design practices and technologies in this project. Some of the methods and technologies that could be considered during the design phase of the project include:

- Use of natural ventilation to increase comfort of occupants; maximum use of day lighting; and
- Use of high efficiency compact fluorescent lighting.

3. Recycling and recycled-content products.

- Develop a job-site recycling plan for the construction phase of the project and recycle as much construction and demolition waste as possible;
- Incorporate provisions for recycling into the built project – a collection system and space for bins for recyclables; and
- Specify and use products with recycled content such as: steel, concrete aggregate fill, drywall, carpet and glass tile.

Ms. Yukie Ohashi
Page 2
November 6, 2000

We note that your assessment references the *Guidelines for Sustainable Building Design In Hawaii: A planner's checklist* and states that you will be implementing many of the techniques described therein.

Sincerely,



Maurice H. Kaya
Energy, Resources, and Technology
Program Administrator

c: Department of Hawaiian Home Lands
Linda Chinn
Office of Environmental Quality Control



LAND PLANNING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL STUDIES

November 10, 2000

Mr. Maurice H. Kaya, Program Administrator
Energy, Resources, and Technology Division
Department of Business, Economic Development & Tourism
PO Box 2359
Honolulu, Hawaii 96804

RE: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Kaya:

Thank you for your letter dated November 6, 2000 concerning the Waimea Preschool Draft Environmental Assessment. On behalf of Kamehameha Schools and the Department of Hawaiian Home Lands, we offer the following responses to your comments.

1. **State energy conservation goals.** Energy saving considerations will be undertaken in accordance with State of Hawaii requirements and in particular with *Hawaii Revised Statutes* Chapter 226 18(c)(4) and with the County of Hawaii adopted Energy Code.
2. **Energy saving design practices and technologies.** The design of the buildings will consider energy efficient practices and technologies such as the use of natural ventilation, maximum use of daylighting, and the use of high efficiency lighting.
3. **Recycling and recycled-content products.** To the extent practicable, products with recycled content would be considered and construction waste would be recycled. Provisions for recycling to reduce operational solid waste will be undertaken.

We appreciate your participation in the environmental review process.

Sincerely yours,

PBR HAWAII

Yukie Ohashi
Project Manager

Wm. Frank Brandt • Thomas S. Witten • R. Stan Duncan • Russell Y. J. Chung

HONOLULU OFFICE

1001 BISHOP STREET, PACIFIC TOWER, SUITE 650, HONOLULU, HAWAII 96813-3429
TELEPHONE: (808) 521-5631 FAX: (808) 523-1402 E-MAIL: pbrhi@aloha.net

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BENJAMIN J. CAYETANO
GOVERNOR



PAUL G. LeMAHIEU, Ph.D.
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

October 24, 2000

Ms. Yukie Ohashi
PBR Hawaii
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813

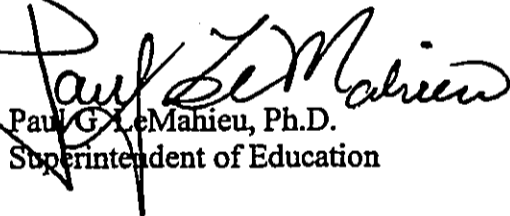
Dear Ms. Ohashi:

Subject: Kamehameha Schools Waimea Preschool – Draft EA

The Department of Education has no comment on the subject draft environmental assessment.

Thank you for the opportunity to respond.

Very truly yours,


Paul G. LeMahieu, Ph.D.
Superintendent of Education

PLeM:hy

cc: P. Yoshioka, DAS
G. Salmonson, OEQC
L. Chin, DHHL

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER



LAND PLANNING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL STUDIES

November 10, 2000

Paul G. LeMahieu, Ph.D.
Superintendent of Education
State of Hawaii
Department of Education
PO Box 2360
Honolulu, Hawaii 96804

RE: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Dear Dr. LeMahieu:

Thank you for your letter dated October 24, 2000 concerning the Waimea Preschool Draft EA. On behalf of Kamehameha Schools and the Department of Hawaiian Home Lands, we thank you for your review of the subject Draft Environmental Assessment.

