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JOHN WAIHEE
GOVERNOR

June 23, 1994

TO: Robert P. Takushi, Comptroller
Department of Accounting and General Services

SUBJECT: EIS - Keaau II Elementary School

I am pleased to accept the Final Environmental Impact Statement for the Keaau II Elementary School, Puna District, Hawaii County as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes.

This environmental impact statement will be a useful tool in the process of deciding if the action described therein should be allowed to proceed. My acceptance of the statement is an affirmation of the adequacy of that statement under the applicable laws and does not constitute an endorsement of the proposed action.

When the decision is made regarding the proposed action itself, I expect the appropriate legislative bodies and governmental agencies to consider if the societal benefits justify the economic, social, and environmental impacts which will likely occur. These impacts are adequately described in the statement which, together with the comments made by reviewers, provides useful analysis of the proposed action.

JOHN WAIHEE

c: Bruce S. Anderson

22365

May 1994 FEIS
Keaau II Elem. sch.

KEAAU II ELEMENTARY SCHOOL
Puna District, Island of Hawaii

FINAL
ENVIRONMENTAL IMPACT STATEMENT
AND SITE SELECTION STUDY

Prepared For:

The Department of Accounting
and General Services

STATE OF HAWAII

DAGS Job No. 11-16-6084

Prepared By:

Group 70 International, Inc.
Architecture • Planning • Interior Design • Environmental Services
925 Bethel Street
Honolulu, Hawaii 96813
(808) 523-5866

May 1994

KEAAU II ELEMENTARY SCHOOL
Puna District, Island of Hawaii

FINAL
ENVIRONMENTAL IMPACT STATEMENT
AND SITE SELECTION STUDY

This environmental document is prepared pursuant to Chapter 343, Hawaii Revised Statutes and Chapter 200 of Title 11, Administrative Rules, Department of Health, "Environmental Impact Statement Rules".

PROPOSING AGENCY:

The Department of Accounting and General Services
State of Hawaii

ACCEPTING AUTHORITY:

Governor, State of Hawaii

Responsible
Official:


Robert P. Takushi, COMPTROLLER

MAY 25 1994

DATE

PREPARED BY:

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May 1994

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SECTION 1 - Introduction

KEAAU II ELEMENTARY SCHOOL
Puna District, Hawaii
FINAL ENVIRONMENTAL IMPACT STATEMENT

Responsible Office: Robert P. Takushi
Comptroller
Department of Accounting and General Services
State of Hawaii
Honolulu, Hawaii 96813
Contact: Ralph Morita (808) 586-0486

Accepting Authority: Governor, State of Hawaii

Name of Action: Site Selection for New Keaau II Elementary School

1.0 INTRODUCTION

1.1 PROJECT CHARACTERISTICS

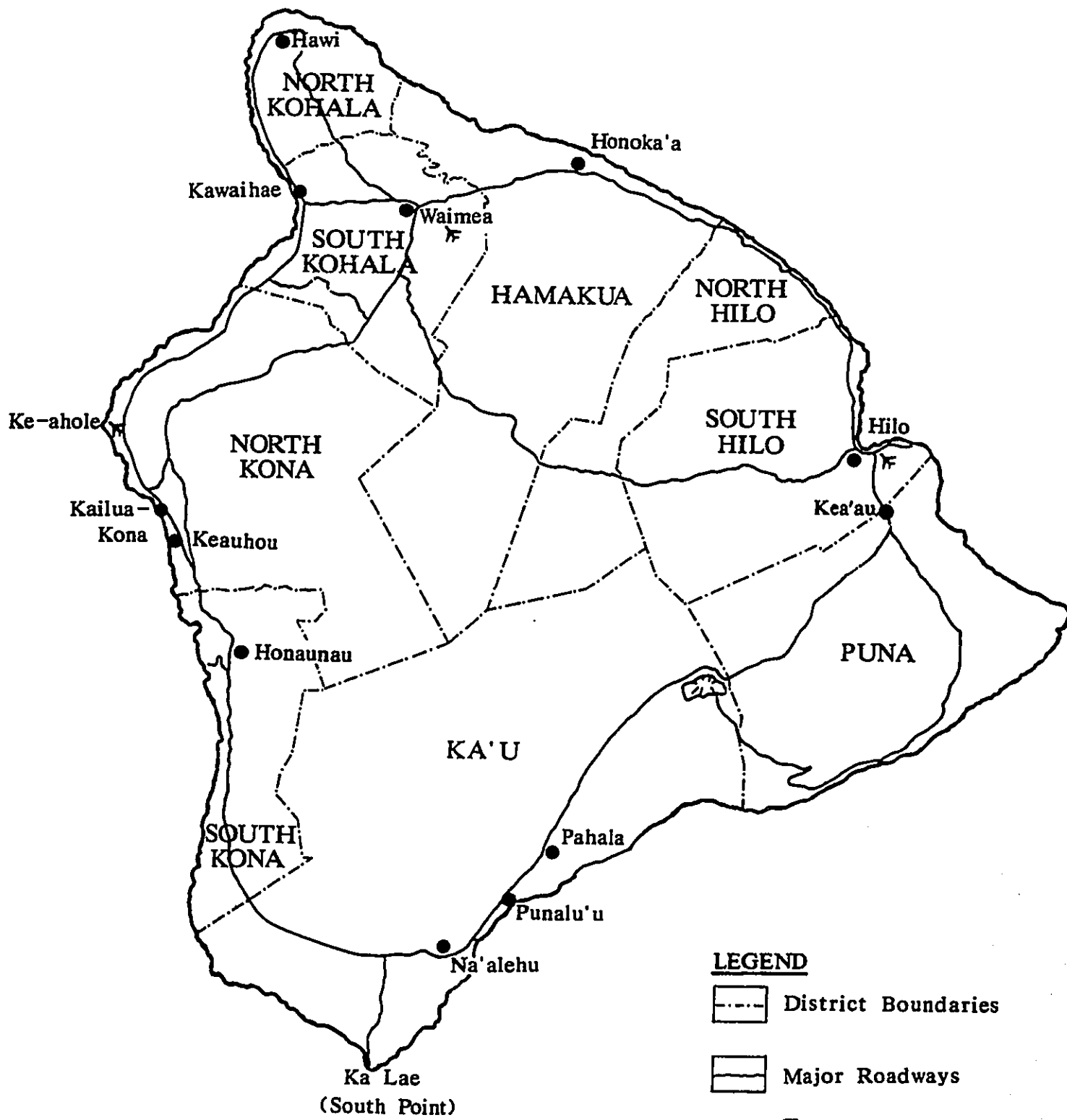
The State of Hawaii Department of Accounting and General Services (DAGS), on behalf of the Department of Education (DOE), is proposing to build a new Keaau II Elementary School to serve grades K-5 in the Puna District on the Island of Hawaii (Figure 1). The target opening date for the new facility is the fall of 1997 with a design enrollment of 945 students.

The existing Keaau Elementary and Intermediate School's service area includes elementary students from Keaau, Kurtistown, Hawaiian Paradise Park, and Orchid Land Estates (Figure 2). The service area is served by only one elementary school in Keaau. The schools in this area are part of the larger Waiakea Complex which is a system of elementary and intermediate schools feeding into Waiakea High School. The Waiakea Complex serves residents from Waiakea to Mountain View to Hawaiian Paradise Park and consists of Mountain View Elementary, Keaau Elementary and Intermediate, Waiakea Waena and Waiakea Elementary Schools.

Due to the continued growth in school enrollment and the constant increase in the general population of this area, current planning efforts have focused on identifying candidate sites which would provide a location for the construction of a new elementary school which would serve the existing service area as it is currently configured. The existing Keaau School would be converted to a middle school, accommodating grades 6-8 and would also include Mountain View grade 6 classes.

Based on existing enrollments, population projections, anticipated future developments and other factors, the DOE has determined that the current Keaau Elementary School facilities are inadequate. The proposed Keaau II Elementary School is intended to accommodate the projected increase in enrollment and will provide facilities toward attaining the state's elementary school facilities standards.

Preliminary site selection studies have identified twelve (12) potential sites within the service area. Based on minimum site criteria established by the DOE, the site selection study narrowed the selection to six (6) candidate sites (Figure 2).



Hawaii Location Map - Study Region
KEAAU II ELEMENTARY SCHOOL



Figure 1

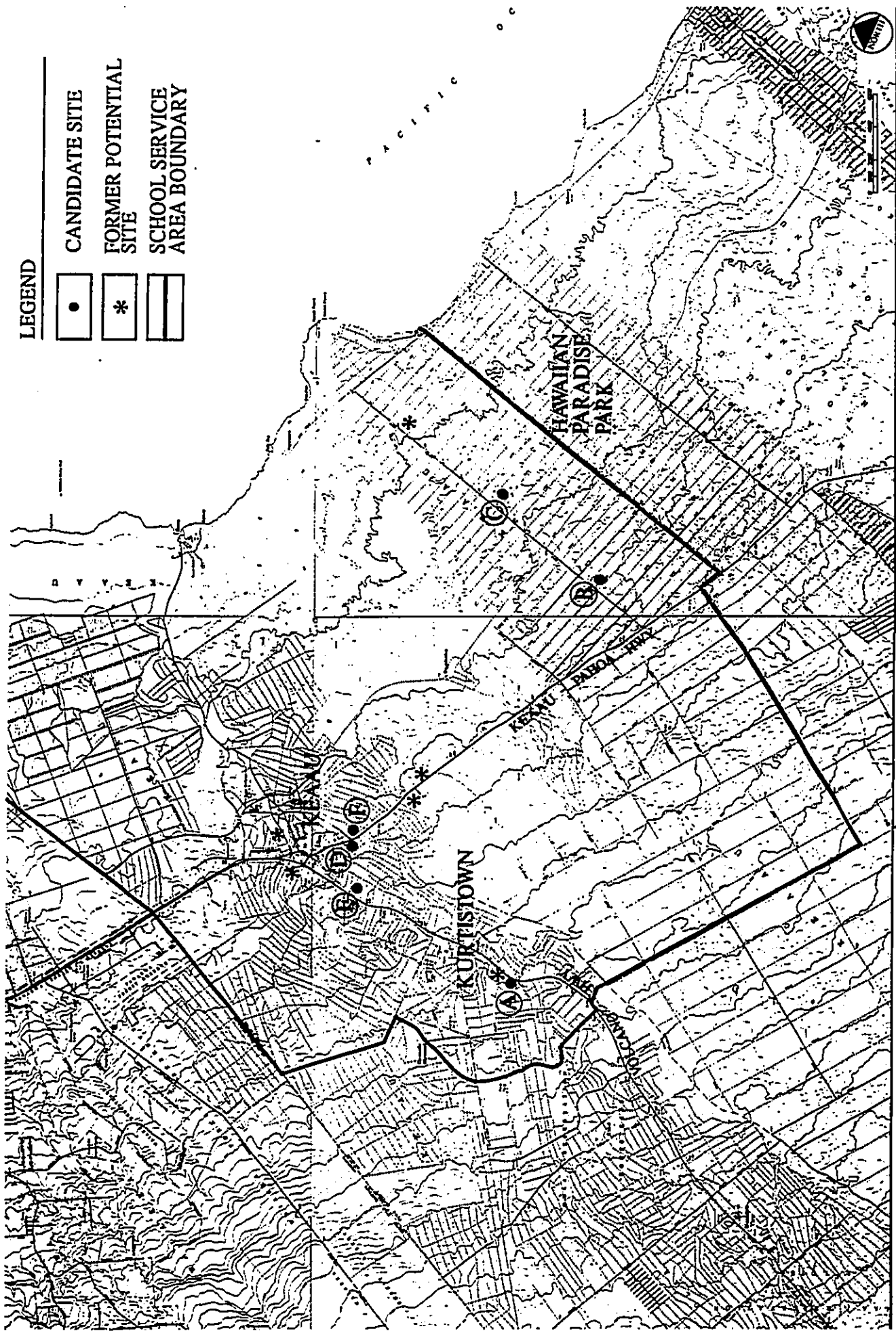


Figure 2

KEAAU II ELEMENTARY SCHOOL
Regional Map/School Service Area

<u>Candidate Site</u>	<u>TMK</u>	<u>Acreage</u>	<u>State Land Use</u>	<u>County General Plan</u>	<u>County Zoning</u>
Site A Kurtistown Owner: AMFAC	1-7-03:017	8.33 ac.	Agricl.	Low Density	Single Family
Site B Paradise Park Owner: Hui Hanalike	1-5-39:267	12 ac. por.	Agricl.	Orchard	Open
Site C Paradise Park Owner: Hui Hanalike	1-5-47:206	12 ac. por.	Agricl.	Orchard	Open
Site D Keaau Town Owner: W.H. Shipman Ltd.	1-6-03:008	12 ac. por	Agricl.	Low Density	Agricl.
Site E Keaau Town Owner: W.H. Shipman Ltd.	1-6-03:011	12 ac. por.	Agricl.	Low Density	Agricl.
Site F Keaau Town Owner: W.H. Shipman Ltd.	1-6-03:003	12 ac. por.	Agricl.	Low Density	Agricl.

1.2 PURPOSE AND CONTENTS OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

This Draft Environmental Impact Statement has been prepared and is being filed with the State of Hawaii Office of Environmental Quality Control (OEQC) as a Draft Environmental Impact Statement (Draft EIS). It evaluates the potential impacts of the new elementary school on the natural and human environment.

This document is presented in eight sections. Section 1 contains an introduction, including an overview of the project. Section 2 is a detailed description of the project. Section 3 describes the existing conditions and environmental setting of the school service area. Section 4 identifies the potential sites and describes the site selection methodology. Section 5 describes in detail the site selection criteria. Section 6 contains the evaluation of the six candidate sites. Section 7 addresses the potential impacts and mitigative measures. Section 8 includes a discussion of the relationship of the project to existing policies and plans for the areas. Alternative uses to the proposed action, including no-action, changing the school service area boundaries, and expanding the existing school are presented in Section 9. Section 10 addresses the relationship of between short-term uses and the maintenance and enhancement of long-term productivity. Section 11 cites the irreversible and irretrievable commitment of resources. A list of the necessary approvals is located in Section 12. Section 13 summarizes the unresolved issues. Section 14 lists the governmental agencies, community organizations and individuals which have been contact in the planning process. Section 15 includes a list of the references and preparers of this document. And finally, Section 16 includes the written comments received and the corresponding responses.

1.3 AGENCY AND PUBLIC CONSULTATION

The public consultation process established for the environmental review of this project follows the review process used by the State Office of Environmental Quality Control for the review of "applicant actions". This process is generally outlined in Chapter 200 of the State Administrative Rules which, in part, provides rules concerning the preparation and review of both the environmental assessments and the environmental impact statements. The list of agency and public parties consulted is included in Section 14 of this report.

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SECTION 2 - Project Description

2.0 PROJECT DESCRIPTION

2.1 EXISTING CONDITIONS

Keaau Elementary and Intermediate School is located in the town of Keaau in the Puna District on the Island of Hawaii. The Elementary School services an area extending from the South Hilo-Puna District boundary, west to Kurtistown and south including one-half of the Hawaiian Paradise Park Subdivision. There are no other elementary schools in this service area. (Figures 1 and 2)

A Site Selection Study to identify and evaluate potential sites based upon the future projected needs for a new elementary school (K-5) in the Keaau School Service Area has been conducted. The results of the Site Selection Study are presented as a part of this Draft EIS. The site characteristics of potential locations were evaluated according to established DOE site selection criteria. The site improvement costs to bring a parcel into compliance with county standards have also been estimated and appear in the Site Selection Study section. The six candidate sites are identified in Section 1.1 Project Characteristics at the beginning of this report. There are no existing structures on any of the candidate sites.

2.2 FUTURE PROJECTIONS

The State of Hawaii Department of Accounting and General Services (DAGS) in cooperation with the Department of Education (DOE) is proposing to establish the Keaau II Elementary School, serving Kindergarten through grade 5. The elementary school's target opening date is the fall of 1997.

The enrollment at Keaau Elementary and Intermediate School has grown consistently and rapidly from 742 students in 1986, to 1,147 students in 1989 and 1,277 by September of 1992. A large increase was experienced in 1989 due to the transfer of seventh and eighth grade students from Mountain View Elementary School in September of that year. Anticipated enrollment for 1995 is for an increase to a total of 1,433 students in grades K-8. Projected enrollment for the year 2010 is 1,700 in grades K-8.

Based on existing enrollments, population projections, anticipated future developments and other factors, the DOE has determined that the current Keaau Elementary School facilities are inadequate. The proposed Keaau II Elementary School is intended to accommodate the projected increase in enrollment and provide facilities to meet the state's elementary school facilities standards.

2.3 COMPLEX REORGANIZATION

The Hawaii School District is committed to reorganizing the school grade structure in the Keaau Service Area into three levels to separate younger children from younger adolescents.

The District plans to convert the current campus into an intermediate school with grades 6-8. Grade 6 students from Mountain View Elementary are projected to transfer to Keaau Intermediate when the new elementary school is built. The design enrollment for the intermediate school is 755 students.

2.4 PROJECT DESCRIPTION

The DOE is proposing that a new Keaau II Elementary School be constructed to relieve the congestion from continuing and projected increases in enrollment within the Keaau Service Area. The projected opening date for the new elementary school is the fall of 1997. The new school will have a design enrollment of 945 students.

The proposed new Keaau II Elementary School will include regular classrooms, a permanent special education classroom, an administration building, a library, and a food service building with a conventional kitchen and student/staff dining area. Space for additional portable classrooms will also be provided to accommodate peak enrollment. Integrated with the classroom buildings will be a computer resource center, and faculty center. Parking will be provided as necessary to meet County of Hawaii requirements. Also provided will be playfields and covered paved playcourts.

The project will require 12 usable acres of land. Besides building construction, each site will have site development and utility service requirements.

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SECTION 3 - Environmental Setting

3.0 ENVIRONMENTAL SETTING

The terrain of the Keaau School Service Area varies gently from the flat lava covered lands of the Paradise Park area to the higher elevation sites in Keaau and Kurtistown. The geographic differences across the six candidate site locations influence the environmental characteristics of each site. The following items are discussed from a broad overview of characteristics of the entire Service Area, recognizing that there are differences between specific sites due to their location.

Regional Description: The Keaau district is located in the area where the ash soils of Mauna Loa meet the lava flows of Kilauea. A region of gentle slopes, porous soils and lava surfaces, the land drops slowly to the sea. The elevations of the six candidate sites range from 140 to 680 feet above mean sea level.

3.1 CLIMATE

Located on the windward coast of Puna, the school service area has a nearly constant exposure to the northeast trade winds. Due to elevational differences the sites vary in their range of rainfall and temperatures. The lowest site at Paradise Park has temperatures similar to Hilo where maximum daily temperatures range from 80°F to 90°F (degree Fahrenheit) between winter and summer. Minimum temperatures range from 65°F to 70°F. The Keaau and Kurtistown sites are at a higher elevation and mean maximum temperatures range from 75°F in the winter months, to 85°F in the summer and fall. Mean minimum temperatures range from 60°F in winter to 70°F in summer.

The mean annual rainfall varies from 100 to 150 inches. However, the rainfall frequency differs from place to place because there is a complex relationship between the terrain, elevation, wind, and moisture characteristics of a particular site.

3.2 TOPOGRAPHY

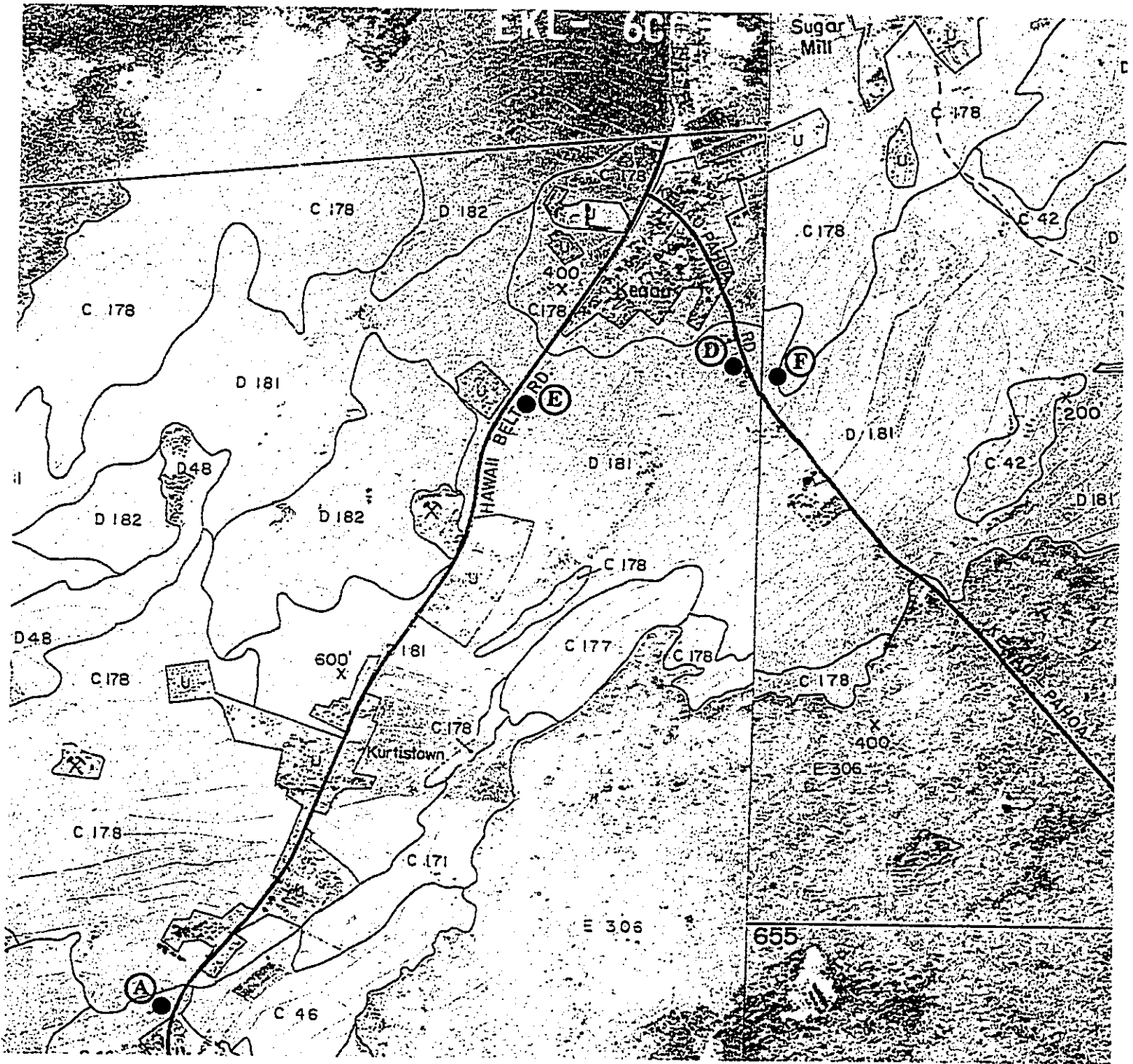
The land is predominantly gently sloping with minor variations due to the pattern of lava flows from Mauna Loa and Kilauea. Small depressional areas and drainage channels are occasionally formed, but due to the porous nature of the soil and substrata, surface erosion has not yet created great variations in slope or terrain. The overall slope follows the general curvature of the shield volcanos of which the region is a part. The elevations of the sites vary from 140 to 680 feet above mean sea level.