We appreciate your participation in the environmental assessment review process.

Sincerely yours,

PBR HAWAII

Yukie Ohashi
Project Manager

Wm. Frank Brandt • Thomas S. Witten • R. Stan Duncan • Russell V. J. Chung

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

October 23, 2000

Ms. Yukie Ohashi
PBR Hawaii,
101 Aupuni Street
Hilo Lagoon Center, Suite 310
Hilo, HI 96720-4276

(EIS # 425)

Subject: Draft Environmental Assessment (DEA) for Kamehameha Schools
Waimea Preschool, South Kohala, Hawaii
TMK: 6-4-01:59 (portion)

Dear Ms. Ohashi

Thank you for the opportunity to comment on the above referenced project. According to the DEA, the Preschool site is a 2-acre portion of DHHL property, which will occupy the south-western corner of the 10-acre DHHL parcel. The 2-acre Preschool site is a vacant parcel.

In addition, the DEA states: "The site was previously utilized as part of a drainage system and disturbed for agricultural activities. It is, therefore, unlikely that any archaeological sites remain on the property."

At this time, the Office of Hawaiian Affairs has no comments to the proposed project. If you have any questions, please contact Mark A. Mararagan, Policy Analyst at 594-1945.

Sincerely,

A handwritten signature in black ink, appearing to read "Colin C. Kippen, Jr.".

Colin C. Kippen, Jr.
Deputy Administrator

cc: OHA Board of Trustees
Hilo CAC
Office of Environmental Quality Control



LAND PLANNING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL STUDIES

November 10, 2000

Mr. Colin G. Kippen, Jr.
Deputy Administrator
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

RE: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Kippen:

Thank you for your letter dated October 23, 2000 concerning the Waimea Preschool Draft Environmental Assessment. On behalf of Kamehameha Schools and the Department of Hawaiian Home Lands, we thank you for your review of the subject Draft EA.

We appreciate your participation in the environmental review process.

Sincerely yours,

PBR HAWAII

A handwritten signature in black ink, appearing to read 'Yukie Ohashi', written over a horizontal line.

Yukie Ohashi
Project Manager

Wm. Frank Brandt • Thomas S. Witten • R. Stan Duncan • Russell Y. J. Chung

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

REPLY TO
ATTENTION OF

October 31, 2000

Civil Works Technical Branch

Ms. Yukie Ohashi
PBR Hawaii
101 Aupuni Street, Suite 310
Hilo, Hawaii 96720-4276

Dear Ms. Ohashi:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Kamehameha Schools Waimea Preschool Project, Hawaii (TMK 6-4-1: 59). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, a DA permit is not required at this time.

b. The flood hazard information provided on page 28 of the DEA is correct.

Should you require additional information, please contact Ms. Jessie Dobinchick of my staff at (808) 438-8876.

Sincerely,

James Pennaz

James Pennaz, P.E.
Chief, Civil Works
Technical Branch



LAND PLANNING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL STUDIES

November 10, 2000

Mr. James Pennaz, P.E., Chief
Civil Works Technical Branch
Department of the Army
US Army Engineer District, Honolulu
Ft. Shafter, Hawaii 96858-5440

RE: KAMEHAMEHA SCHOOLS WAIMEA PRESCHOOL
RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Pennaz:

Thank you for your letter dated October 31, 2000 concerning the Waimea Preschool Draft EA. On behalf of Kamehameha Schools and the Department of Hawaiian Home Lands, we thank you for your review of the subject Draft Environmental Assessment.

We appreciate your participation in the environmental review process.

Sincerely yours,

PBR HAWAII

A handwritten signature in black ink, appearing to read 'Yukie Ohashi', written over a horizontal line.

Yukie Ohashi
Project Manager

Wm. Frank Brandt • Thomas S. Witten • R. Stan Duncan • Russell Y. J. Chung

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8.0

References

8.0 REFERENCES

County of Hawai'i, Department of Research and Development. *County of Hawai'i Data Book 1997*. Hilo, Hawai'i July 1998.