3.3 SOILS

The Keaau and Kurtistown candidate sites are fallow agricultural lands while the Hawaiian Paradise Park candidate sites are former ranch and lava lands. Soil associations found in the school service area include almost bare pahoehoe with no soil materials in the Paradise Park region to Olaa soils around Keaau and Kurtistown which are moderately deep, fine soils. Maps showing soil classifications for the six sites are shown in Figures 3 through 6. A description of the soil characteristics of each site is included in Section 6 of this report.

3.4 DOMESTIC WATER

The majority of domestic water supply for the school service area in Keaau and Kurtistown is provided by the County of Hawaii Department of Water Supply. Private water catchment systems are utilized at Paradise Park. Wells that tap the Puna-South Hilo aquifer provide the infrastructure for non-catchment sources in the district.



See Section 6 for detailed soil description.

Land Study Bureau Soil Classification
KEAAU II ELEMENTARY SCHOOL

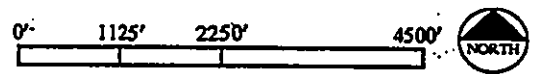
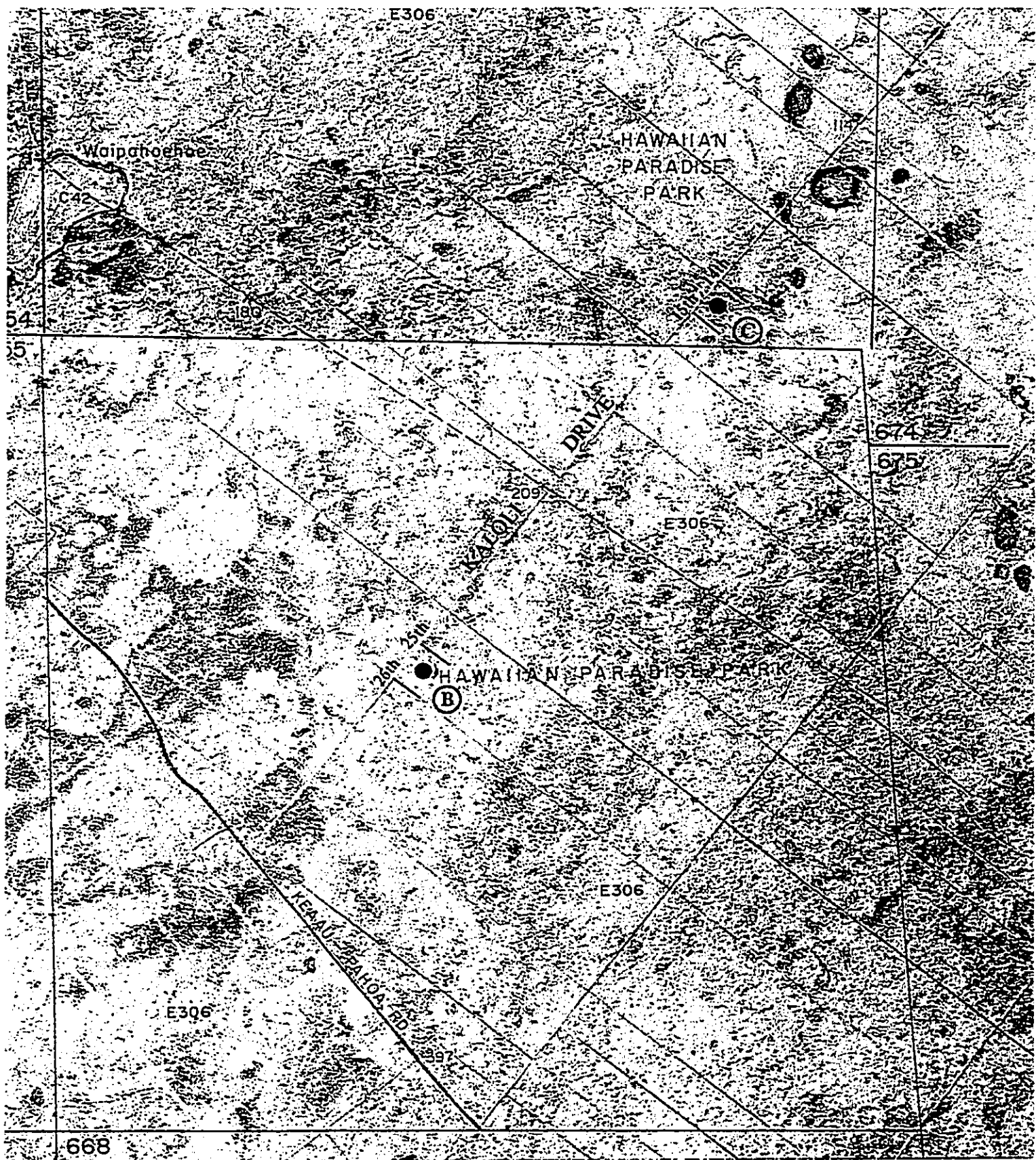


Figure 3



See Section 6 for detailed soil description.

Land Study Bureau Soil Classification
KEAAU II ELEMENTARY SCHOOL

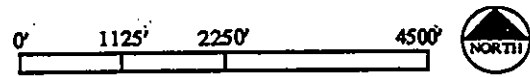


Figure 4



See Section 6 for detailed soil description.

Soil Conservation Service Soil Classification
KAAU II ELEMENTARY SCHOOL

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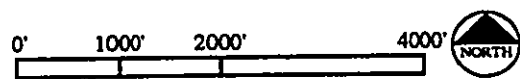
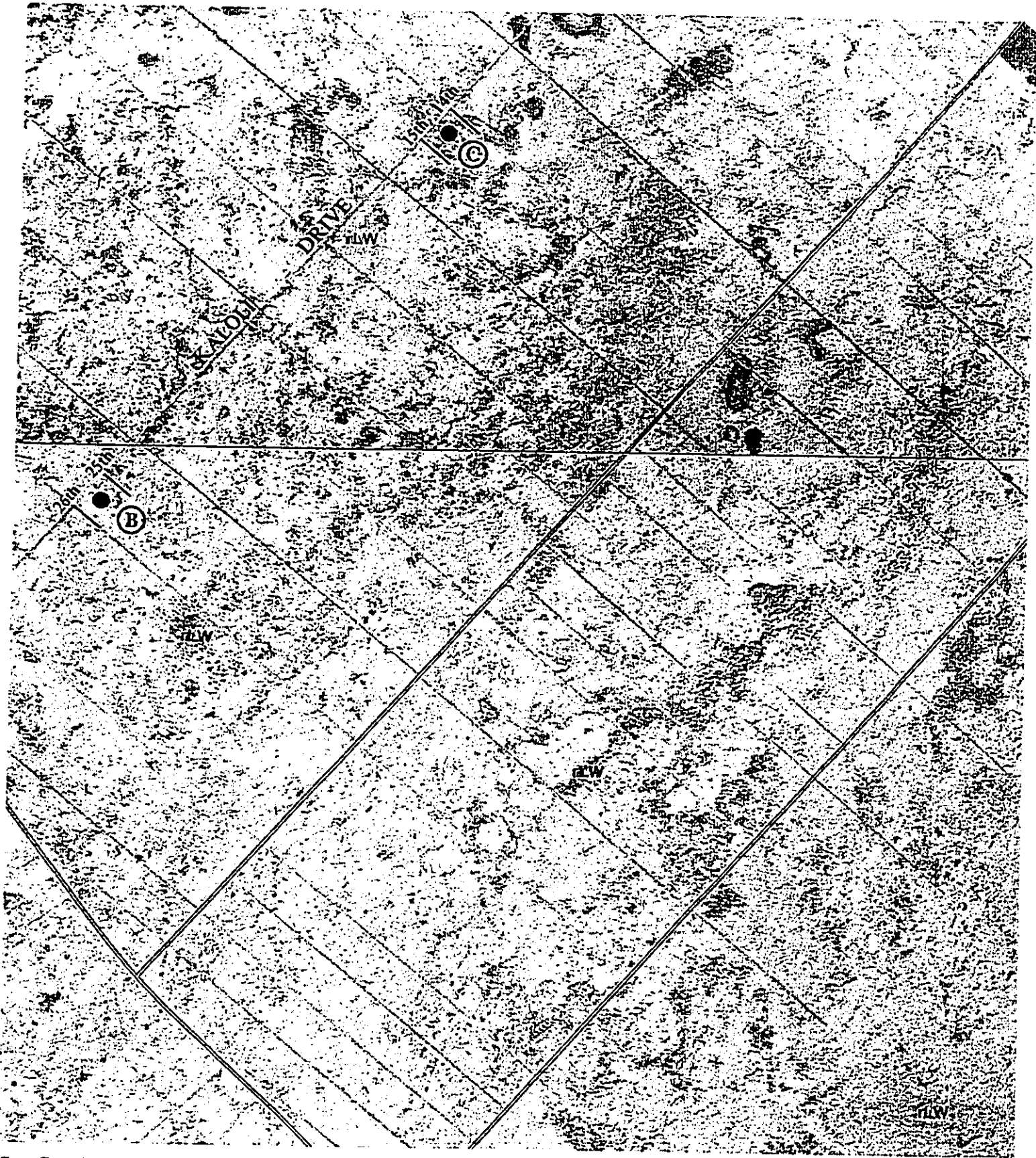


Figure 5



See Section 6 for detailed soil description.

Soil Conservation Service Soil Classification
 KEAAU II ELEMENTARY SCHOOL

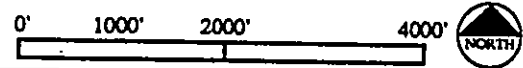


Figure 6

3.5 SURFACE WATER AND DRAINAGE

There is one unnamed intermittent stream which originates outside of the school service area and terminates south and east of Keaau Town. There are no known wetlands within the candidate sites.

In general, site drainage for all six candidate sites is good. Some pockets with clay soils over volcanic ash may show localized ponding, but overall soils tend to be well drained and the underlying lava bedrock is highly permeable.

3.6 OCEAN WATER AND MARINE RESOURCES

The site nearest the ocean, Site C in Hawaiian Paradise Park, is approximately 10,000 feet from the ocean. All other sites are much farther inland. There is no impact on ocean water or marine resources from this project.

3.7 NATURAL HAZARDS

The school service area is subject to natural hazards, as all similar lands within the Puna District, including the possibility of lava flows, seismic activity and hurricanes. Tsunami inundation does not reach any of the candidate sites as they are inland of the tsunami flood boundary (12 feet above mean sea level). All sites are outside of any designated flood hazard areas.

The development of the proposed school will have no special susceptibility to natural hazards common to the region. Design and construction of the elementary school will be done in accordance with building codes which take into consideration the possibility of seismic activity. All of the sites are within the Volcanic Hazard Zone Three.

3.8 VEGETATION

A variety of botanical species are present in the school service area due to the large land area and variation in climate and topography.

A visual survey of the sites was undertaken during the course of two field investigations. During this survey, the team saw no plants officially listed as "threatened" or "endangered" species. In addition, none of the plants observed were proposed or candidates for such status.

3.9 TERRESTRIAL AND AQUATIC WILDLIFE

Domestic pets, feral animals, livestock and rodents make up the majority of the non-human mammals inhabiting the service area. The Hawaiian Hoary Bat may be found in the area, though no sightings were reported.

A wide variety of introduced bird species can be found throughout the services area such as doves and myna. The Hawaiian Owl (Pueo) and Hawaiian Hawk (Io) and the Newell's shearwater ('A'o) may transit through or forage on sites found in the area though none were observed during field investigation. It is recommended that proposed outside lights on the school building be shielded and aimed downward to minimize potential "fallout" (exhaustion and/or collision with structures brought on by attraction to and disorientation from bright lights) of Newell's shearwaters during their nesting season.

A safe breeding area for Hawaiian Geese (Nene) was established by Mr. Herbert Shipman in the 1940's and continues to exist along the coast makai of Keaau town on Shipman property. The State Department of Land and Natural Resources (DLNR) administers funds from the Federal

Forestry Stewardship program which assists with the Nene Sanctuary's operating expenses. The Sanctuary is a cooperative effort between the DLNR and W. H. Shipman, Ltd.

3.10 ARCHAEOLOGICAL RESOURCES

According to the State Historic Preservation Division, there are no known or listed archaeological sites on any of the six candidate school sites. However, it should be noted that there are many lava tubes present in the Hawaiian Paradise Park Subdivision which may be potential locations for undiscovered archaeological or cultural resources. Vacant lava fields covered with vegetation may also contain unidentified features of cultural or historic value. While none were observed during the initial field investigations the possibility exists that features may be discovered during development. The remaining sites are all fallow agricultural lands, primarily sugarcane. The likelihood of finding archaeological features on these sites is remote because these lands have been previously tilled and disturbed by agricultural operations.

3.11 ROADS

Highway 130 and Highway 11 are the principal roadways in the school service area. Highway 11 runs from Hilo through Keaau to Volcanoes National Park, a popular tourist destination and therefore a heavy generator of traffic. Highway 130 carries even greater loads as it services the fast growing communities in the Puna district by connecting Keaau to Pahoia and the communities further south. Table 1 summarizes traffic volumes and trends from 1982 to 1992. Both are two-lane, two-way arterial highways which provide regional access to the Keaau area. From the intersection with Highway 130, the Volcano Highway widens to a four-lane divided highway towards the Hilo direction. County roadways, private streets and cane haul roads run both mauka and makai connecting Highways 130 and 11 with residences, agricultural lands and recreational areas. The State Department of Transportation is studying the feasibility of a Keaau By-Pass Road which would run from Highway 130 at the south end of Keaau town, along the community's eastern boundary, and then connecting up with Highway 11 on Keaau's southwestern edge (Figure 7).

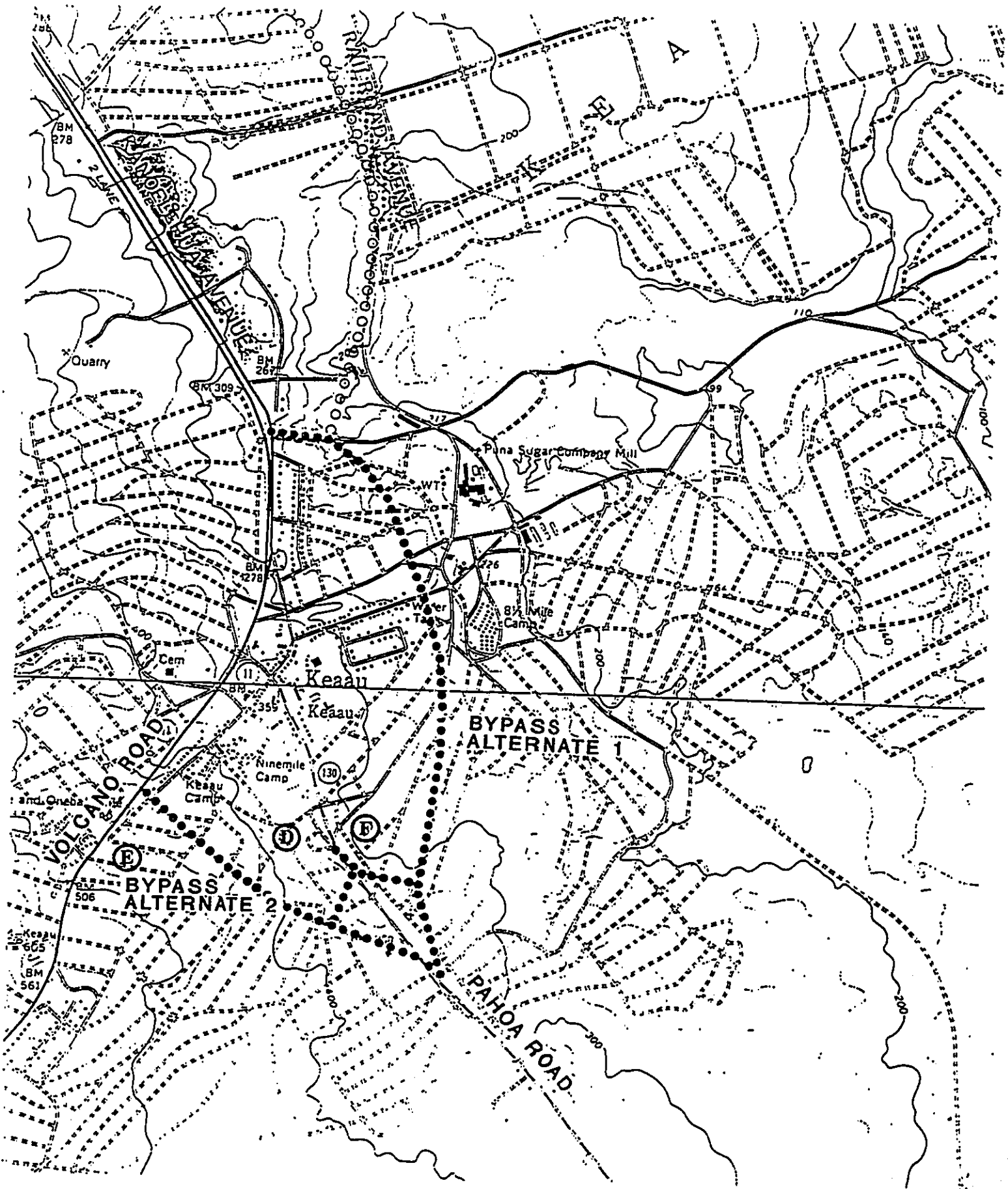
Traffic volume on Highways 130 and 11 have increased steadily over the past decade. The State of Hawaii Department of Transportation traffic counts for vehicles at the Keaau intersection of Highways 130 and 11 are indicators of this increase. Traffic volume at this intersection has doubled since 1982 as illustrated in Table 1. This means that twice as many cars are traveling to and from Pahoia-direction, to and from Volcanoes National Park-direction, and to and from Hilo-direction. The 1992 State DOT traffic volume counts for the intersection of Highways 130 and 11 is shown in Figure 8. Traffic counts show that both highways are heavily used. The total volume for Highway 130 (movements #8 & 4) is greater than Highway 11 (movements #7 & 3) and reflects the growth in the Puna District over the last 10 years.

3.12 NOISE

In general, except for areas immediately adjacent to highways and commercial areas, the district is quiet and ambient noise conditions are good.

3.13 AIR QUALITY

Except for the intermittent emission of volcanic gases, ashes and particulates, the air quality of the school service area is generally good. Other potential sources of pollution are small, dispersed and intermittent and do not generally have a significant impact on ambient air quality.



Source: Imata & Associates

Proposed Keaau By-Pass Road
KEAAU II ELEMENTARY SCHOOL

3-8

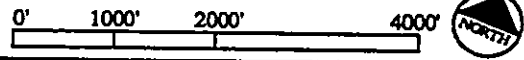


Figure 7

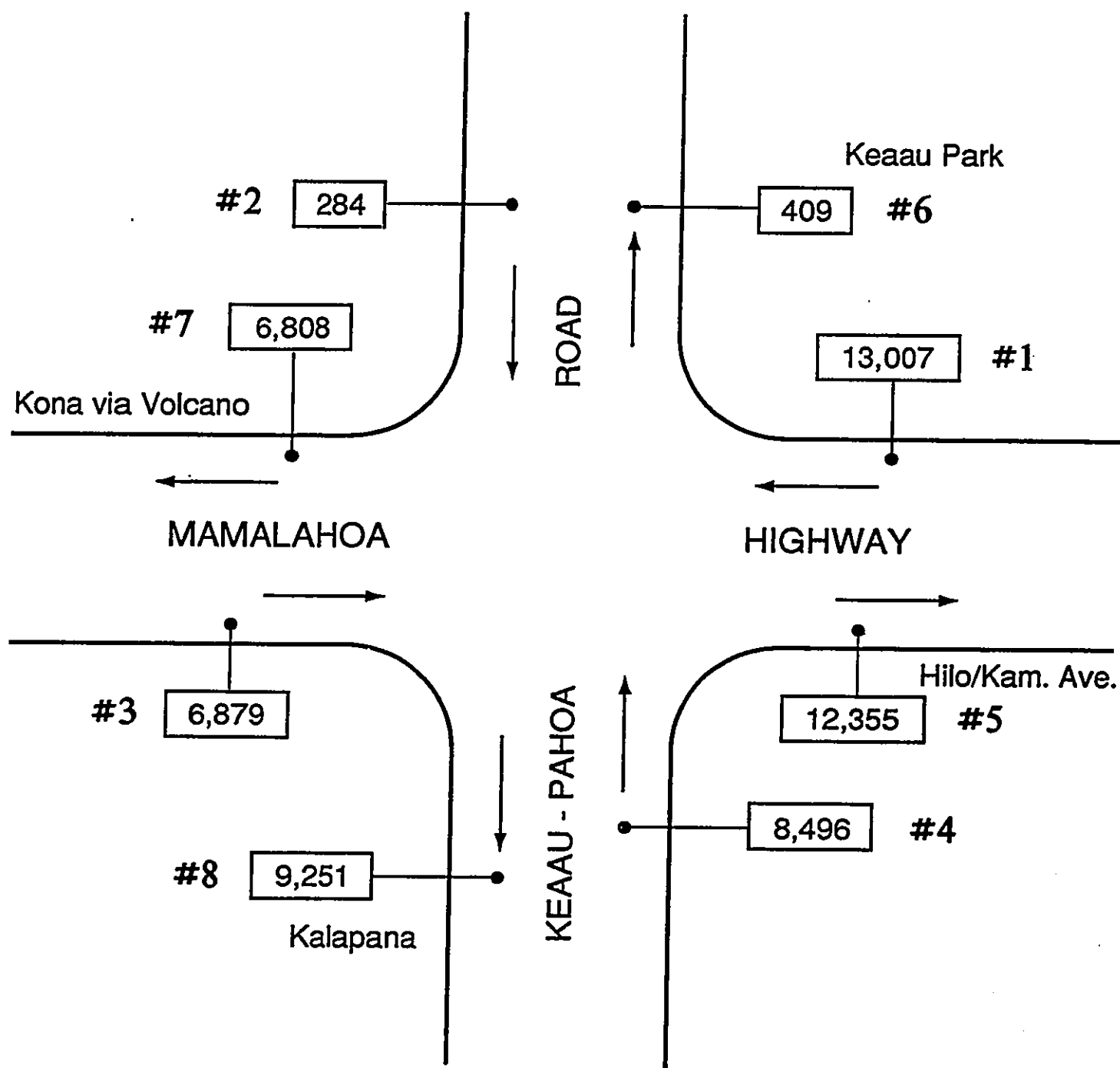
TABLE 1

STATE DEPARTMENT OF TRANSPORTATION

TRAFFIC VOLUME COUNT

VOLCANO HIGHWAY AT KEAAU-PAHOA HIGHWAY

MOVEMENT	TRAFFIC	TRAFFIC
	COUNT	COUNT
	March 1982	June 1992
#1 From Hilo	6,423	13,007
#5 To Hilo	4,658	12,355
#2 From Keaau Park	--	284
#6 To Keaau Park	--	409
#3 From Volcanoes Park	3,273	6,879
#7 To Volcanoes Park	2,939	6,808
#4 Through Keaau mauka	2,893	8,496
#8 Through Keaau makai	4,892	9,251



24-Hour Traffic Count - June 1992

KEAAU II ELEMENTARY SCHOOL

3-10

Figure 8

3.14 VIEWS

The school service area contains a variety of scenery and splendid views of the Pacific Ocean. The higher elevations of the Kurtistown area afford spectacular views of the eastern coast of the Big Island and the ocean. As the elevation lowers into Keaau and Paradise Park, views of the ocean are limited but the surrounding rural open areas are comparable visual assets.