Federal Emergency Management Agency, *Flood Insurance Rate Map*, Community Panel Number 155166 0167 C, September 16, 1988.

Heliker, C. *Volcanic and Seismic Hazards on the Island of Hawai'i*. U.S. Geological Survey, 1991.

Kon, M. *Hawai'i County Water Use and Development Plan*. Prepared for the Department of Water Supply, County of Hawai'i, February 1992.

McCall, W. *Soil Classification in Hawai'i*, Cooperative Extension Service, University of Hawai'i, Circular 476, 1975.

State of Hawai'i, Department of Land and Natural Resources. *An Inventory of Basic Water Resources Data: Island of Hawai'i*. Report R34, 1970.

State of Hawai'i, National Park Service. *Hawai'i Stream Assessment: Hawai'i's Streams and their Instream and Riparian Resources*. State of Hawai'i, Draft 1990.

University of Hawai'i, Department of Geography, *Atlas of Hawai'i* (3d. ed). Honolulu: University of Hawai'i Press, 1998.

U.S. Department of Agriculture, Soil Conservation Service. *Soil Survey of Island of Hawai'i*. State of Hawai'i 1973.

County of Hawai'i, *General Plan*, Ordinance No. 89-142 (An Ordinance Adopting the County of Hawai'i General Plan and Repealing Ordinance No. 439, as amended).

Education Functional Plan, (State Plan). Department of Education in accordance with Chapter 226 HRS, 1989.

Hawai'i Administrative Rules, Chapter 11-200, Department of Health, Environmental Impact Statement Rules.

Hawai'i County Code, Chapter 25 (Zoning)

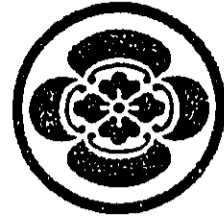
Hawai'i Revised Statues, Chapter 205 (Land Use Commission) (1985 & Supp. 1992).

Hawai'i Revised Statues, Chapter 226 (State Plan) (Supp. 1992)

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Appendix A

Letter Report on Lanimaumau Stream



September 21, 2000.

PBR Hawaii
Hilo Lagoon Centre, Suite 310
101 Aupuni Street
Hilo, Hawaii 96720

ATTENTION: Mrs. Yukie Ohashi, Planner

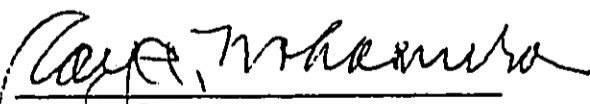
RE: Waimea Preschool for The Kamehameha Schools
Puukapu Homesteads, Waimea, S. Kohala, Island of Hawaii, Hawaii
Tax Map Key: 3rd Div. 6-4-01: por. 59

Reviewed the Architectural Drawing A-1 (Sht. 9 of 43) dated 9/20/00. The plan shows the "AE" Flood Zone per Flood Insurance Rate Map (FIRM) Community Panel Number 155166 0167 C dated September 16, 1988. Also shown on the drawing are the Base Flood surface elevations. Additionally, the proposed Lot 1-A, 2.0 Acres, with metes and bounds are drawn.

The proposed buildings with finish floor elevations of 2855.5 to 2856 feet would be approximately 4 to 5 feet above the adjacent base flood surface elevations and all proposed improvements lie outside the "AE" Flood Zone.

With proper and standard civil engineering practices, the buildings should be safe from flooding.