3.15 SOCIAL AND ECONOMIC CHARACTERISTICS

3.15.1 Population

According to the U.S. Census Bureau data, the Puna District population has almost doubled every ten years since 1970 from 5,154 to 11,751 in 1980 and to 20,781 in 1990. The District's growth has changed in population characteristics over time as well. The 1970's saw an influx of newcomers from the mainland. Recently, growth in the Puna District has originated from elsewhere in the state, mainly Honolulu, Hilo, Kona and Maui.

The 1990 Census is the official count recognized by public agencies. Summary data from the Census are shown below:

Population	1920	1930	1940	1950	1960	1970	1980	1990
Island	64,895	73,325	73,276	68,350	61,332	63,468	92,053	120,317
Puna	7,282	8,284	7,733	6,747	5,030	5,154	11,751	20,781

An outline of Census data from 1970, 1980 and 1990
Source: Puna Community Development Plan, January 15, 1992

The following table summarizes Census counts for significant communities within the Keaau School District:

Population	1970	1980	% Change	1990	% Change
Keaau	951	775	-18.5	1,584	+104.4
Mountain View	419	540	+28.5	3,075	+469.4
Hawaiian Paradise Park				3,389	
Kurtistown				910	

Source: Puna Community Development Plan, January 15, 1992

Several sources have commented that populations in the Puna District are undercounted anywhere from 5 percent to 20 percent. While some undercounting seems likely, the degree of undercounting has not been verified.

3.15.2 Demographic Characteristics

With the rapid increase in population, the demographic characteristics of the Puna District has changed. Old timers in the district tend mostly to live around the established towns. Newcomers have generally moved into the agricultural subdivisions.

Ethnicity

Census data aggregates population data into groupings that do not adequately reflect the cosmopolitan and multi-ethnic character of Hawaii. This seems clearly true in the case of Puna. The following table reflects changes indicated between the 1980 and 1990 census.

POPULATION INCREASE: 1980 to 1990 CENSUS

	Puna		Island	
	Number	Percent	Number	Percent
White	+ 4,437	+ 49.1	+16,420	+ 58.1
Hawaiian	+ 2,191	+ 24.3	+ 5,846	+ 20.7
Japanese	+ 295	+ 3.3	+ 568	+ 2.0
Filipino	+ 1,161	+ 12.8	+ 2,831	+ 10.0
Others	+ 946	+ 10.5	+ 2,599	+ 9.2
TOTAL	+ 9,030	100.0	+28,264	100.0

Source: Puna Community Development Plan, January 15, 1992

Trends indicate that white and Hawaiian population increases are the most significant in both percent and total numbers. Another long term trend has been the decline of residents of Japanese ancestry from 41 percent in 1970 to 12 percent in 1990. The Filipino population has fluctuated over the last few decades.

Age/Sex Distribution

Median ages for the Keaau-Volcano and Pahoa-Kalapana areas were as follows:

	Total	Male	Female
Census Tract 210, Keaau-Volcano (including central subdivisions)	30.2	30.1	30.4
Census Tract 211, Pahoa-Kalapana	27.0	27.9	26.3

Source: Puna Community Development Plan, January 15, 1992

Age distribution data from the 1980 Census shows a large number of people in the over 60 category [16.2 percent (Census Tract 210), and 12.5 percent (Census Tract 211)] and the 25-34 category [19.8 percent (Census Tract 210) and 20.53 percent (Census Tract 211)]. However, recent trends indicate the number of children under 15 years is increasing as a percentage of population.

Household Size

Available Census data indicate average household sizes decreased slightly between the 1980 and 1990 Census: 2.96 (1980) to 2.91 (1990). The following table represents communities in the Keaau School District.

1990 Census	Occupied Houses	Population	Average Household Size
Mountain View	1,083	3,075	2.84
Kurtistown	292	910	3.12
Keaau	484	1,584	3.27
Hawaiian Paradise Park	1,157	3,389	2.93

Source: Puna Community Development Plan, January 15, 1992

3.15.3 Employment and Income

Employment in the Puna District is dispersed. Data on actual employment, location of jobs and incomes are sketchy for the District. While a large percentage work in Hilo, a fair number work in the District either in the existing towns or at home. Firm conclusions are difficult to draw because existing data are incomplete. However, peak hour traffic counts generally show a weighting toward Hilo bound work traffic.

Civilian employment in Hawaii County in 1990 was approximately 58,800 with an unemployment rate of 3.8 %. A mix of industries employs the residents of the Puna District ranging from agriculture (including papayas and macadamia nuts), Volcanoes National Park, geothermal power plant development and regional service industries. However, during the 1980's the Puna Sugar Company closed, reducing some employment opportunities. Recently, the W. H. Shipman Industrial Park has begun to serve as a major source of jobs for the region.

It should be noted that Hawaii Count has the lowest median income of all counties in the State. In 1989 it was \$29,712 as compared to a State average of \$38,829. (Source: 1993 Data Book by the Department of Business Economic Development and Tourism.

3.15.4 Public Services

Police protection for the school service area is provided by the Hawaii County Police Department. The Keaau Fire Department provides fire protection to Keaau and other surrounding subdivisions and communities within its service district.

3.16 WASTEWATER

There is no wastewater system in the Keaau School District. Existing systems are cesspools or septic tanks.

3.17 DRAINAGE

There are no manmade subsurface drainage systems in the service area. The only improvements are a series of surface culverts, ditches and swales generally along roadway and property boundaries. However, soil characteristics, the porous basaltic lava bedrocks and a series of subterranean lava tubes provide a generally adequate drainage system for the region.

3.18 UTILITIES

Electric power for residential and commercial use within the service area is provided by Hawaiian Electric Light Company. GTE Hawaiian Tel provides telephone service.

**SECTION 4 - Identification of
Potential Sites & Selection Methodology**

4.0 IDENTIFICATION OF POTENTIAL SITES & SELECTION METHODOLOGY

The objective of the Site Selection Study is to identify and evaluate potential sites for the proposed Keaau II Elementary School within the existing school service area. The process used to select the six candidate sites for consideration for the proposed school involved a multi-level screening process using layers of criteria to eliminate less desirable sites and narrow the choices for more in-depth analysis.

At the first level, criteria defined by the Department of Education were utilized to identify the broad range of sites which could be considered as potential locations for the proposed school. Community input was solicited through individual contacts, the PTSA newsletter for Keaau School, and a public notice in area newspapers. All sites suggested by community members were included in the list of potential sites. The consultants also initiated their own search based on Tax Map Key parcel information, reviews of area plans and discussions with various public agency personnel. All proposed sites were included in the original list.

Originally twelve (12) potential sites were identified through write-in or phone-in suggestions from the general public, and through a review of the service area by the consultant team for parcels which met the minimum broad scale criteria. Each of these sites underwent a field investigation and various characteristics of the sites were analyzed. The positive and negative characteristics of the potential sites were compared, and those which appeared most suitable were included in the final candidate sites list. Next, additional factors provided by DOE and DAGS, and specific guidelines developed to take into account the unique characteristics of the services area were used to help narrow the list of potential sites. A Site Selection Process Flowchart appears as Figure 9.

4.1 BROADSCALE CRITERIA

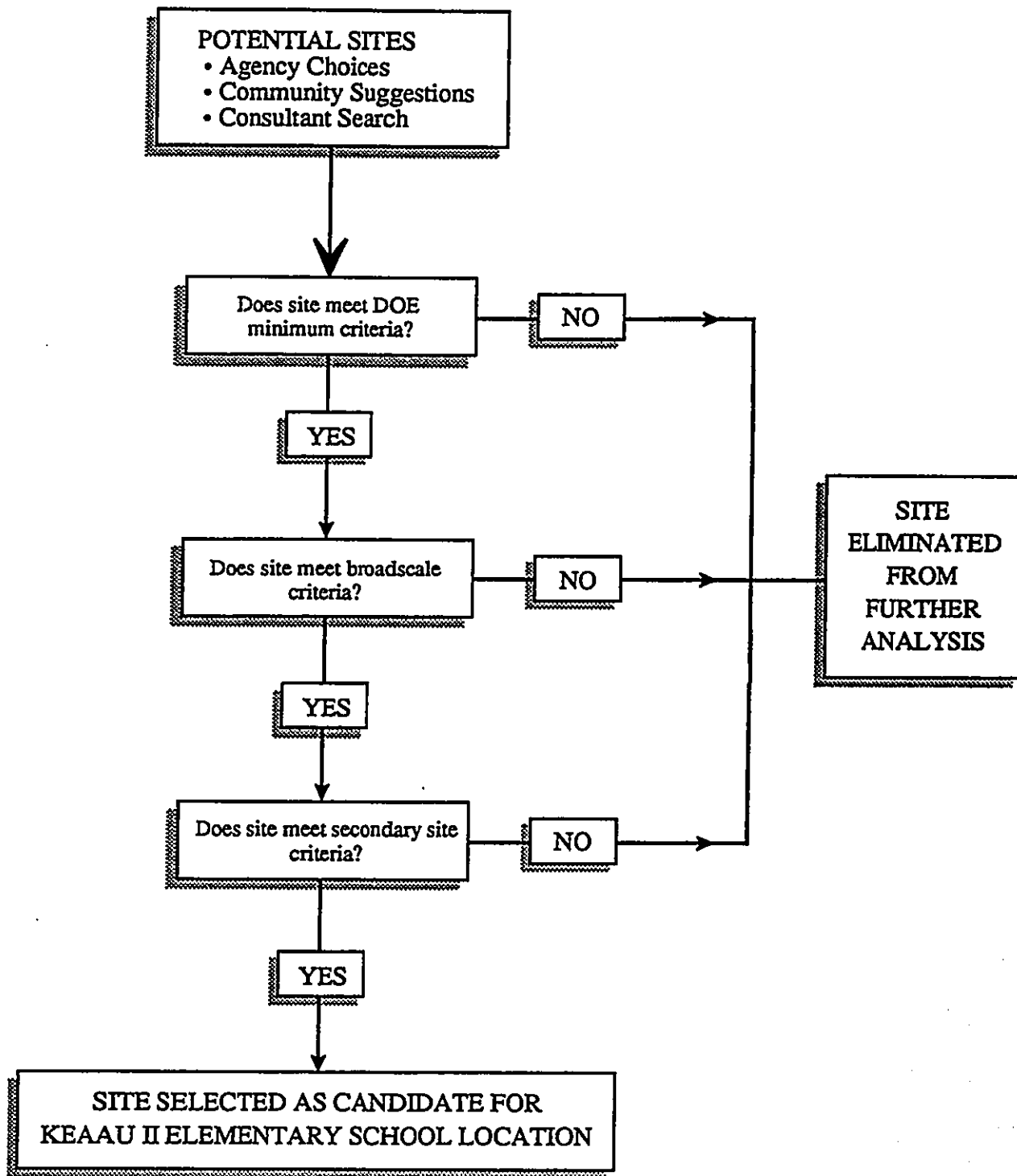
The Department of Education in its publication Educational Specifications and Standards for Schools, September 1980 has defined minimum criteria which the selected school site must meet. The minimum criteria identified below were utilized to initially screen the lands available for consideration as the site for the Keaau II Elementary School:

4.1.1 Service Area

The Department of Education requires that alternative school sites be located within the service area of a proposed school. The DOE has established that the existing service area for Keaau School will be used as the service area for the proposed elementary school as shown in Figure 2. The DOE prefers to have alternative sites centrally located within the service area, near the major concentrations of population. Due to the rural nature of the Puna District, alternative sites anywhere within the existing service area were considered in the site selection analysis. Lands outside of the existing service area were not considered.

4.1.2 Land Area

The Department of Education has set minimum standards for parcel size to accommodate the facilities and functions of an elementary school. The site must be 12 useable acres in size. A parcel may be a minimum of eight usable acres if it is adjacent to a county park, with a minimum size of four acres, so that the park could accommodate the recreational needs of the school.



Site Selection Process Flow Chart
KEAAU II ELEMENTARY SCHOOL

4.1.3 Slopes

Lands with slopes greater than eight (8) percent are unsuitable for school facilities because of the functional limitations for buildings, play areas and parking, as well as the excessive costs and difficulties inherent with construction on steep sites. Only lands with slopes less than eight (8) percent were considered for further site selection analysis.

4.1.4 Availability of Roads and Utilities

The rural nature of the Puna District requires analysis of those sites which are near existing adequate roads and utilities which are necessary to meet the ultimate demands of the school. Even though there may be large parcels of land that meet other minimum criteria, the basic need for availability of roads and utilities is an important criteria and was considered in the site assessment.

4.1.5 Tsunami and Flood Zones

Schools are used as emergency shelters in times of natural disasters. Therefore, the Department of Education requires that school sites be located outside the tsunami inundation areas as established by the Tsunami Research program of the Hawaii Institute of Geophysics and the Federal Tsunami Information Center. These areas would be evacuated in the case of a tidal wave warning. Sites within the tsunami inundation zones were not considered. Lands within the 100 year flood plains were also eliminated.

4.1.6 Subsidence and Volcanic Hazards

The school service area for this project is located entirely within Volcanic Hazard Zone Three. Areas in this zone are characterized by relatively less hazard than Zone Two because of a greater distance from recently active vents and/or because the topography makes it less likely that volcanic flows will cover these areas.

4.1.7 Historic Sites

The Department of Education's site selection criteria require that no buildings or sites designated as historic or deserving of preservation be destroyed in the acquisition and development of a new school. The site acquisition and school development process could be delayed if an alternative school site were located within or adjacent to a historic site.

4.1.8 Rare Plants or Animals

The presence of rare plants or animals could also delay or stop entirely the development process if any such species were found on a candidate school site.

4.1.9 Wetlands

The United States Fish and Wildlife Service has mapped and classified the wetlands of Hawaii. Wetlands provide essential habitat for wildlife and are also important in natural drainage systems and manmade or natural flood control. Projects that require filling wetlands are subject to the Army Corps of Engineers Section 404 permit which is a lengthy process. Due to the environmental importance of wetland areas, they have been eliminated from consideration for a school site.

4.1.10 Land Use Regulations

Land use regulations of Federal, State and County governments are designed to protect special resource areas and prime agricultural lands from encroachment of manmade improvements and structures. The regulations also encourage the orderly and efficient development of lands for urban use. Schools are directed towards sites within the State Land Use Urban District. A Special Use Permit or District Amendment may be obtained to locate a school in the State Agricultural District. These additional requests increase the time necessary for the acquisition and development process. However, due to the rural characteristics of the Puna District and the prominence of State Agricultural Lands over State Urban Lands, alternative sites in either of these Districts were considered.

4.2 ELIMINATION OF FOUR SITES

Originally twelve (12) potential sites were identified through write-in or phone-in suggestions from the general public, and through a review of the service area by the consultant team for parcels which met the minimum broad scale criteria. The broad scale criteria and the minimum site criteria are listed in Table 2.

Two sites were dropped from consideration early in the evaluation process. One site, which met size requirements and is County-owned, was discovered to be a County Waste Transfer Station, located south of Keaau. The second site which was dropped is owned by the W. H. Shipman Ltd. and lies in a low area which is subject to intermittent flooding. This left ten (10) remaining potential sites which were screened using the Department of Education's broadscale criteria and minimum site criteria. This screening process eliminated four (4) sites. These sites were: Henry Opukahaia School, a 49 acre site in Kurtistown, a Hawaiian Paradise Park site furthest from Pahoa Highway, and a vacant lot adjacent to Shipman Park in Keaau. These sites are identified as an "*" in Figure 2 on page 1-3.

The following is documentation of why the four sites were dropped from the list of potential sites to create the remaining list of six (6) candidate sites.

Henry Opukahaia School

This site did not rate highly. Areas that were problematic for this site include the presence of an existing school use that would either require costly demolition or costly renovation to meet the needs of the future elementary school. The present facilities have inadequate capacity for the 945 students projected for the new Keaau II Elementary School. Another significant factor is the listing price of \$3,006,000. When compared with other sites whose owners are committed to donating a site free of charge, the Henry O. school is not a desirable option from a cost comparison standpoint. Additionally, part of the existing field area seems to encroach into the adjacent parcel. Negotiation with more than one landowner was considered an additional negative. Expansion to a public school will require a new septic tank and leaching field and the 10-acre site is inadequate for full buildout. The site requirements are 8 usable acres if there is an existing adjacent 4-acre park or 10-12 usable acres if there is no adjacent park. On the Keaau Town side of the property, parts of the 10 acre site are unusable due to excessive slopes. Also, the shape of the parcel is irregular which makes optimal use of the entire parcel more difficult. Finally, the existing Special Use Permit requires access to the site via a small private road which would be substandard for the larger public school. The subsequent ingress and egress mixing of pedestrian and vehicular traffic at the school entrance is not desirable.

TABLE 2

KEAAU II ELEMENTARY SCHOOL SITING
SITE SELECTION CRITERIA

BROAD SCALE CRITERIA TO IDENTIFY POTENTIAL SITES

Minimum site criteria for identifying potential areas where the school may feasibly be located should be based on the following factors:

- Service Area
- Land Area
- Slope
- Availability of Roads and Utilities
- Tsunami and Flood Zones
- Subsidence and Volcanic Hazards
- Historic Sites
- Rare Plants or Animals
- Wetlands
- Land Use Regulations

MINIMUM SITE CRITERIA

A. An assessment of each candidate site with respect to **PHYSICAL CRITERIA**:

1. Site Characteristics
 - size
 - slope
 - shape
 - soil and foundation
 - soil depth
 - aesthetic value
 - natural beauty
2. Roadways and Utilities
 - roadways
 - water
 - wastewater
 - drainage
 - power and communications
3. Accessibility
 - pedestrian access
 - pedestrian safety
 - automobile access
 - traffic safety
4. Environment
 - highway/roadway noise
 - aircraft noise
 - rainfall
 - industrial and agricultural nuisances
 - air quality
 - toxic waste

B. An assessment of each candidate site with respect to **COMMUNITY CRITERIA:**

1. Government
 - State Land Use
 - County General Plan
 - County Zoning
2. Community Effects
 - displacement
 - existing use
 - interference with institutions
 - agricultural land classification
 - land ownership
 - proximity to student population
 - traffic

C. An assessment of each candidate site with respect to **COST CRITERIA:**

1. Land Acquisition Costs
 - assessed value of land
 - value of improvements
 - relocation of displacees
2. On-site Development Costs
 - grading
 - clearing
 - water
 - wastewater
 - drainage
3. Off-site Development Cost
 - water
 - wastewater
 - drainage
 - roads
 - walkways
4. Bus Subsidy Cost

The 49 acre Kurtistown Site

Factors which were limiting to this site included its size. A parcel which is too large (over 12 acres) is not favorable if the landowner does not subdivide because the extra land is not necessary and merely creates a financial and insurance burden for the school system. Also, the site is set back approximately 1,000 feet from Volcano Highway which, between Kurtistown and Keaau, does not carry the majority of work bound traffic. The Huina Road intersection with Volcano Highway will need intersection improvements due to the acute angle of the present intersection and the high speeds of motorists driving downhill along the Highway. During the course of investigation, the parcel was sold and is now unavailable.

The Hawaiian Paradise Park Site Furthest from Pahoa Highway

Although very similar to the other sites within the Hawaiian Paradise Park Subdivision, this site is the farthest away from Pahoa Highway. This significantly increases the costs of off-site improvements to the site when compared to the other two Paradise Park sites. Also, the distance which students must be bussed into this site is greater than the other two sites. This site is farther from the centroid of student population. It also requires students from Keaau and Kurtistown to travel against work bound traffic over a longer distance of non-standard roadways.