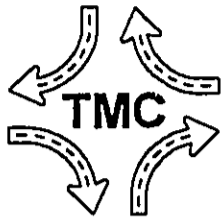
Very Truly Yours,


Ray K. Nakamura

I&A Job No. 99-07

Appendix B

Traffic Assessment



THE TRAFFIC MANAGEMENT CONSULTANT

Randall S. Okaneku, P.E., P.T.O.E., Principal • 1188 Bishop St., Suite 1907 • Honolulu, HI 96813
Telephone: (808) 536-0223 • Facsimile: (808) 537-2985

TMC Job No. 9912
July 7, 2000

Kamehameha Schools
1887 Makuakane Street
Honolulu, Hawaii 96817-8485

Attention: Mr. Walter Theommes III, AIA

Gentlemen and Ladies:

Subject: Waimea Preschool

Tax Map Key 6-4-01: Portion of 59

The Traffic Management Consultant is pleased to submit this traffic assessment report to Kamehameha Schools for the proposed preschool in Waimea, Hawaii.

Purpose and Scope of the Study

The purpose of this study is to assess the potential traffic impacts that could result from the development of the proposed Waimea Preschool. This letter report documents the findings of the traffic assessment. The scope of this study includes:

- Description of the proposed project.
- Description of existing roadway and traffic conditions
- Development of the trip generation characteristics of the proposed project.
- Identification of potential traffic impacts that may result from the proposed project

Project Description

Kamehameha Schools is proposing to construct a preschool in Waimea, Hawaii that would accommodate between 50 and 80 students. The hours of operation would be between 8:00 AM and 2:30 PM, Monday through Friday. The opening of the preschool is proposed in Fall, 2001.

The project site is located on the north side of Mamalahoa Highway, about 1.4 miles east of Kamamalu Street. The 2 acre site is identified as Tax Map Key 6-4-01: portion of 59. The proposed Waimea Preschool would be located on the west side of the Department of Hawaiian Home Lands (DHHL) Kuhio Hale site. Kuhio Hale is the DHHL Waimea office and serves as a community center.

The existing Punana O Leo Preschool also shares the site. Punana O Leo Waimea has a current enrollment of about 20 students and employs 5 staff members. Hours of operation are 7:30 AM to 3:30 PM, Monday through Friday. Evening adult Hawaiian language classes are held two to three times per week, beginning around 5:30 PM and ending about 8:00 PM.

Existing site access is provided by two driveways on Mamalahoa Highway. The driveways are spaced about 450 feet apart and connect to a loop roadway within the site. The west access driveway is proposed to be relocated about 70 feet to the east, reducing the driveway spacing to about 380 feet.

The preschool parking lot access would be located about 115 feet from Mamalahoa Highway. An existing livestock weigh station is located on the east side of the west access driveway, about midway between the preschool parking lot and Mamalahoa Highway. The west access driveway is proposed to be relocated to about 10 feet from the existing scale.

The existing site contains 38 paved parking stalls. The relocated driveway would add a net 3 parking stalls and the preschool plan would contain a total of 23 stalls. Parking is also permitted on the front lawn for special events, such as the farmer's market, which is held on weekends.

Existing Roadways

Mamalahoa Highway is a two-lane, two-way County arterial highway, which provides access between East and West Hawaii. The posted speed limit on Mamalahoa Highway fronting the project site is 45 miles per hour (mph). The highway speed limit reduces to 35 mph to the west of the project site. Exclusive turning lanes do not exist on Mamalahoa Highway at the site access driveways.

The two-way access driveways for the DHHL site intersect Mamalahoa Highway at stop-controlled Tee-intersections. The west access driveway is located on a tangent section of the Highway. The east access driveway is located just west of a horizontal curve on Mamalahoa Highway.

Existing Traffic

The most recent available 24 hour traffic count data was collected by State Department of Transportation (DOT) on September 21-22, 1998 at a station, located 2.0 miles east of Kamamalu Street – about a half mile east of the project site. According to DOT data, Mamalahoa Highway carried 10,879 vehicles per day, total for both directions. The AM peak hour of traffic occurred between 6:45 AM and 7:45 AM, with the highway carrying a total of 959 vehicles per hour (vph), 690 vph westbound and 269 vph eastbound. The PM peak hour of traffic occurred between 4:15 PM and 5:15 PM, with the highway carrying a total of 884 vph

– 311 vph westbound and 573 vph eastbound. During the afternoon peak hour of the preschool traffic (2:30 PM to 3:30 PM), Mamalahoa Highway carried 837 vph – 350 vph westbound and 487 vph eastbound.