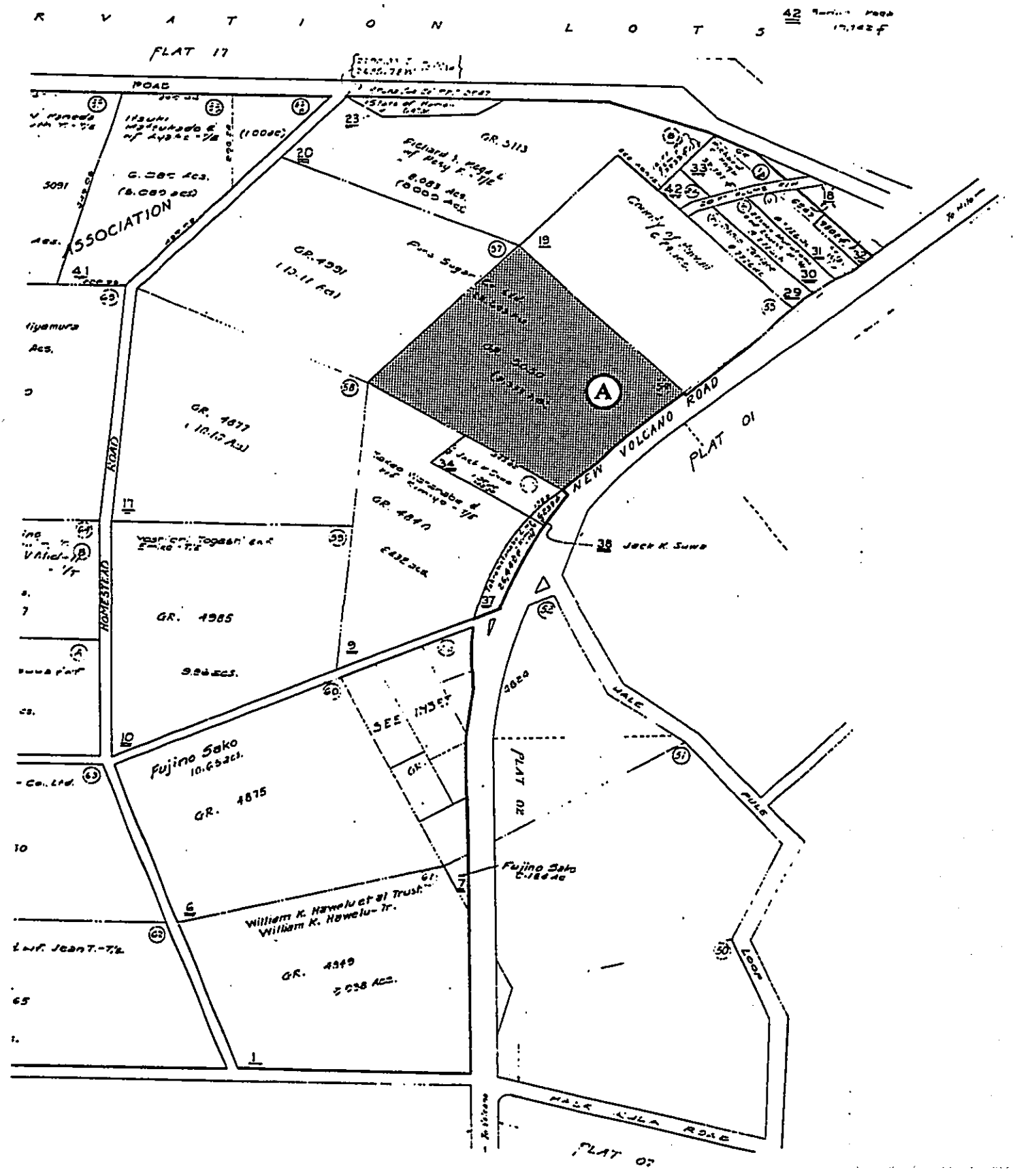
The Keaau Lot Adjacent to Shipman Park

Although next to an existing park, this site lies on the mauka side of Volcano Highway. This site would complicate existing traffic patterns which mainly originates from the makai side of the Highway. This site also fronts the major intersection of Volcano and Pahoa Highways which creates a safety hazard for small children crossing. An overhead crosswalk would most likely be required, adding to the expense of building on this site. Location of the school on this site would encourage development in an undeveloped area that is not contiguous to existing development. The location of the armory nearby raises safety issues about unexploded munitions and hazardous waste.

4.3 DESCRIPTION OF SIX CANDIDATE SITES

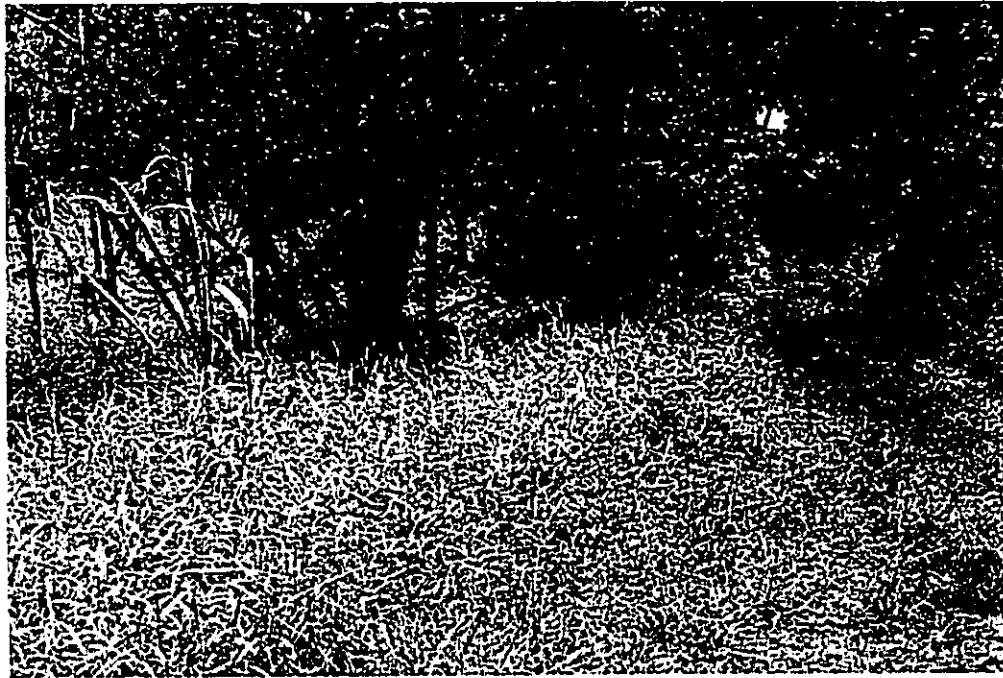
As discussed above, using a multi-level screening process and a preliminary analysis of site characteristics, six candidate sites were selected as potential locations for the new Keaau II Elementary School. The location of the parcels within which the candidate sites are located are shown in the following Figures with specific school sites identified as shaded areas. The shaded site locations are conceptual in nature and can be refined or modified to accommodate the desired school facilities layout once a final site is selected. Where the parcels are larger than 12 acres, the landowners have indicated they would subdivide out the necessary sized school lot.

Site A in Kurtistown is an 8.33 acre parcel identified as TMK: 1-7-03:017. The parcel is located adjacent to a County Park which could be used as a play area for the school (Figure 10 and 11). The combined area of Site A and the park meet the minimum 10 to 12 acre size requirements. The parcel is owned by AMFAC/JMB Property Management Division. The parcel is former sugar cane land with vegetation including a variety of trees, grasses and sugar cane. Trees are mainly Eucalyptus and Macaranga tanarius. Ginger and assorted ferns form the underbrush. There are no known rare or endangered species which could be adversely impacted by a school facility at this site.



KURTISTOWN
KEAAU II ELEMENTARY SCHOOL
 TMK 1-7-03 : 17
 Owned by AMFAC Property Development Corporation
 4-8

Figure 10



WEST VIEW TOWARD MAUKA BOUNDARY FROM VOLCANO HIGHWAY



SOUTH VIEW FROM THE MIDDLE OF THE SITE

Site A - Kurtistown
KEAAU II ELEMENTARY SCHOOL

Figure 11

The site is vacant and has a rolling slope from the mauka portion to the makai portion of the parcel. School buildings at this site would have to be terraced because of the rolling slopes. This limits the siting options for the buildings within this parcel. The lot fronts Volcano Highway which carries traffic between Volcanoes National Park and Hilo. Adjacent uses include private residences and farms.

Site A is within the State Agricultural Land Use District. The site has a County General Plan designation of Low Density and is within the Single-Family Residential County Zoning District. The potential school site is not within a flood zone.

For purposes of this study, access is assumed to be along an access drive which would need to be constructed along the Keaau-side boundary, and would connect the site directly with Volcano Highway which the site fronts.

The area is served by the County Department of Water Supply. There is no sewerage in the area. The school would require an on-site treatment facility.

Site B is located within a 20 acre parcel in the Hawaiian Paradise Park Subdivision and is identified as TMK: 1-5-39:267. The site is located adjacent to Kaloli Drive, a main interior subdivision road, and between 26th and 25th Streets (Figures 12, 13 and 14). The parcel is owned by Paradise Hui Hanalike, a community association, and is currently fallow and vacant. There are vacant lots adjacent to the parcel. Some residences are located across Kaloli Drive and the side streets that border the site.

The site is flat and the vegetation mix includes native Ohia (*Metrosideros collina*) trees and Uluhe (*Dicranopteris emarginata*) fern. There are no known rare or endangered species which could be adversely impacted by establishment of a school facility at this location.

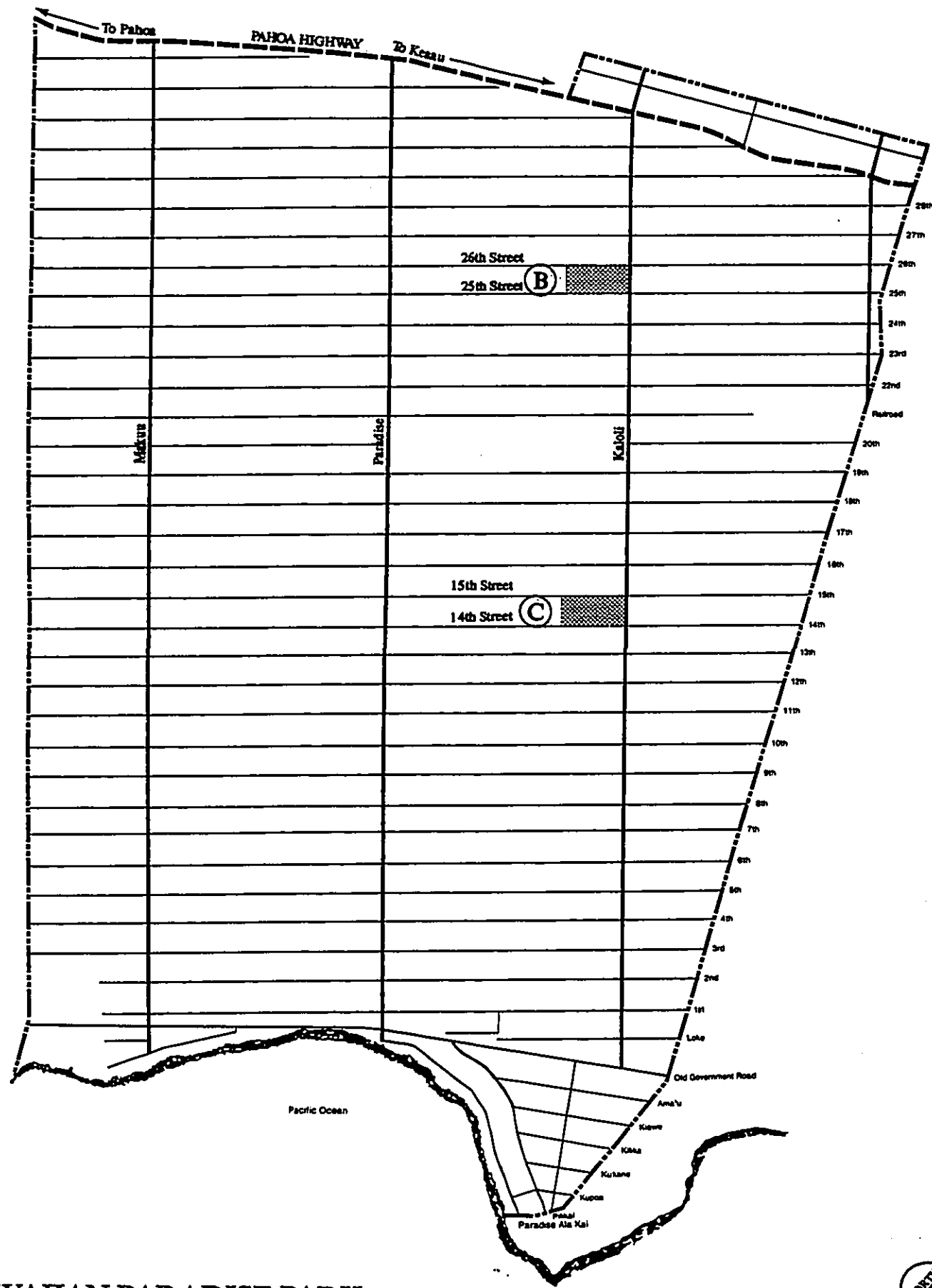
The location of the 12 acre school site within the parcel is not limited by topography. The most suitable location for the school site appears to be near Kaloli Drive. This location is easily accessible from the road.

Site B is within the State Agricultural Land Use District. The site has a County General Plan designation of Orchard and is within the Open County Zoning District.

Access to the school site would be via Kaloli Drive. This parcel is approximately a little less than one mile from Pahoehoe Highway.

Hawaiian Paradise Park is mainly serviced by private water catchment systems and on-site leech fields. This site would require its own system or an extension for the county water line along Pahoehoe Highway. This site would require an on-site wastewater treatment facility.

The State Historic Preservation Division has expressed a caution that undeveloped lava lands may contain lava tubes and other features which may potentially contain significant assets. While none were discovered in the initial field investigation, the possibility remains and further studies will be conducted if either Paradise Park site is selected.

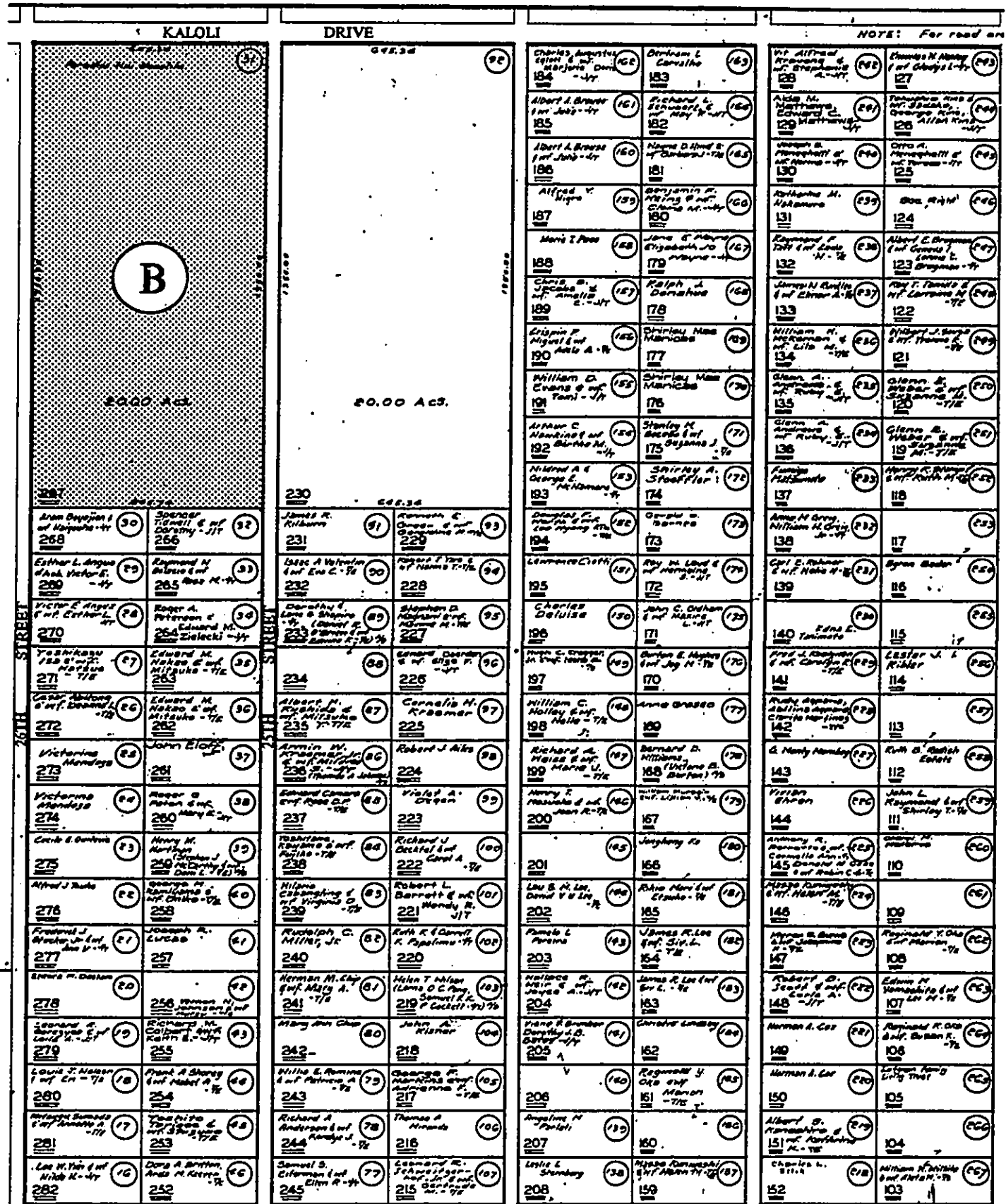


HAWAIIAN PARADISE PARK
KEAAU II ELEMENTARY SCHOOL
 TMK 1-5-39 : 267 (26th - 25th Streets)
 TMK 1-5-47 : 206 (15th - 14th Streets)
 Owned by Paradise Park Hui Hanalike

NOT TO SCALE



Figure 12



HAWAIIAN PARADISE PARK
KEAAU II ELEMENTARY SCHOOL
 TMK 1-5-39 : 267 (26th - 25th Streets)
 Owned by Paradise Park Hui Hanalike

Figure 13



LOOKING SOUTH ACROSS THE SITE



ALONG SITE BOUNDARY WITH 26TH STREET

Site B - Paradise Park 26th - 25th Streets
KEAAU II ELEMENTARY SCHOOL

Figure 14

Sites C is located within a 20 acre parcel in the Hawaiian Paradise Park Subdivision and is identified as TMK: 1-5-39:206. The site is located adjacent to Kaloli Drive, a main interior subdivision road, and between 15th and 14th Streets (Figures 12, 15 and 16). The parcel is owned by Paradise Hui Hanalike, a community association, and is currently fallow and vacant. There are vacant lots adjacent to the parcel. Some residences are located across Kaloli Drive and the side streets that border the site.

The site is flat and the vegetation mix includes native Ohia (*Metrosidenos collina*) trees and *Dryopteris* fern. There are no known rare or endangered species which could be adversely impacted by establishment of a school facility at this location.

The location of the 12 acre school site within the parcel is not limited by topography. The most suitable location for the school site appears to be near Kaloli Drive. This location is easily accessible from the road.

Site C is within the State Agricultural Land Use District. The site has a County General Plan designation of Orchard and is within the Open County Zoning District.

Access to the school site would be via Kaloli Drive. This parcel is approximately 2-1/2 miles from Pahoa Highway.

Hawaiian Paradise Park is mainly serviced by private water catchment systems and on-site leech fields. This site would either require its own system or an extension for the county water line along Pahoa Highway. This site would also require an on-site wastewater treatment facility.

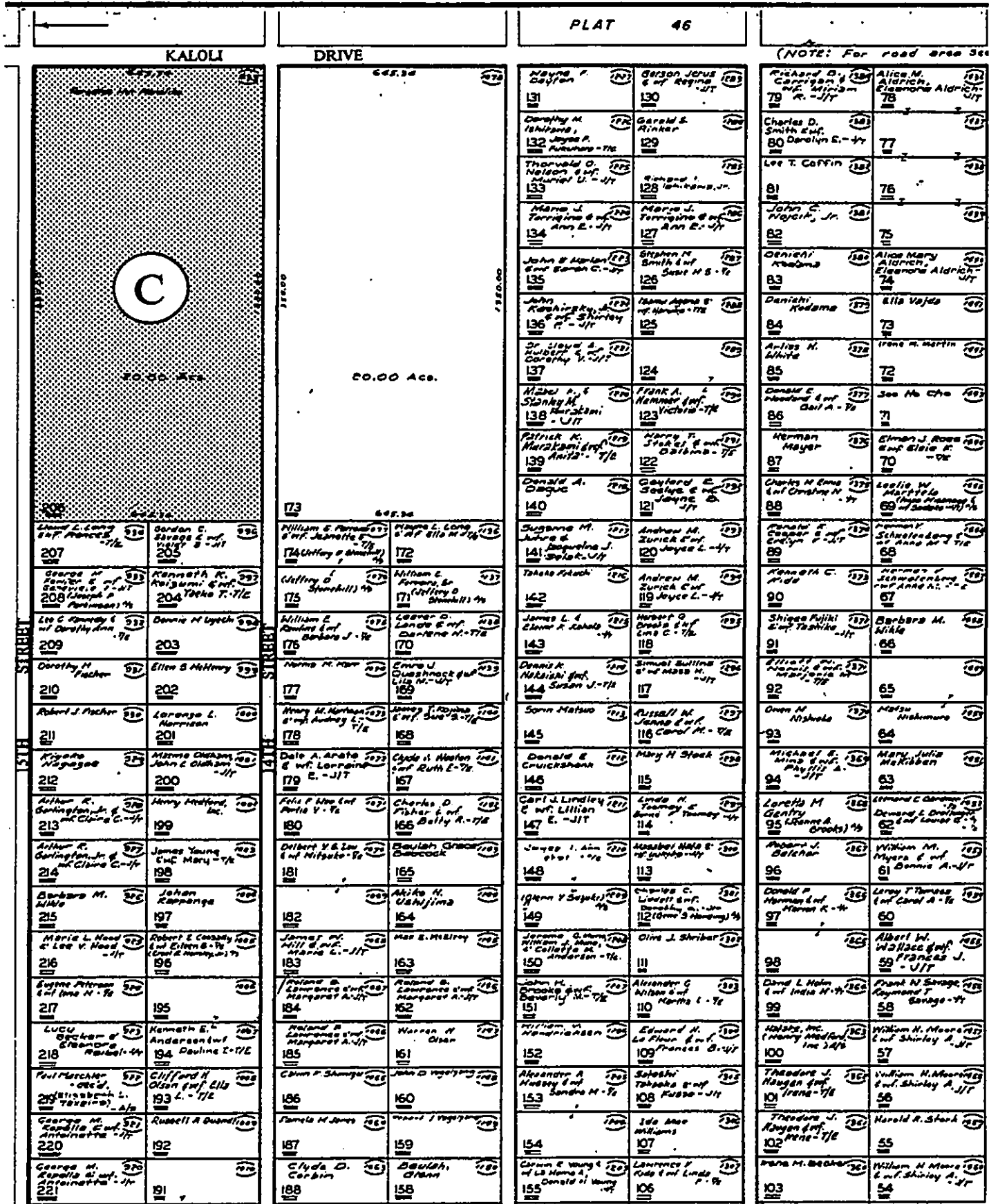
Site D in Keaau is located within a 43 acre parcel identified as TMK: 1-6-03:008, adjacent to Pahoa Highway on the south side of town (Figure 17, 18 and 19). The parcel is owned by W. H. Shipman Ltd. and is currently fallow sugar cane land. The trees are mainly *Macaranga* but there are mango (*Mangifera Indica*), coconut palms (*cocos nucifera*) and *Eucalyptus* near the perimeter areas of the site. These are remnants of the prior uses of the site. There are no known rare or endangered species which would be affected by development of a school facility at this site. There are no uses adjacent to this site.

The most appropriate location for the school site within the parcel appears to be adjacent to the small private road which runs parallel with and is adjacent to Pahoa Highway. Due to the slight slope over the site, some grading will be required especially for the playfields and larger buildings.

Site D is within the State Agricultural Land Use District and is adjacent to the State Urban Land Use District. This site is within a petition area under LUC Docket No. BR93-699/Office of State Planning, State of Hawaii for a change in designation from Agricultural to Urban Land Use District. The site is designated Low Density on the County General Plan and is within the County Agricultural Zoning District.

For purposes of this study, access to the site is assumed to be along the private road parallel with Pahoa Highway. This road will require improvements to address school access safety issues.

This area is served by the County Water Supply System. There appears to be sufficient area to provide an on-site wastewater treatment facility.



HAWAIIAN PARADISE PARK
 KEAAU II ELEMENTARY SCHOOL
 TMK 1-5-47 : 206 (15th - 14th Streets)
 Owned by Paradise Park Hui Hanalike

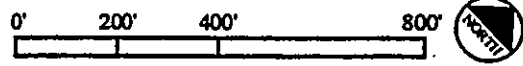


Figure 15



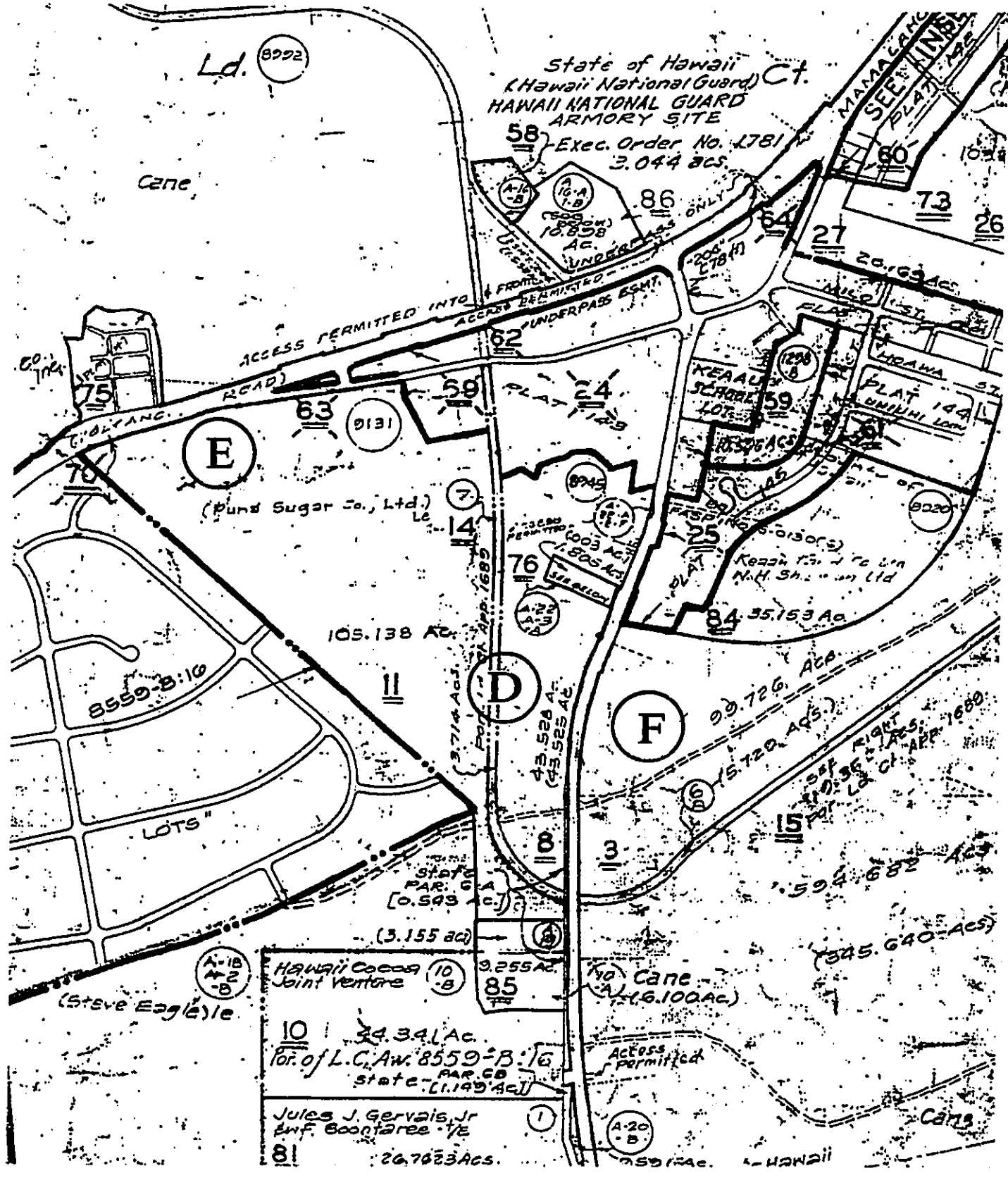
WESTERN BOUNDARY/KALOLI DRIVE



EAST VIEW ACROSS THE SITE

Site C - Paradise Park 15th - 14th Streets
KEAAU II ELEMENTARY SCHOOL

Figure 16



KEAAU
 KEAAU II ELEMENTARY SCHOOL
 Keaa II Sites Location Map

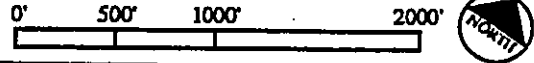
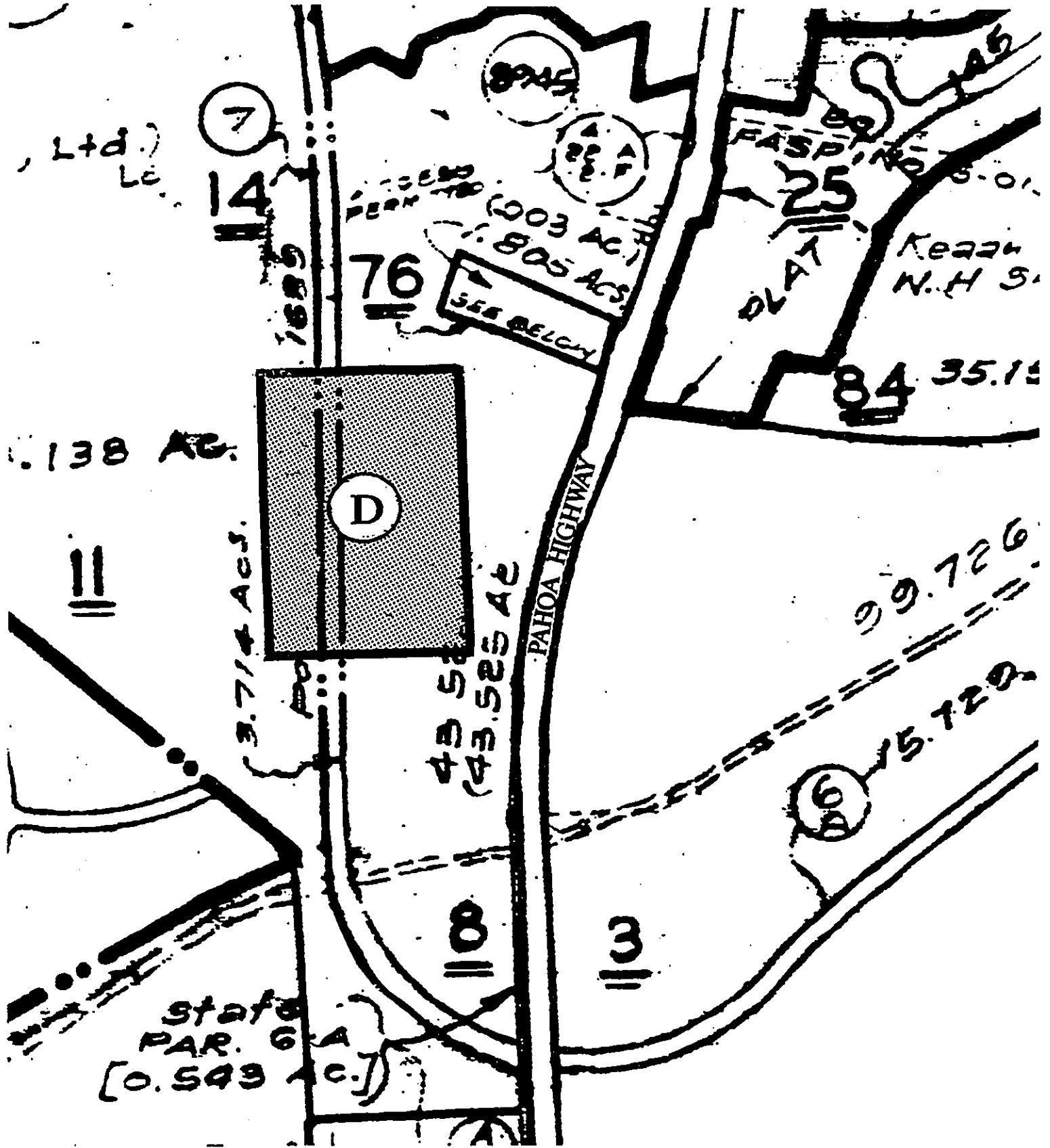


Figure 17



KEAAU
KEAAU II ELEMENTARY SCHOOL
TMK 1-6-03 : 8
Owned by W.H. Shipman Ltd.

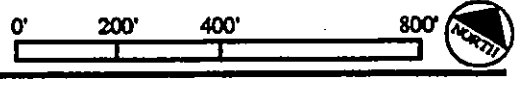


Figure 18



NORTHWESTERN BOUNDARY AND
PRIVATE ROAD FROM PAHOA HIGHWAY



INTERIOR VIEW OF SITE

Site D - Keaau
KEAAU II ELEMENTARY SCHOOL

Figure 19

Site E in Keaau is located within a 107 acre parcel identified as TMK: 1-6-03:011, adjacent to Volcano Highway on the edge of town (Figures 17, 20 and 21). The parcel is owned by W. H. Shipman Ltd. and is currently fallow sugar cane land. The site is covered with trees, grasses, and sugar cane. There are no known rare or endangered species which would be affected by development of a school facility at this site. An AMFAC subdivision is located on the Volcano-side of the site and the edge of Keaau Town is located on the other side of this site. The site is flat.

The most appropriate location for the school site within the parcel appears to be fronting and makai of the old Mamalahoa Road (in Keaau Town) rather than adjacent to Volcano Highway.

Site E is within the State Agricultural Land Use District and is adjacent to the State Urban Land Use District. This site is within a petition area under LUC Docket No. BR93-699/Office of State Planning, State of Hawaii for a change in designation from Agricultural to Urban Land Use District. The site is designated Low Density on the County General Plan and is within the County Agricultural Zoning District.

For purposes of this study, access to the site is assumed to be from the old Mamalahoa Road. This road will require improvements to address school access safety issues.

This area is served by the County Water Supply System. There appears to be sufficient area to provide an on-site wastewater treatment facility.

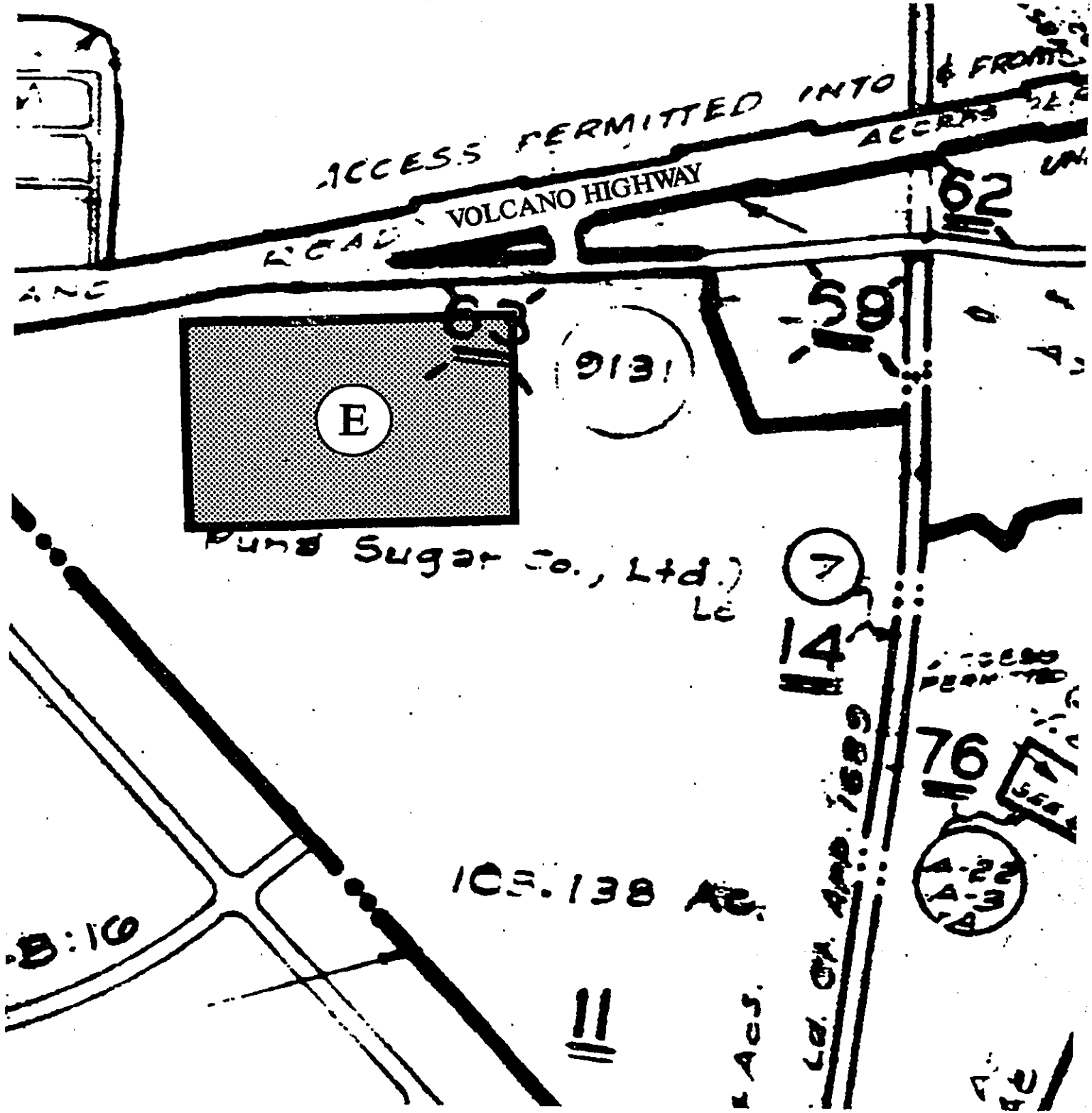
Site F in Keaau is located within a 100 acre parcel identified as TMK: 1-6-03:015, adjacent to Pahoa Highway on the edge of town (Figures 17, 22 and 23). The parcel is owned by W. H. Shipman Ltd. and is currently fallow sugar cane land. This site is covered with grasses and some sugar cane. A macadamia nut farm borders this site on its southern boundary. The proposed Keaau-Pahoa By-Pass Road will be located makai of this site. The site is flat and part of a large vacant agricultural lot.

The most appropriate location for the school site within the parcel appears to be fronting the private road which runs roughly perpendicular to Pahoa Highway.

Site F is within the State Agricultural Land Use District and is adjacent to the State Urban Land Use District. This site is within a petition area under LUC Docket No. BR93-699/Office of State Planning, State of Hawaii for a change in designation from Agricultural to Urban Land Use District. The site is designated Low Density on the County General Plan and is within the County Agricultural Zoning District.

For purposes of this study, access to the site is assumed to be from the private road which runs along the site's frontage. This road will require improvements to address school access safety issues and to meet County standards.

This area is served by the County Water Supply System. There appears to be sufficient area to provide an on-site wastewater treatment facility.



KEAAU
 KEAAU II ELEMENTARY SCHOOL
 TMK 1-6-03 : 11
 Owned by W.H. Shipman Ltd.

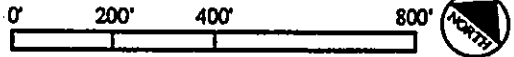


Figure 20



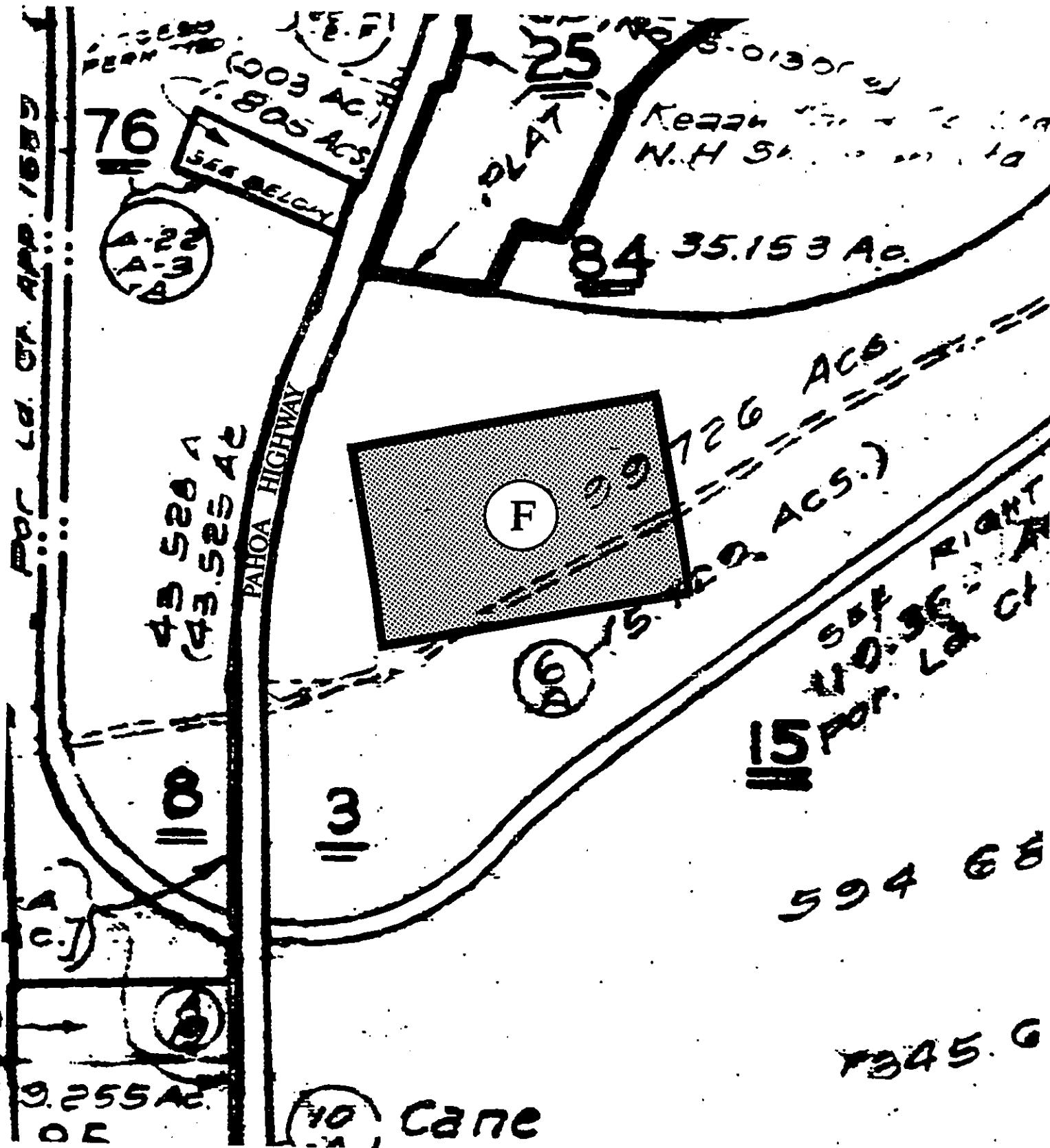
NORTH VIEW TOWARD VOLCANO HIGHWAY FROM SOUTHERN BOUNDARY



EAST VIEW ACROSS SITE FROM SOUTHERN BOUNDARY

Site E - Keaau
KEAAU II ELEMENTARY SCHOOL

Figure 21



KEAAU

KEAAU II ELEMENTARY SCHOOL

TMK 1-6-03: 3

Owned by W.H. Shipman Ltd.

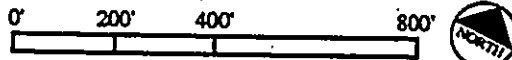


Figure 22



LOOKING EAST FROM NORTHERN BOUNDARY



SOUTHEAST VIEW FROM NORTHERN BOUNDARY

Site F - Keauu
KEAAU II ELEMENTARY SCHOOL

Figure 23

SECTION 5 - Description of
Site Evaluation Criteria

5.0 DESCRIPTION OF SITE EVALUATION CRITERIA

The following section describes the Site Evaluation Criteria which are based on standards established by DOE to assess the relative merits of candidate sites selected as possible locations for a new school. The Site Evaluation Criteria represents a wide range of considerations that are important in selecting an appropriate site for new school facilities.

The criteria are divided into three categories: Physical Criteria which compare the physical parameters important to site development and school operation such as environmental characteristics, roadways, utilities, and access; Community Criteria which evaluate school development in terms of governmental/land use compatibility and the relationship of the school to the surrounding community; and Cost Considerations compare the relative costs associated with school development and operations such as land acquisition, off-site and on-site improvements, and bus subsidies. A rating of Good, Fair, or Poor is assigned for the first two criteria, while a dollar amount estimate is made for cost considerations.

5.1 PHYSICAL CRITERIA

This set of criteria is used to evaluate the physical characteristics of the candidate sites, the availability of infrastructure, and the potential effects of the surrounding environment on school activities.

5.1.1 Site Characteristics

- **SIZE**

The Department of Education's requirement for an elementary school land size is 12 usable acres. A parcel may be a minimum of 8 useable acres if it is adjacent to a county park. Such an arrangement would require a joint-use agreement permitting DOE priority use of the designated park facilities during school hours. The need for a larger size site due to its slope, its parcel size or other considerations is less desirable because it adds costs in site acquisition and possibly for site improvements.