Site-Generated Traffic

The trip generation methodology, used in this study, was based upon generally accepted techniques developed by the Institute of Transportation Engineers and published in the "Trip Generation", 6th Edition (ITE). ITE trip rates were developed by correlating the total vehicle trip generation data with various land use characteristics, such as the vehicle trips per student. The trip rates used in this analysis were developed for daycare centers, which ITE describes as "a facility where care for pre-school age children is provided". The peak hour of generator trip generation rate was used in this analysis. The peak hour of generator trip rate is defined as "the vehicle trip generation rate during the hour of highest volume of traffic entering and exiting the site during the A.M. or P.M. hours." The peak hour of generator trip rates are usually greater than or equal to their respective trip rates during the commuter peak hours of traffic. In the case of a daycare center or preschool, the peak hour of generator occurs immediately before school starts and shortly before and after school ends.

Based upon the maximum enrollment of 80 students, the proposed Waimea Preschool is expected to generate a total of 66 vph during the AM peak hour of traffic – 35 vph entering and 31 vph exiting the site. During the PM peak hour of traffic, preschool is expected to generate 68 vph – 32 vph entering and 36 vph exiting the site.

Findings

The traffic volumes, generated during the peak hours of traffic, represent about 7 to 8 percent of the existing AM and PM peak hour traffic volumes on Mamalahoa Highway, respectively. The peak flows can occur during 30 minute periods prior to the start of classes and before and after the end of school. In the morning, motorists are expected to park their vehicles and walk their children to class. In the afternoon, motorists are again expected to park their cars and walk their children from the school. The existing Punana O Leo Preschool operates under a different schedule from the proposed preschool, starting a half hour earlier and ending an hour later. Therefore the traffic generated by the two preschools are not expected to conflict with one another.

The pedestrian traffic, generated by the proposed preschool, is not expected to be significant along the highway. The existing parking on site should be adequate except during special events at the preschool or other concurrent events, held at Kuhio Hale and/or Punana O Leo. Overflow parking can be accommodated on the front lawn area.

The threshold peak hour left turn traffic demand, that would meet the volume warrant for an exclusive left turn lane on Mamalahoa Highway at the site access driveways, is about 20 vph. An exclusive left turn lane may be warranted on Mamalahoa Highway at the west access driveway, depending the trip distribution, i.e., the volume of school traffic approaching from the west.

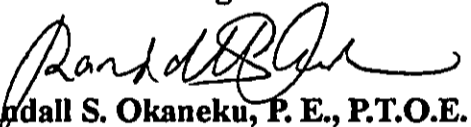
The existing sight distance, looking toward the left from the east access driveway, is limited by the horizontal curvature of Mamalahoa Highway. The estimated sight distance, looking east, is about 400 feet. At the posted speed of 45 mph (50 mph design speed), about 480 feet of sight distance is required to the left of the east access driveway. The available sight distance is more appropriate for a 40 mph design speed and a 35 mph posted speed.

School traffic entering the school parking lot from the west access driveway may queue back to Mamalahoa Highway – the distance between the parking lot access and Mamalahoa Highway would provide queuing for about five (5) vehicles. A one-way circulation pattern, i.e., entry from the east access driveway and exit from the west access driveway, would mitigate the potential for queuing. However, the one-way circulation plan would increase the left turn demand at the east access driveway, where the sight distance is limited.

The existing livestock scale may need to be relocated so as not to impact Mamalahoa Highway at the west access driveway. Additional information would be required to assess the proximity of the scale to the relocated west access driveway, including the frequency and volumes of traffic using the scale and current site circulation patterns.

If you require clarification on any of the above material or have any other questions, please do not hesitate to call me.

Very truly yours,
The Traffic Management Consultant

By 
Randall S. Okaneku, P. E., P.T.O.E.
Principal

Copy to: Ms. Yukie Ohashi, PBR Hawaii