Good The site is the desired size, 8 to 12 useable acres depending on whether there is an adjacent park to meet the school's playground requirements.

Fair The site is larger than the requested size and the owner is willing to subdivide the appropriate acreage.

Poor The site is larger than the requested size and the owner is not willing to subdivide the appropriate acreage.

- **SLOPE**

The average slope of a site represents the degree of steepness. Topography affects the usability of a site and influences the location of various land uses. A school site must be level enough to allow easy adaptation for buildings, play areas and parking. Steep sites require additional grading which affects the construction and maintenance costs of development. School sites should be free from topographic hazards such as bluffs, pits, hazardous shorelines and landslides.

Good The average slope of the site is between 0 and 3 percent.

Fair The average slope of the site is between 4 percent and 6 percent.

Poor The average slope of the site is between 6 and 8 percent.

- **SHAPE**
The configuration of a site affects the design flexibility of a project. An irregular-shaped site may not be utilized efficiently and may restrict optimum placement of facilities and buildings. The length to width ratio of the site must not exceed the DOE standard of 2.5 to 1.0.
 - Good Length to width ratio 1.0:1.0 to 1.6:1.0.
 - Fair Length to width ratio 1.7:1.0 to 2.0:1.0.
 - Poor Length to width ratio 2.1:1.0 to 2.5:1.0.
- **GENERAL STABILITY FOR FOUNDATIONS**
This criteria relates to the suitability of the soil for use as fill material under roadways. The Soil Conservation Service Report R43, Soil Survey of the Island of Hawaii, State of Hawaii includes a rating system indicating suitability based on an interpretation of the following engineering parameters: compressibility, workability, stability, shear strength, erodibility, plasticity, and location of water table.
 - Good Soils have low shrink-swell potential, maintain bearing capacity when wet, and good workability.
 - Fair Soils have moderate shrink-swell potential, maintain some bearing capacity when wet, and fair workability.
 - Poor Soils have high shrink-swell potential, do not maintain bearing capacity when wet, and poor workability.
- **SOIL DEPTH FOR SITE WORK**
Soil and subsoil conditions affect the ease of development of a site. The soil should be suitable for excavation and site preparation for utility connections, and grading. Sufficient soil depth also reduces or eliminates the need to import fill for landscaping; thereby further reducing costs.
 - Good Soils strata consists of non-rocky soils with a depth to bedrock greater than five feet. The greater depth to bedrock facilitates construction of utility systems, roads and lot grading.
 - Fair Soils strata consists of two to five feet of non-rocky soil to bedrock.
 - Poor Soil strata consists of less than two feet of soil to bedrock.
- **AESTHETIC VALUE**
School sites with building facilities, playgrounds and other recreational open space are a prominent public facility in a community. Because of their prominence, it is important that the school enhance the community's environment and not be sited on an aesthetically important site or block scenic vistas.
 - Good The site is not an aesthetic asset to the community and will not interfere with scenic vistas when it is developed into a school.
 - Fair The site has little aesthetic value to the community or may partially obstruct scenic vistas when it is developed into a school.
 - Poor The site is an aesthetic asset to the community or will obstruct scenic vistas when it is developed into a school.

- **NATURAL BEAUTY**

Natural beauty is considered a positive attribute for a school site. Shade trees, attractive plants and rock formations, and pleasant views can be integrated into the school campus to enhance the educational experience and learning environment.

Good The site has some natural beauty in the form of trees, plants, rock formations or views which can be preserved and integrated into the school campus. The site is not crossed by overhead lines.

Fair The site lacks most of the desirable natural beauty but still has the potential of a beautiful campus through proper site design and landscaping. The site is not crossed by overhead lines.

Poor The site has no natural beauty whatsoever. The site is crossed by overhead lines.

5.1.2 Roadways and Utilities

Roads and utilities are mandatory requirements in developing a new school. Their importance as evaluation criteria lies primarily in the relative cost involved to serve the interim and ultimate needs of the school at each alternative site. The existence of adequate roadways and utilities, and the availability and proximity for connections minimizes costs associated with the new school.

Roadway costs may involve construction and/or improvement of an adequate road system as well as land acquisition costs for additional right-of-way if necessary. Utility costs may involve constructing new utility lines, providing additional lines or increasing size due to additional loads imposed by the school, extending existing lines to serve a site, and making connections on site.

- **ROADWAYS**

Roads serving a school site must be adequate to safely and efficiently accommodate automobile and bus traffic serving the facility. The right-of-way of existing roads must be wide enough to accommodate road improvements to meet county standards and to provide adequate shoulders, curbs, gutters, sidewalks, etc. The width and height clearance of roadways must also accommodate school buses.

Roadways and right-of-ways serving the school should be either publicly-owned or privately-owned that are currently open to the public. Privately-owned roads and right-of-ways that are not open to the public would require acquisition.

Good The site is served by at least one roadway adequate to meet county standards and the ultimate school needs. A minimum right-of-way of 56 feet is available.

Fair The site has substandard roadways by county standards but has sufficient right-of-ways to accommodate necessary improvements to meet the ultimate school needs. A minimum right-of-way of 44 feet is available.

Poor The site has substandard or no roadways and will require the construction of a roadway system; or the existing right-of-way widths are insufficient. The existing right-of-way is less than 44 feet.

- **WATER**

Water of safe quality must be available in sufficient quantity and under adequate pressure to meet the school's domestic and fire protection needs.

Good The site has or is within 500 feet of existing lines of adequate water pressure for school use and fire protection, adequate size of transmission lines, and storage capacity to meet ultimate school needs.

Fair The site is within 500 to 1,000 feet of adequate existing lines or has adequate service being developed to serve interim and ultimate school needs.

Poor The site is greater than 1,000 feet from adequate existing lines or has inadequate service and requires the development of a new system or extensive improvements to an existing system to meet ultimate school needs.

- **WASTEWATER**

The State Department of Health strongly recommends that the public wastewater system be utilized for school developments. However, the Keaau, Kurtistown and Hawaiian Paradise Park areas do not have public wastewater systems, therefore, construction of individual on-site systems will be required. Regardless of the type of system, wastewater generated by the school facility must be disposed of in accordance with the standards set by the State of Hawaii Department of Health. The Department of Health is concerned about the possible adverse impacts that on-site disposal methods may have on the underlying potable ground water aquifer. However, the DOH has approved of a leech field disposal method. A site which has topsoil is an important characteristic for the filtration process of a leech field system.

Although not finalized at this writing, two discussions are taking place concerning the provision of wastewater treatment systems. The first is the possible construction of a wastewater treatment plant by W. H. Shipman Ltd. should land use approvals be granted and development around Keaau Town begin. The other is the possible extension of the sewer line from Hilo to Keaau.

Good The site has adequate space and good soil conditions for a septic tank and leech field which would meet ultimate school needs.

Fair The site has adequate space and acceptable soil conditions for a septic tank and leech field which would meet ultimate school needs.

Poor The site has inadequate space and poor soil conditions for a septic tank and leech field which would meet ultimate school needs.

- **DRAINAGE**

Drainage facilities should convey stormwater from the school site without increasing runoff at other locations. Without adequate provisions for drainage, stormwater runoff can affect the safety and convenience of school users and water damage to improvements can occur.

Good Rain runoff generated on-site is not expected to increase significantly or terrain and soil conditions are capable of handling anticipated flows; runoff from adjacent lands is not expected to require drainage improvements to the site. Only minor drainage improvements are needed.

Fair Rain runoff generated on-site may increase and require moderate drainage improvements to the site; moderate drainage improvement may be needed to handle runoff from adjacent lands.

Poor Rain runoff generated on-site is expected to increase significantly and warrants the construction of a full drainage system or runoff from adjacent lands is expected to require significant drainage improvements to the site.

- **POWER AND COMMUNICATION**

Electricity and telephone service are essential for a school to operate properly. The distance and ease of extending the services to a particular site can be a factor in site selection. A 12 kv electric distribution line is adequate to service an elementary school.

Good The site has or is proximate to adequate existing power and communications service is available to meet the school needs.

Fair The site will require some off-site improvements which will provide adequate power and communications to serve the interim and ultimate needs of the school.

Poor The site has insufficient power or communications available and will require extensive off-site improvement of these services to serve the school needs.

5.1.3 Accessibility

Accessibility to the school must be evaluated for functional adequacy as well as safety.

- **PEDESTRIAN ACCESS**

Pedestrian access to the school site must be adequate to permit the convenient, safe movement of students, faculty and staff from outside the school site and within the various areas of the school grounds and facilities. Students should not be inclined to take short cuts through private property.

Good The site will have relatively unrestricted pedestrian access along three sides.

Fair The site will have relatively unrestricted pedestrian access along two sides.

Poor The site will have restricted pedestrian access or access can only be provided on one side.

- **PEDESTRIAN SAFETY**

Pedestrian traffic should ideally be separated from vehicular traffic by providing sidewalks along roads, and over/underpasses across heavy traffic lines. Pedestrian safety is a primary concern and the necessity for extensive improvements (walkways, traffic signal, overpasses) may be a significant cost factor.

Good Adequate and safe walkways or shoulders to the site are available.

Fair Safe walkways and shoulders to the site can be provided along the school access road(s).

Poor The site may require traffic signals and/or pedestrian overpasses in addition to walkways/shoulder improvements to ensure safe pedestrian access; and/or is adjacent to a major freeway.

- **AUTOMOBILE ACCESS**

Adequate ingress and egress for vehicles is important both for long-term and short-term traffic. To minimize conflict and congestion, the site should have roadways along at least two sides and the roads should be through-streets. Cul-de-sacs or dead end streets are not recommended because they result in traffic congestion. Flag lots, which have only one road which serves as both ingress and egress, severely hamper flexibility in designing on-site traffic patterns (ingress, egress, drop-off and parking).

Good At a minimum, the site will have through streets along one short side and one long side.

Fair The site will have through streets along one long side or two short sides.

Poor The site will have a through street along one short side only or is served by cul-de-sacs or dead end streets, or is a flag lot.

- **TRAFFIC SAFETY**

Adequate roadways without excessive and dangerous gradients, curves or intersections are important for traffic safety. Roadways must be capable of handling the heavy traffic at school opening and closing hours and should be through streets, but not highways or major roads passing through the service area.

Good Access to the site is via a through street, but not a major street or highway, without dangerous conditions, and is currently or potentially capable of handling heavy traffic.

Fair Access to the site is via a major street without dangerous conditions, which is capable or potentially capable of handling heavy traffic.

Poor Access to the site is via a street with dangerous, congested conditions, a dead end street, or the main access is directly off of a heavily traveled, high speed highway.

5.1.4 Environment

The impact of external factors is important in site selections, particularly if there are negative externalities. Negative externalities may be annoying, disturbing, uncomfortable and unsafe conditions which can hamper school activities. If necessary, mitigation methods must be incorporated into the design and construction of the school. This can be costly. The possibility of negative externalities from potential land uses of currently vacant lands must also be considered.

- **HIGHWAY/ROADWAY NOISE**

Motor vehicle noise from major roads, highways, and truck routes can often be at a level which interferes with the ability of students and teachers to communicate effectively. For purposes of this study, a major highway is one with posted speed limits of 35 miles per hour or more. A freeway is a controlled access highway with posted speed limits of 45 miles per hour or more. A truck route is designated as such by the Department of Health.

When a school facility is located in close proximity to major roadways, mitigation measures such as the installation of air conditioning may be required so windows can remain closed. The measured distance to be used in the application of the Highway Noise Criteria, shall be the distance from the center of the traffic lane closest to the building setback line of the site.

Good The site is more than 1,500 feet from major highways, freeways, or truck routes.

Fair The site is within 500 to 1,500 feet away from major highways, freeways and truck routes.

Poor The site is within 500 feet of a major highway, freeway or truck route.

- **AIRCRAFT NOISE**

Aircraft noise presents the same problems as highway noise. The site's proximity to an airport or air base and to normal aircraft flight patterns is an important consideration in site selection.

Good The site is more than one mile away from the normal aircraft flight patterns in to and out of airports and air bases.

Fair The site is far enough away (0.5 to 1 mile) from the normal flight patterns to keep the noise level down to a level where normal conversation can be heard.

Poor The site is directly under (0 to 0.5 mile) the approach and take-off pattern.

- **RAINFALL**

Elementary school complexes often consist of several physically separate classroom and support facility buildings. In areas with median annual rainfall greater than 40-inches, covered walkways and playcourts are required by the Department of Education.

Good The site has a median annual rainfall less than 30 inches.

Fair The site has a median annual rainfall between 30 and 40 inches.

Poor The site has a median annual rainfall greater than 40 inches.

- **INDUSTRIAL AND AGRICULTURAL NUISANCES**

School sites should be set distinctly apart from industrial and active agricultural land uses and their inconveniences, with prevailing winds fully considered. Noise, odors, dust, smoke, flies and other nuisances related to industrial and agricultural activities can cause considerable discomfort and can hamper school activities. Such nuisances can also be periodic and within limits of human toleration. As with highway and aircraft noise, mitigation methods must be employed to minimize the effects of agricultural and industrial nuisances on the activities of the school.

Good The site is free from noise, dust, odors, smoke, and other nuisances created by industrial or agricultural activities.

Fair The noise, dust, odors, smoke, and other nuisances from industrial or agricultural activities are at worst periodic and well within the limits of human toleration.

Poor The above mentioned nuisances cause considerable discomfort and hamper school activities.

- **AIR QUALITY**

The air quality of the Puna area of the Big Island is generally good except for volcanic eruptions. All sites have similar air quality characteristics except for proximity to highways which may have an increase in pollution during rush hour traffic.

Good There are no adjacent sources of significant air pollution or odors within 500 feet of the property boundary.

Fair Significant sources within 500 feet of the property boundary.

Poor Significant sources on adjacent locations.

- **TOXIC WASTE**

Toxic wastes in or on adjacent lands make a parcel undesirable as a school site. In addition to the safety issue, clean-up costs and other mitigation measures would increase site development costs.

Good No visible sign of hazardous waste on the site, adjacent to the property boundary, or sources within 1000 feet.

Fair No visible sign of hazardous waste on the site, adjacent to the property boundary, but possible sources within 1000 feet.

Poor Visible sign of hazardous waste on the site or adjacent to the property boundary.

5.2 **COMMUNITY CRITERIA**

This set of criteria is used to evaluate the compatibility of each candidate site with State and local land use designations, existing land use, and the surrounding community.

5.2.1 **Government**

- **STATE LAND USE**

All lands in the State are placed into one of four Land Use Districts to help assure that the land is used for the purposes to which they are best suited. In general, schools are permitted uses within the State Urban Land Use District. A Special Permit or a State Land Use District Boundary Amendment is required for a school in either the Rural or Agricultural Districts. Lands within the Agricultural District and adjacent to the Urban District are preferred over Agricultural District Lands surrounded by other Agricultural lands. It is the policy of the DOE not to establish schools within the Conservation Land Use District.

Good The site is within the State Urban Land Use District.

Fair The site is within the State Rural Land Use District, or within the Agricultural District and adjacent to the State Urban Land Use District.

Poor The site is within the State Agricultural Land Use District and is not adjacent to the State Urban Land Use District.

- **COUNTY GENERAL PLAN**

The County General Plan establishes the long range goals and policies which guide comprehensive development and appropriate use of land resources in the County.

Good The site is designated Low or Medium Density Urban.

Fair The site is designated Urban Expansion.

Poor The site is designated Resort, Conservation, Industrial, Agricultural, Orchard, or Open Area.

- **COUNTY ZONING**

The County of Hawaii Zoning Ordinance establishes the Zoning Districts for the County and delineates the respective types of uses permitted in each District.

Good The site is zoned Residential.

Fair The site is zoned Agricultural or Unplanned.

Poor The site is zoned Hotel, Commercial, Resort, Industrial or Open.

5.2.2 Community Effects

- **DISPLACEMENT**

In changing the existing use of a site to a school use, there should be minimum disruption to the existing community. In particular, the site should be acquired and developed with minimum displacement of any families, businesses or farms. Relocation of existing people and businesses may bring about undesirable impacts on the individuals directly affected as well as the community. Additional time and expense is also involved when relocation is necessary.

Good The site is vacant and unused and may be acquired without relocating any family, farm or business.

Fair The site will require relocation of a farm or business or family.

Poor The site cannot be acquired without the relocation of farms, businesses, or more than one family.

- **EXISTING USE**

The acquisition of a site for school use should result in a minimum amount of disruption to the pattern of living within the community and the area in which the site is located. Development of the site with school facilities must not result in the destruction of any cultural, historic or scenic building or site.

Good The site is vacant and unused.

Fair The site is being used for government agencies or institutions.

Poor The site is being used for agriculture, residences or private businesses.

- **INTERFERENCE WITH INSTITUTIONS**

A school site should be located at a sufficient distance from hospitals, rest homes and other institutions that generally require "quiet zones", so that occupants of these facilities will not be disturbed by the noise and activity of large groups of children. According to the DOE, elementary schools should also be physically separated from intermediate and high school students to avoid the daily contact and influence of older students on younger children.

Good The site is greater than 0.5 miles from hospitals, rest homes, or other institutions which may be disturbed by a large group of students.

Fair The site is 0.25 to 0.5 miles from any hospitals, rest homes, or other institutions which may be disturbed by a large group of students.

Poor The site is adjacent to hospitals, rest homes, or other institutions which may be disturbed by a large group of students.

- **AGRICULTURAL LANDS**

Productive agricultural lands are a valuable resource in Hawaii and efforts are being taken to preserve them. The University of Hawaii Land Study Bureau has classified agricultural lands by productivity ratings A, B, C, D, E, with A representing the highest class of productivity and E the least. Urban lands, designated as U, are not rated, but are considered to have low productivity. In selecting a school site, lands with low productivity ratings are desired.

Good The site is located on land with very poor (E) productivity rating, or land designated Urban.

Fair The site is located on land with fair (C) to poor (D) productivity rating.

Poor The site is located on land with very good (A) to good (B) productivity rating.

- **LAND OWNERSHIP**

The land ownership of alternative sites can significantly affect the time frame for land acquisition. "Timing" in site acquisition is of concern to the Department of Education, as acquisition must occur early enough to allow for construction time to meet DOE's scheduled school opening date. The Keaau II Elementary School opening is projected for September of 1997.

Land ownership considerations include the type of landowner (government, private business, or individual) and the number of different landowners for a particular candidate site. A State agency may typically acquire State land for a public use within a fairly predetermined, predictable time frame due to specific and known procedural requirements. Acquisition of private property on the other hand, may be much more complicated. Negotiation and/or condemnation procedures or the possible lease and deed restrictions on private land may delay acquisition to the point that it significantly delays construction. As the number of property owners increase the acquisition process becomes more complex.

Good The site is a vacant parcel owned by the State of Hawaii or Hawaii County with no leases or ownership encumbrances on the site.

Fair The site is owned by one individual, corporation or partnership and the owner is willing to dedicate the site at no cost to the State.

Poor The site is owned by two or more individuals, corporations, or a partnership.

- **PROXIMITY TO STUDENT POPULATION**

Elementary schools should ideally be located near the center of the service area or near the major concentration of dwelling units in the service area. An optimum walking distance of 0.5 mile is recommended for elementary school children.

Good The site is within reasonable walking distance (0.5 mile) of 75% of the students.

Fair The site is within reasonable walking distance (0.5 mile) of 50% to 75% of the students.

Poor The site is within reasonable walking distance (0.5 mile) of less than 50% of the students.

- **TRAFFIC FLOW**

Figure 24 illustrates three work bound traffic flow zones. The candidate sites are rated on the preference that school bound traffic should coincide as much as possible with work bound traffic from the school's service area. For the purposes of this study, it is assumed that the majority of "work bound" traffic flows in the direction from Paradise Park and Kurtistown areas toward Keaau and further toward Hilo. On the Figure, the inner most circle (Zone I) represents the area with the highest concentration of work bound traffic flow that coincides with school bound traffic. Therefore, the heaviest volume of work bound traffic will occur in and around Keaau Town. The area and boundaries of the zones are approximations. A student survey of Keaau Elementary students and where they live (March 1993) served as a guide for determining the Zone locations.

Good The candidate site is located within Traffic Flow Zone I. This Zone would contain a significant amount of work bound traffic that would coincide with school bound traffic if the school were located within this Zone.

Fair The candidate site is located within Traffic Flow Zone II. This Zone would contain a moderate amount of work bound traffic that would coincide with school bound traffic if the school were located within this Zone. For Site B, school bound traffic from Keaau and Kurtistown would have to back-track towards the school, against work bound traffic flow, if the school were sited there. For Site E, school bound traffic from Paradise Park would have to "back-track" somewhat against work bound traffic.

Poor The candidate site is located within Traffic Flow Zone III. This Zone would contain a minimal amount of work bound traffic that would coincide with school bound traffic if the school were located within this Zone. For Sites A and C, work bound traffic (Hilo-direction) from Keaau and Paradise Park would have to back-track towards the school for a significant distance if it were sited at either of these locations, therefore the majority of work bound traffic would not coincide with school bound traffic.

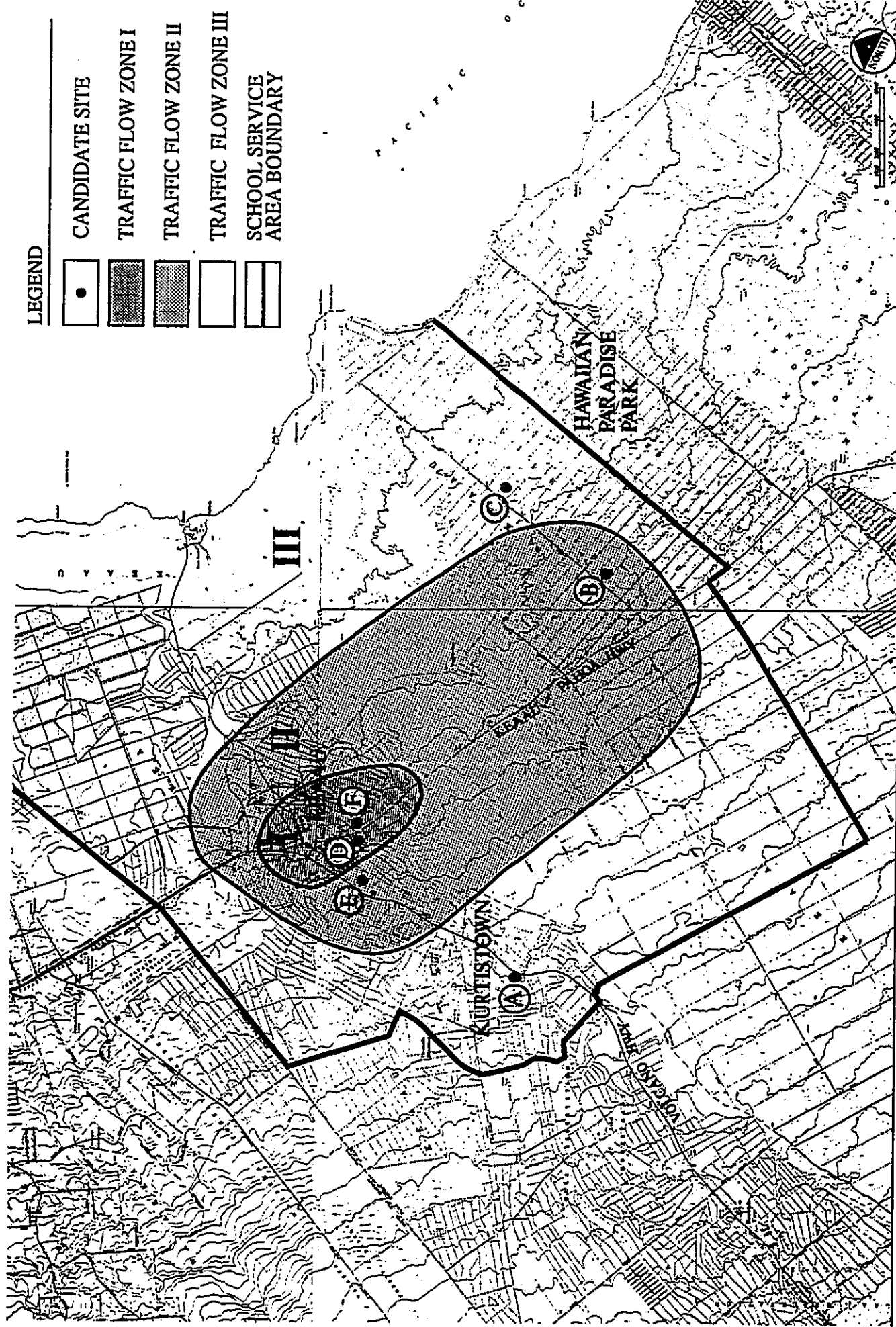


Figure 24

KEAAU II ELEMENTARY SCHOOL
Traffic Flow

5.3 COST CONSIDERATIONS

A major consideration in the selection of a new school site is the relative costs associated with site acquisition and development. To further compare the relative merits of each candidate site, cost estimates are made for comparative land value, off-site improvements, on-site improvements and busing subsidies. The estimates are prepared to permit comparison of the costs associated with each site and are not intended to reflect actual expected expenditures. Cost estimates for factors which are approximately equal for all sites are not included because the overall cost figures would not be affected.

5.3.1 Comparative Land Value

For comparison purposes, land values are based on the Hawaii County Real Property Tax Office 1993 assessed values. Realizing the limitations of assessed value to reflect potential market costs, the current market price of the Kurtistown site was used to determine a "factor" which approximates the difference between this parcel's actual market price and its 1993 assessed value. This "factor" attempts to take into consideration the size of the parcel, the zoning and the parcel's proximity to an urban area as these characteristics relate to a parcel's market value. The other sites' assessed values were multiplied by the "factor" in an attempt to estimate the other sites' approximate market value. None of the other sites are listed for sale. Detailed calculations are provided in Section 6.0.

Other characteristics which affect assessed value and market price include designation for agricultural use, which is generally assessed at a lower rate than urban land. All of the six sites are fallow lands which were in agricultural use at one time. Four of the six sites (A, D, E, F) are adjacent to or in close proximity to urban areas. It is possible that the actual acquisition costs for these sites in particular could be significantly higher. All of the six candidate sites are presently vacant so that no expenditures would be required for occupant relocation.

These estimates are for comparison purposes only and are not assumed to accurately reflect the current market value of the site. Actual acquisition costs will be determined by negotiations based on land appraisal reports or by the courts in condemnation proceedings if an agreement cannot be reached.

5.3.2 On-Site Improvements

The development of a new elementary school will require on-site improvements which may include clearing and grading of the site, and construction of drainage facilities, a wastewater treatment system and water facilities. Costs associated with construction of buildings, play areas, internal accessways, and other standard school facilities would be approximately the same for each site and are therefore not considered in the cost comparisons.

5.3.3 Off-Site Improvements

The development of the new elementary school may also require extending, upgrading or new construction of utilities, roadways, sidewalks, or drainage facilities to serve the school site. Cost estimates are made for comparison purposes only and are not intended to reflect the actual future expenditure requirements.

5.3.4 Bus Subsidy Costs

An allowance for bus transportation is provided by the State for students residing more than one mile in road distance from the school. The bus subsidy costs for each candidate site are based on the estimated number of students who would qualify for the subsidy and the amount of subsidy per bus.

Based on Department of Accounting and General Services figures, a present subsidy rate of \$140 per bus per day is assumed for purposes of this comparison. The annual cost is determined by assuming 175 days per school year, a maximum passenger capacity of 60 students per bus, and 2 round trips per bus per day. School enrollment projects are based on an opening enrollment of 550 in 1997, increasing at a steady rate to the design enrollment of 945 during an assumed 20 year school service life.

SECTION 6 - Evaluation of Candidate Sites

6.0 EVALUATION OF CANDIDATE SITES

The Site Selection Study has identified six candidate sites as potential locations for the Keau II Elementary School using the multi-level screening process described in Section 4.0. In the following section, a detailed analysis is presented in which each candidate site is evaluated with regards to the DOE's standard Site Evaluation Criteria described in Section 5.0. Each candidate site is assigned a rating of either Good, Fair, or Poor for characteristics in the Physical Criteria and Community Criteria Categories. Dollar amount estimates are made for the Cost Criteria.

The candidate site ratings and cost estimates are summarized in Tables 4 and 5 respectively at the end of this section. The Evaluation Summary Table 4 was prepared so that the relative merits of each site can be easily compared. These ratings and costs estimates are intended for use as a basis for comparing the relative advantages and disadvantages of each site in order to help facilitate final selection of a site. The evaluation is for comparison purposes only and no attempt is made to recommend a particular site over another.

6.1 PHYSICAL AND COMMUNITY CRITERIA WITH EQUAL RATINGS

In evaluating each site against the physical and community criteria it was found that for each of the following criteria, all the sites had equal ratings. Therefore, these criteria are described below and are not included in the individual site evaluation descriptions for each site as they have no impact on the ultimate rating.

Physical Criteria

SHAPE

All of the sites have a "Good" configuration or can be configured to meet DOE standards of a length to width ratio 1.0:1.0 to 1.6:1.0.

GENERAL STABILITY FOR FOUNDATIONS

All of the sites have good characteristics for foundation stability.

AESTHETIC VALUE

All sites are not an aesthetic asset to the community which would be lost should a school be built on the parcel. School facilities on any of these parcels would not significantly interfere with scenic vistas when developed.

NATURAL BEAUTY

All of the sites have some natural beauty features in the form of trees, plants rock formations or views which could be integrated into a school campus.

POWER AND COMMUNICATION

All of the sites have adjacent power and communication lines which are of adequate capacity to meet the ultimate needs of the school.

AIRCRAFT NOISE

All of the sites are a minimum of 6.5 miles away from the Hilo Airport.

RAINFALL

All of the sites have a median annual rainfall greater than 40 inches.

DISPLACEMENT

All of the sites are vacant and unused and may be acquired without relocating any family, farm or business.

EXISTING USE

All of the sites are currently vacant and unused.

INTERFERENCE WITH INSTITUTIONS

All of the sites are greater than 0.5 mile from hospitals, rest homes, or other institutions which may be disturbed by a large group of students.

PROXIMITY TO STUDENT POPULATION

None of the sites are located within a reasonable walking distance (one-half mile) of at least 50% of the students. As illustrated in Appendix A, a survey of Keaau Elementary School students conducted in March 1993 by the school principal shows that less than 50% of the students live in any one location such as Keaau, Kurtistown, Paradise Park, Orchidland Estates, or any other location. Therefore none of the candidate school sites would be within one-half mile walking distance of at least 50% of the students.

6.2 SITE EVALUATIONS

6.2.1 Evaluation of Site A - Kurtistown

This site is located in Kurtistown. It was recommended by members of the Kurtistown community for consideration as a possible site for the elementary school.

SIZE

Site A is TMK 1-7-03:017 and is 8.33 acres in size. The candidate site is adjacent to a 6.84 acre parcel which is partially used as a county park. The site is the minimum size because an adjacent park can be used to meet the school's playground requirements. However, given the need for an on-site wastewater treatment facility and the steepness of the terrain, the 8.33 acres will not be entirely useable. The combined usage of the two parcels may accommodate the necessary design requirements.

Rating: GOOD

SLOPE

The average slope of the site is between 6 and 8 percent, sloping downward from the mauka property line toward the makai property line along Volcano Highway. The site is mostly level at the makai boundary with two small terraces rising toward the rear property line. The first terrace area is approximately in the middle of the site and the final terrace is at the highest point is along the mauka boundary.

Rating: POOR

SOIL DEPTH

The site is currently vacant but was formerly sugarcane lands. The soil on the site is predominantly Keaukaha extremely rocky muck (rKFD) with small areas of Oloo silty clay loam (OaC). The Keaukaha soil cover over underlying pahoe-hoe lava is probably very shallow (less than 10 inches thick) with some rock outcrops. Oloo soil is usually about two feet thick and overlays Aa lava.

Rating: FAIR

ROADWAYS

The site is adjacent to Volcano Highway (Highway 11) which is a major highway accommodating vehicular traffic between Hilo and Hawaii Volcanoes National Park, a popular visitor destination. Roadway width and capacity appears more than adequate for the proposed school.

Rating: GOOD

WATER

An existing 6-inch water main along Volcano Highway and a 300,000 gallon reservoir would provide water service to the school site. However, the existing County water system available to service this potential school site is not capable of providing adequate fire flows that meet County standards. A new reservoir and a 12-inch water main between the new reservoir and the school site would have to be constructed to provide adequate fire protection.

Rating: FAIR

WASTEWATER

Because there are no existing sewers or treatment plants to serve any of the candidate school sites, the wastewater disposal method common to all sites will be an on-site treatment and disposal facility consisting of septic tanks and subsurface leaching systems. Although the soil is permeable, the steeper slopes and smaller useable area make this site the less suitable for on-site wastewater treatment and disposal systems.

Rating: POOR

DRAINAGE

There are no existing drainage facilities at any of the sites. Although the soils on this site are rapidly permeable, the steepness of the site is expected to cause an increase in the runoff generated on-site. This runoff would tend to flow off-site toward the highway and/or the existing adjacent park. Some drainage improvements may be required to handle runoff from adjacent properties. There is no erosion hazard.

Rating: POOR

PEDESTRIAN ACCESS

Pedestrians have restricted access to the site. The parcel fronts the Volcano Highway which has a high volume of traffic. The rest of the site is surrounded by privately owned land on two sides and the county park on the third side. Space for sidewalks is available but is not ideal because it encroaches into the roadway right-of-way.

Rating: POOR

PEDESTRIAN SAFETY

Currently there are no existing walkways to the site. Adding walkways only along the school frontage may not be sufficient for pedestrian safety. For students who may have to cross Volcano Highway, the sight distance on the inside of the highway curve may not be adequate, further improvements may be necessary.

Rating: POOR

AUTOMOBILE ACCESS

The site is accessible from a major highway. A direct school driveway intersection with Volcano Highway would be required to bring traffic onto the site. The site will have a through street along one short side only.

Rating: POOR

TRAFFIC SAFETY

Access to the site is via a heavily traveled highway. The intersection of the school driveway with Volcano Highway would be located on the outside of the highway curve. The sight distance appears adequate. The downhill grade for Hilo-bound traffic however, could encourage traffic speeds greater than the posted speed limit. Highway improvements to mitigate impacts on road capacity and traffic safety may require highway widening to accommodate a left turn storage lane and possibly acceleration and deceleration lanes at the new intersection. A larger interior parking and vehicular storage lane is needed to bring cars to the site to avoid stacking along a high speed highway.

Rating: POOR

HIGHWAY/ROADWAY NOISE

The site is within 500 feet of Volcano Highway.

Rating: POOR

INDUSTRIAL/AGRICULTURAL NUISANCES

The site is adjacent to a privately owned plant farm along it's mauka boundary. Although the farming activities are relatively small in nature, the owners do apply pesticides and herbicides regularly. The school site has the potential for experiencing wind drifting of these chemicals should the wind blow from a north, north eastern direction.

Rating: FAIR

AIR QUALITY

The use of pesticides adjacent to the site is considered an air quality hazard. Location immediately adjacent to a congested highway also affects air quality negatively.

Rating: POOR

TOXIC WASTE

The use of pesticides and herbicides adjacent to the site is considered a toxic waste hazard.

Rating: POOR

STATE LAND USE

The site is in the State Agricultural Land Use District and is adjacent to the State Urban Land Use District.

Rating: FAIR

COUNTY GENERAL PLAN

The site is designated Low Density.

Rating: GOOD

COUNTY ZONING

The site is zoned Single-Family Residential; RS-20.

Rating: GOOD

AGRICULTURAL LAND CLASSIFICATION

The site is located on land classified as C178 which has a University of Hawaii Land Study Bureau productivity rating of fair.

Rating: FAIR

LAND OWNERSHIP

The site is under the ownership of a single corporation, AMFAC/JMB Development Corporation. However, acquisition of the site would also require coordination with the County for use of the adjacent county park.

Rating: POOR

TRAFFIC FLOW

This site is within Traffic Flow Zone III as depicted in Figure 24 on page 5-12. This Zone would contain a minimal amount of work bound traffic which would coincide with school bound traffic if the school were located within this Zone.

Rating: POOR

6.2.2 Evaluation of Site B - Hawaiian Paradise Park between 25th and 26th Streets on Kaloli Drive

This site is located in the Hawaiian Paradise Park Subdivision. It was recommended by Paradise Hui Hanalike (the community association which owns the parcel) for consideration as a possible site for the elementary school.

SIZE

Site B is TMK 1-5-39:267 and is 20 acres in size. Although the site is actually larger than the minimum required, the association is willing to divide out the necessary lot size.

Rating: FAIR

SLOPE

The average slope of the site is approximately 0 to 3 percent. The site is mostly level.

Rating: GOOD

SOIL DEPTH

The soil type is pahoehoe lava (rLW) with almost no soil covering to support vegetation. Consequently top soil would need to be imported for lawn, playground, and landscape areas. The existing ground should provide a solid foundation for facilities, roads and parking areas.

Rating: POOR

ROADWAYS

The site is bordered on three sides by existing roads. Kaloli Drive, a paved two-lane road that intersects with Pahoa Highway (Highway 130), would be the primary vehicular route to the school site. This site is approximately 0.68 miles from Pahoa Highway. The other two side streets, (25th and 26th) are minor roads, currently unpaved.

Kaloli Drive is a main road serving Hawaiian Paradise Park, however it is not built to County standards and does not have sidewalk or walkways. This is a private road which is open to the public and although it does not meet County standards, it appears adequate for an elementary school site presently, based on roadway width, right-of-way and relatively light traffic. The two side streets bordering the school should be paved, at least along the length of the school site boundary. As the subdivision grows and more vehicular traffic is generated in the future, road improvements to upgrade Kaloli Drive to County standards for a collector street with sidewalks or walkways may be warranted.

Rating: FAIR

WATER

There is presently no public or private water system in Hawaiian Paradise Park. Residents have individual water catchment systems. The nearest municipal water system is a 12-inch main located along Pahoa Highway (Highway 130), a distance of approximately 3,600 feet from this site. A 12-inch main would have to be extended from the existing main to provide adequate water service. Fire protection may not be adequate because the County's water reservoir for this service area is located approximately seven miles away with an 8-inch transmission main segment in between. An 8-inch main is normally too small for the required 2,000 gallons per minute fire flow rate. If so, the existing 8-inch main would need to be replaced by a 12-inch main or supplemented with a parallel 8-inch main.

Rating: POOR

WASTEWATER

Because there are no existing sewers or treatment plants to serve any of the candidate school sites, the wastewater disposal method common to all sites would be an on-site treatment and disposal facility consisting of septic tanks and subsurface leaching systems. On-site treatment and disposal utilizing septic tanks and leaching systems would technically work on this site because of the permeable subsurface and flat terrain. Although this site has adequate space, the soil conditions are not ideal as there is basically no topsoil, only lava. These conditions provide less filtration. However, the Department of Health has approved of past leach field systems in Paradise Park.

Rating: FAIR

DRAINAGE

On-site runoff is expected to be contained within the site without significant drainage improvements because of the flat terrain and very permeable soil. Run-off from areas outside the school site is not likely to cause any problems. There is no erosion hazard.

Rating: GOOD

PEDESTRIAN ACCESS

Students living nearby could walk to school along the three roads bordering the site.

Rating: GOOD

PEDESTRIAN SAFETY

Although there are no existing sidewalks or paved walkways, there is room in the shoulder areas outside of the road pavement. Vehicular traffic is relatively light and there are no major roads or highways near the school site.

Rating: GOOD

AUTOMOBILE ACCESS

Primary vehicular access to the school could be provided by driveways directly into the school grounds from Kaloli Drive. The sight distance appears to be satisfactory. Secondary access could be added by driveways into school grounds from 25th and 26th Streets. The site will have through streets along one short side and one long side.

Rating: GOOD

TRAFFIC SAFETY

Due to the condition of straight roads bordering the site and relatively light vehicular traffic typical of interior subdivision roads, traffic safety is considered good.

Rating: GOOD

HIGHWAY/ROADWAY NOISE

The site is approximately 3,600 feet away from Pahoia Highway (Highway 130).

Rating: GOOD

INDUSTRIAL/AGRICULTURAL NUISANCES

There are no active industrial or agricultural activities adjacent to or near the site.

Rating: GOOD

AIR QUALITY

There are no adjacent sources of significant air pollution or odors within 500 feet of the property boundary.

Rating: GOOD

TOXIC WASTE

There is no visible sign of hazardous waste on the site, adjacent to the property boundary, or sources within 1,000 feet.

Rating: GOOD

STATE LAND USE

The site is in the State Agricultural Land Use District and is not adjacent to the State Urban Land Use District.

Rating: POOR

COUNTY GENERAL PLAN

The site is designated Orchard on the County General Plan.

Rating: POOR

COUNTY ZONING

The site is zoned Open.

Rating: POOR

AGRICULTURAL LAND CLASSIFICATION

The site is located on land classified as E306 which has a University of Hawaii Land Study Bureau productivity rating of poor.

Rating: GOOD

LAND OWNERSHIP

The site is under the ownership of the Paradise Hui Hanalike, the community association.

Rating: FAIR

TRAFFIC FLOW

This site is within Traffic Flow Zone II as depicted in Figure 24 on page 5-12. This Zone would have a moderate amount of work bound traffic which would coincide with school bound traffic if the school were located within this Zone.

Rating: FAIR

6.2.3 Evaluation of Site C - Hawaiian Paradise Park between 14th and 15th Streets on Kaloli Drive.

This site is located in the Hawaiian Paradise Park Subdivision. It was recommended by Paradise Hui Hanalike (the community association which owns the parcel) for consideration as a possible site for the elementary school.

SIZE

Site C is TMK 1-5-47:206 and is 20 acres in size. Although the site is actually larger than the minimum required, the association is willing to divide out the necessary lot size.

Rating: FAIR

SLOPE

The average slope of the site is approximately 0 to 3 percent. The site is mostly level.

Rating: GOOD

SOIL DEPTH

The soil type is pahoehoe lava (rLW) with almost no soil covering to support vegetation. Consequently top soil would need to be imported for lawn, playground, and landscape areas. The existing ground should provide a solid foundation for facilities, roads and parking areas.

Rating: POOR

ROADWAYS

The site is bordered on three sides by existing roads. Kaloli Drive, a paved two-lane road that intersects with Pahoia Highway (Highway 130), would be the primary vehicular route to the school site. This site is approximately 2-1/2 miles from Pahoia Highway. The other two side streets, (14th and 15th) are minor roads, currently unpaved.

Kaloli Drive is a main road serving Hawaiian Paradise Park, however it is not built to County standards and does not have sidewalk or walkways. This is a private road which is open to the public and although it does not meet County standards, it appears adequate for an elementary school site presently, based on roadway width, right-of-way and relatively light traffic. The two side streets bordering the school should be paved, at least along the length of the school site boundary. As the subdivision grows and more vehicular traffic is generated in the future, road improvements to upgrade Kaloli Drive to County standards for a collector street with sidewalks or walkways may be warranted.

Rating: FAIR

WATER

There is presently no public or private water system in Hawaiian Paradise Park. Residents have individual water catchment systems. The nearest municipal water system is a 12-inch main located along Pahoa Highway (Highway 130), a distance of approximately 11,000 feet from this site. A 12-inch main would have to be extended from the existing main to provide adequate water service. Fire protection may not be adequate because the County's water reservoir for this service area is located approximately seven miles away with an 8-inch transmission main segment in between. An 8-inch main is normally too small for the required 2,000 gallons per minute fire flow rate. If so, the existing 8-inch main would need to be replaced by a 12-inch main or supplemented with a parallel 8-inch main.

Rating: POOR

WASTEWATER

Because there are no existing sewers or treatment plants to serve any of the candidate school sites, the wastewater disposal method common to all sites would be an on-site treatment and disposal facility consisting of septic tanks and subsurface leaching systems. On-site treatment and disposal utilizing septic tanks and leaching systems would technically work on this site because of the permeable subsurface and flat terrain. Although this site has adequate space, the soil conditions are not ideal as there is basically no topsoil, only lava. These conditions provide less filtration. However, the Department of Health has approved of past leach field systems in Paradise Park.

Rating: FAIR

DRAINAGE

On-site runoff is expected to be contained within the site without significant drainage improvements because of the flat terrain and very permeable soil. Run-off from areas outside the school site is not likely to cause any problems. There is no erosion hazard.

Rating: GOOD

PEDESTRIAN ACCESS

Students living nearby could walk to school along the three roads bordering the site.

Rating: GOOD

PEDESTRIAN SAFETY

Although there are no existing sidewalks or paved walkways, there is room in the shoulder areas outside of the road pavement. Vehicular traffic is relatively light and there are no major roads or highways near the school site.

Rating: GOOD

AUTOMOBILE ACCESS

Primary vehicular access to the school could be provided by driveways directly into the school grounds from Kaloli Drive. The sight distance appears to be satisfactory. Secondary access could be added by driveways into school grounds from 14th and 15th Streets. The site will have through streets along one short side and one long side.

Rating: GOOD

TRAFFIC SAFETY

Due to the condition of straight roads bordering the site and relatively light vehicular traffic typical of interior subdivision roads, traffic safety is considered good.

Rating: GOOD

HIGHWAY/ROADWAY NOISE

The site is more than 1,500 feet away from Pahoia Highway (Highway 130).

Rating: GOOD

INDUSTRIAL/AGRICULTURAL NUISANCES

There are no active industrial or agricultural activities adjacent to or near the site.

Rating: GOOD

AIR QUALITY

There are no adjacent sources of significant air pollution or odors within 500 feet of the property boundary.

Rating: GOOD

TOXIC WASTE

There is no visible sign of hazardous waste on the site, adjacent to the property boundary, or sources within 1,000 feet.

Rating: GOOD

STATE LAND USE

The site is in the State Agricultural Land Use District and is not adjacent to the State Urban Land Use District.

Rating: POOR

COUNTY GENERAL PLAN

The site is designated Orchard on the County General Plan.

Rating: POOR

COUNTY ZONING

The site is zoned Open.

Rating: POOR

AGRICULTURAL LAND CLASSIFICATION

The site is located on land classified as E306 which has a University of Hawaii Land Study Bureau productivity rating of poor.

Rating: GOOD

LAND OWNERSHIP

The site is under the ownership of the Paradise Hui Hanalike, the community association.

Rating: FAIR

TRAFFIC FLOW

This site is within Traffic Flow Zone III as depicted in Figure 24 on page 5-12. This Zone would have a minimal amount of work bound traffic which would coincide with school bound traffic if the school were located within this Zone.

Rating: POOR

6.2.4 Evaluation of Site D - Keaau on Volcano side of Pahoa Highway

This site is located in Keaau Town. It was recommended by W. H. Shipman Ltd. for consideration as a possible site for the elementary school.

SIZE

Site D is TMK 1-6-03:008 is 44 acres in size. Although the site is actually larger than the minimum required, the owner is willing to divide out the necessary lot size.

Rating: FAIR

SLOPE

The average slope of the site is between 4 to 6 percent, sloping downward from the mauka area toward the makai property line along the Keaau-Pahoa Highway. The site is mostly level at the makai boundary.

Rating: FAIR

SOIL DEPTH

The soil types found on this site are Oloa (OaC) and Hilo (HoC) silty clay loam. Hilo soils are generally more than five feet thick while Oloa soils are shallow, approximately two feet thick overlying Aa lava. There should be ample soil on-site for grass and landscaping. The area was used for growing sugarcane.

Rating: GOOD

ROADWAYS

This site is a short distance from the Pahoa Highway (Highway 130), on the Volcano side of the road. This highway meets County standards. There is also an existing private, narrow-paved road along the site that runs approximately parallel to the Pahoa Highway. For safety reasons, direct access to the site will be provided from the existing private road which could be upgraded to meet County standards.

Rating: GOOD

WATER

Water service could be provided by a connection to the County's existing 16-inch water main along Pahoa Highway. A 12-inch main extended from this connection to the site would satisfy domestic demand and fire protection flow requirements.

Rating: GOOD

WASTEWATER

Because there are no existing sewers or treatment plants to serve any of the candidate school sites, the wastewater disposal method common to all sites would be an on-site treatment and disposal facility consisting of septic tanks and subsurface leaching systems. An on-site treatment and disposal system utilizing septic tanks and subsurface disposal is anticipated at this site because the soil is considered permeable. There are no apparent conditions at this site that would preclude using this type of system.

Rating: GOOD

DRAINAGE

There are no existing drainage facilities at any of the sites. Rain runoff generated on-site is not expected to increase significantly with the addition of school facilities. However, some drainage improvements may be necessary to handle runoff from adjacent lands above this site. The intercepted runoff would be routed through this site toward Pahoa Highway.

Rating: FAIR

PEDESTRIAN ACCESS

The school access road which would be built along the makai boundary, should be built with sidewalks or paved walkways for the students living nearby that would walk to school. Pahoa Highway is not a safe road for elementary school students to cross due to the high traffic volume and speeds. However, an existing underpass nearby could be utilized by students living across the highway from the site. The underpass is not large enough to be used as a school vehicular access road, but would be ideal for pedestrian traffic to cross under Pahoa Highway and thereby avoid young students crossing a major road at-grade. This site has restricted pedestrian access along one side.

Rating: POOR

PEDESTRIAN SAFETY

Currently there are no existing walkways to the site. Pahoa Highway is not a safe road for elementary school students to cross due to the high traffic volume and speeds. However, an existing underpass nearby could be utilized by students living across the highway from the site. The underpass is not large enough to be used as a school vehicular access road but would be ideal for pedestrian traffic to cross under Pahoa Highway and thereby avoid young students crossing a major road at-grade. Safe walkways to the site can be provided along the school access road.

Rating: FAIR

AUTOMOBILE ACCESS

A new intersection for the school access road with Pahoa Highway would be needed. This intersection would be situated on the outside edge of the highway curve where sight distance appears satisfactory. Intersection improvements would include a left turn storage lane and possibly acceleration and deceleration lanes. This site would have a through street along one long side.

Rating: FAIR

TRAFFIC SAFETY

Access to the site would be via a heavily traveled highway and a small frontage road that runs directly in front of the site. Because Pahoa Highway is a major traffic route, required intersection improvements would include a left turn storage lane at a minimum. Acceleration and deceleration lanes may also be required for traffic safety.

Rating: FAIR

HIGHWAY/ROADWAY NOISE

The site is within 500 feet of Pahoa Highway.

Rating: POOR

INDUSTRIAL/AGRICULTURAL NUISANCES

The site is bordered by fallow sugarcane lands on three sides and fronts the Pahoa Highway. Currently there are no industrial or agricultural uses near the site.

Rating: GOOD

AIR QUALITY

The Pahoa Highway is adjacent to and upwind from the site, but the parcel is set back a little from the highway.

Rating: FAIR

TOXIC WASTE

There is no visible sign of hazardous waste on the site, adjacent to the property boundary, or any sources within 1,000 feet.

Rating: GOOD

STATE LAND USE

The site is in the State Agricultural Land Use District and is adjacent to the State Urban Land Use District.

Rating: FAIR

COUNTY GENERAL PLAN

The site is designated Low Density.

Rating: GOOD

COUNTY ZONING

The site is zoned Agricultural.

Rating: FAIR

AGRICULTURAL LAND CLASSIFICATION

The site is located on land classified as D181 which has a University of Hawaii Land Study Bureau productivity rating of fair.

Rating: FAIR

LAND OWNERSHIP

The site is under the ownership of a single corporation, W. H. Shipman Ltd.

Rating: FAIR

TRAFFIC FLOW

This site is within Traffic Flow Zone I as depicted in Figure 24 on page 5-12. This Zone would contain a significant amount of work bound traffic which would coincide with school bound traffic if the school were located within this Zone.

Rating: GOOD

6.2.5 Evaluation of Site E - Keaau on Volcano side of Pahoa Highway

This site is located in Keaau Town. It was recommended by W. H. Shipman Ltd. for consideration as a possible site for the elementary school.

SIZE

Site E is TMK 1-6-03:011 is 108 acres in size. Although the site is actually larger than the minimum required, the owner is willing to divide out the necessary lot size.

Rating: FAIR

SLOPE

The average slope of the site is between 0 and 3 percent. The site is mostly level.

Rating: GOOD

SOIL DEPTH

The soil type for this site is O_{laa} extremely stony silty clay loam (O_{1D}) underlain by Aa lava. Soil cover is relatively shallow, approximately two feet thick and was used for growing sugarcane.

Rating: FAIR

ROADWAYS

This site is located next to Volcano Highway. However, there is a grade separation and safety concerns that make a direct access from the highway undesirable. The site can be accessed via Mamalahoa Road which is a main street in Keaau Town. Mamalahoa Road does not meet current County road standards with regard to roadway width and traffic safety design.

Rating: FAIR

WATER

Water service could be provided from the existing County 16-inch water main along Volcano Highway or Mamalahoa Road. Domestic water demand and fire protection flow requirements could be satisfied by the existing water system.

Rating: GOOD

WASTEWATER

Because there are no existing sewers or treatment plants to serve any of the candidate school sites, the wastewater disposal method common to all sites would be an on-site treatment and

disposal facility consisting of septic tanks and subsurface leaching systems. An on-site treatment and disposal system utilizing septic tanks and subsurface disposal is anticipated at this site because the soil is considered permeable. There are no apparent conditions at this site that would preclude using this type of system.

Rating: GOOD

DRAINAGE

There are no existing drainage facilities at any of the sites. Off-site rain runoff is expected to flow into the school site because Volcano Highway and the adjacent subdivision have embankments that slope downward toward this site. The off-site runoff and potential increase in runoff generated on-site would have to be handled by a drainage system. If the runoff increase cannot be retained on-site, it may be necessary to discharge onto adjacent property. There are no apparent drainage ways or systems into which it could be discharged.

Rating: POOR

PEDESTRIAN ACCESS

Pedestrian access would be primarily via Mamalahoa Road, along the entrance side of the property which faces towards Keaau Town. The site would be accessible from two sides, the one facing Mamalahoa Road and the side facing Keaau Town.

Rating: FAIR

PEDESTRIAN SAFETY

With the improvement of adequate roadway width and the provision of sidewalk, pedestrian safety should be satisfactory for students walking to school or being dropped off. There are currently no sidewalks to the site, but safe walkways and shoulders to the site can be provided along the school access road.

Rating: FAIR

AUTOMOBILE ACCESS

Mamalahoa Road intersects with Volcano Highway near the site and makes a sharp, almost 90 degree turn just before the Road intersects the Highway. Mamalahoa Road will provide through-street access along one long side.

Rating: FAIR

TRAFFIC SAFETY

Creating an intersection for a school access road at this sharp turn described above could be hazardous because it would introduce conflicting traffic movements without adequate sight distances under the existing conditions. Clearing and possibly grading would be required to provide proper sight distances between this intersection and the highway. However, access to the site will be via a through street, not directly from the Highway

Rating: FAIR

HIGHWAY/ROADWAY NOISE

The site is within 500 feet of Volcano Highway.

Rating: POOR

INDUSTRIAL/AGRICULTURAL NUISANCES

The site is bordered by fallow sugarcane lands on one side, borders Volcano Highway on another side, and is adjacent to the AMFAC residential subdivision, Keaau Town, and the 9-mile Camp housing located across Volcano Highway. Currently there are no active industrial or agricultural uses near the site.

Rating: GOOD

AIR QUALITY

The Volcano Highway is adjacent to the site.

Rating: FAIR

TOXIC WASTE

There is no visible sign of hazardous waste on the site, adjacent to the property boundary, or any sources within 1,000 feet.

Rating: GOOD

STATE LAND USE

The site is in the State Agricultural Land Use District and is adjacent to the State Urban Land Use District.

Rating: FAIR

COUNTY GENERAL PLAN

The site is designated Low Density.

Rating: GOOD

COUNTY ZONING

The site is zoned Agricultural.

Rating: FAIR

AGRICULTURAL LAND CLASSIFICATION

The site is located on land classified as D181 which has a University of Hawaii Land Study Bureau productivity rating of fair.

Rating: FAIR

LAND OWNERSHIP

The site is under the ownership of a single corporation, W. H. Shipman Ltd.

Rating: FAIR

TRAFFIC FLOW

This site is within Traffic Flow Zone I as depicted in Figure 24 on page 5-12. This Zone would contain a significant amount of work bound traffic which would coincide with school bound traffic if the school were located within this Zone.

Rating: GOOD

6.2.6 Evaluation of Site F - Keaau on the Hilo side of Pahoa Highway

This site is located in Keaau Town. It was recommended by W. H. Shipman Ltd. for consideration as a possible site for the elementary school.

SIZE

Site F is TMK 1-6-03:003 which is 100 acres in size. Although the site is actually larger than the minimum required, the owner is willing to divide out the necessary lot size.

Rating: FAIR

SLOPE

The average slope of the site is between 0 to 3 percent. The site is mostly level.

Rating: GOOD

SOIL DEPTH

The soil types found on this site are Olaa (OaC) and Hilo (HoC) silty clay loam. Hilo soils are generally more than five feet thick while Olaa soils are shallow, approximately two feet thick overlaying Aa lava. There should be ample soil on-site for grass and landscaping. The area was used for growing sugarcane.

Rating: GOOD

ROADWAYS

This site is a short distance from the Pahoa Highway (Highway 130), on the Hilo-side of the road. This highway meets County standards. There is also an existing private, narrow paved road along the Keaau-side of the site that runs approximately perpendicular to Pahoa Highway. For safety reasons, direct access to the site will be provided from the existing private road which could be upgraded to meet County standards.

Rating: GOOD

WATER

Water service could be provided by a connection to the County's existing 16-inch water main along Pahoa Highway. A 12-inch main extended from this connection to the site would satisfy domestic demand and fire protection flow requirements.

Rating: GOOD

WASTEWATER

Because there are no existing sewers or treatment plants to serve any of the candidate school sites, the wastewater disposal method common to all sites would be an on-site treatment and disposal facility consisting of septic tanks and subsurface leaching systems. An on-site treatment and disposal system utilizing septic tanks and subsurface disposal is anticipated at this site because the soil is considered permeable. There are no apparent conditions at this site that would preclude using this type of system.

Rating: GOOD

DRAINAGE

There are no existing drainage facilities at any of the sites. Rain runoff generated on-site is not expected to increase significantly and any increase in flow off the site should not create a problem. There is basically no off-site runoff to contend with.

Rating: GOOD

PEDESTRIAN ACCESS

This site is accessible from several directions. However, an existing underpass nearby could be utilized by students living across the highway from the site. The underpass is not large enough to be used as a school vehicular access road but would be ideal for pedestrian traffic to cross under Pahoa Highway and thereby avoid young students crossing a major road at-grade. This site has pedestrian access along two sides.

Rating: FAIR

PEDESTRIAN SAFETY

Currently there are no existing walkways to the site. Adding walkways only along the school frontage may not be sufficient for pedestrian safety. Pahoa Highway is not a safe road for elementary school student to cross due to the high traffic volume and speeds. However, an existing underpass nearby could be utilized by students living across the highway. The underpass is not large enough to be used as a school vehicular access road but would be ideal for pedestrian traffic to cross under Pahoa Highway and thereby avoid young students crossing a major road at-grade. Safe walkways to the site can be provided along the school access road.

Rating: FAIR

AUTOMOBILE ACCESS

The existing intersection of the private road and Pahoa Highway would need to be improved. Intersection improvements would include a left turn storage lane and possibly acceleration and deceleration lanes. The site would have through streets along one short side (private road) and one long side (Pahoa Highway).

Rating: GOOD

TRAFFIC SAFETY

Access to the site would be via a heavily traveled highway and a small frontage road that runs directly in front of the site. Because Pahoa Highway is a major traffic route, required intersection improvements would include a left turn storage lane at a minimum. Acceleration and deceleration lanes may also be required for traffic safety. Although this intersection would be on the inside of the highway curve, adequate sight distances could be obtained. School driveways should be connected to the access road rather than Pahoa Highway for traffic safety reasons.

Rating: FAIR

HIGHWAY/ROADWAY NOISE

The site is within 500 feet of Pahoa Highway.

Rating: POOR

INDUSTRIAL/AGRICULTURAL NUISANCES

The site is bordered by fallow sugarcane lands, Pahoa Highway, Keaau Town, and a macadamia nut orchard. The orchard does apply herbicides below the leaf line to eliminate weeds. This method reduces the possibility of chemical wind drift. The orchard is located down-wind from this site and there is sufficient area within this parcel to locate a school facility away from the orchard, thereby creating a buffer zone.

Rating: FAIR

AIR QUALITY

The Pahoa Highway is adjacent to the site.

Rating: FAIR

TOXIC WASTE

There is no visible sign of hazardous waste on the site, adjacent to the property boundary, or any sources within 1,000 feet.

Rating: GOOD

STATE LAND USE

The site is in the State Agricultural Land Use District and is adjacent to the State Urban Land Use District.

Rating: FAIR

COUNTY GENERAL PLAN

The site is designated Low Density.

Rating: GOOD

COUNTY ZONING

The site is zoned Agricultural.

Rating: FAIR

AGRICULTURAL LAND CLASSIFICATION

The site is located on land classified as D181 which has a University of Hawaii Land Study Bureau productivity rating of fair.

Rating: FAIR

LAND OWNERSHIP

The site is under the ownership of a single corporation, W. H. Shipman Ltd.

Rating: FAIR

TRAFFIC FLOW

This site is within Traffic Flow Zone II as depicted in Figure 24 on page 5-12. This Zone would contain a moderate amount of work bound traffic which would coincide with school bound traffic if the school were located within this Zone.

Rating: FAIR

6.3 COST CONSIDERATIONS

This section presents a comparison of the costs associated with site acquisition and development. Cost estimates are made for comparative land values, off-site improvements, on-site improvements and busing subsidies. Cost estimates for factors which are approximately equal for all sites are not included. A summary of the site cost estimates is included as Table 5.

The following cost estimates are provided as a guide for comparison purposes only and will require refinement based on a detailed analysis once a final site is selected. The estimates presented below are sufficiently accurate for the purpose of this Site Selection Study. These estimates are not intended to reflect or aid in determining the actual expenditure requirements.

6.3.1 Comparative Land Value

As discussed in Section 5.3, comparative land value calculations are based on the Hawaii, Real Property Tax Office 1993 assessed values. These estimates are for comparison purposes only and are not assumed to accurately reflect the current market value of the site. Actual acquisition costs will be determined by negotiations based on land appraisal reports or by the courts in condemnation proceedings if an agreement cannot be reached.

Realizing the limitations of assessed value to reflect potential market costs, the current market price of the Kurtistown site was used to determine a "factor" which approximates the difference between this parcel's actual market price and its 1993 assessed value. This "factor" attempts to take into consideration the size of the parcel, the zoning, and the parcel's proximity to an urban area as these characteristics relate to a parcel's market value. The other sites' assessed values were multiplied by the "factor" (calculated below beginning with Site A) in an attempt to estimate the other sites' approximate market value. None of the other sites are listed for sale.

Other characteristics to consider include designation for agricultural use, which is generally assessed at a lower rate than urban land. Four of the six sites are adjacent to or in close proximity to urban areas. It is anticipated that the actual acquisition costs for these sites in particular would be significantly higher.

COMPARATIVE LAND VALUE ESTIMATIONS

Site A - Kurtistown

TMK: 1-7-03:017 8.33 acres

Actual Market Price ('93) = \$345,000

Assessed Value = \$70,800

"Factor" difference between
Assessed and Market = $\$345,000 / \$70,800$ = 4.87 FACTOR

The Market Price is 4.87 times greater than Assessed Value.

School site required = 8.33 acres

Actual Market Price = \$345,000 TOTAL

COMPARATIVE LAND VALUE ESTIMATIONS

Site B and Site C - Hawaiian Paradise Park Subdivision

TMK: 1-5-39:267 20.00 acres (B)

TMK: 1-5-47:206 20.00 acres (C)

Note: It is the written intention of the Paradise Hui Hanalike, the community association which owns Sites B and C, to donate free of charge all or part of the 20 acres of either parcel to the State of Hawaii for the use of an elementary school. Therefore,

Acquisition Cost = \$0 TOTAL

Site D - Keaau

TMK: 1-6-03:008 44 acres

Assessed Value = \$199,200

Per Acre Assessed Value = \$199,200/44 acres = \$4,527 per acre

"Factor" difference between Assessed Value and Market Price = 4.87 times

Adjusted Market Price = \$4,527 per acre * 4.87 = \$22,046 per acre

School site required = 12.00 acres

Approximate Market Price = (12 acres x \$22,046) = \$264,552 TOTAL

Site E - Keaau

TMK: 1-6-03:011 108 acres

Assessed Value = \$378,800

Per Acre Assessed Value = \$378,800/108 acres = \$3,507 per acre

"Factor" difference between Assessed Value and Market Price = 4.87 times

Adjusted Market Price = \$3,507 per acre * 4.87 = \$17,079 per acre

School site required = 12.00 acres

Approximate Market Price = (12 acres x \$17,079) = \$204,948 TOTAL

COMPARATIVE LAND VALUE ESTIMATIONS

Site F - Keaau

TMK: 1-6-03:003 100 acres

Assessed Value	= \$299,300	
Per Acre Assessed Value	= \$299,300/100 acres	= \$2,993 per acre
"Factor" difference between Assessed Value and Market Price	= 4.87 times	
Adjusted Market Price	= \$2,993 per acre * 4.87	= \$14,576 per acre
School site required	= 12.00 acres	
Approximate Market Price	= (12 acres x \$14,576)	= \$174,912 TOTAL

6.3.2 On-Site Improvements

On-site improvements are estimated to vary from \$655,000 to \$1,544,000 (see Table 5).

Clearing

The cost for clearing and grubbing depends on several factors including access to the site, terrain, type of soil, ground cover/vegetation, and condition or previous use of the land. For this project the estimated cost for clearing and grubbing is \$5,000 per acre if the site factors are good, \$10,000 per acre if the site factors are fair and \$15,000 per acre if the site factors are considered poor.

Sites B and C are considered good because access to the site is available from at least three roads surrounding the sites and the terrain is level. Although there are trees the root system is shallow and there are no significant drainage/erosion problems. Sites D and F are considered fair because direct access is available from at least two sides and the terrain has a slope that is not steep. There are some large trees and drainage/erosion control is a consideration. Sites A and E, are considered poor because access is not good, primarily from one road. The site has some steep slopes and large trees. Drainage and erosion control would be more difficult to accomplish at these two sites.

Grading

The cost for grading will vary primarily with terrain and soil type. Level areas need to be created for buildings and parking lots and some slope is needed in the open areas for proper drainage. Where these conditions are provided in steep areas there is usually a large surplus of excavated material that needs to be hauled away. In flat areas, soil must be imported to provide enough slope for proper drainage.

Sites A and D are relatively steep, resulting in large quantities of excavation and surplus material. Sites B and C are level with hard lava underneath shallow soils, consequently import borrow is needed to provide satisfactory finish grades and adequate soil for grassing and landscape. Sites E and F are in between in slope.

Drainage

On site drainage improvement costs depend on the need to collect and divert onsite and offsite storm runoff and/or the need to convey the water to an adequate discharge point.

Only sites B and C would not have to be concerned about offsite storm runoff because of the very flat terrain and permeable soil.

Wastewater

Normally the cost for wastewater improvements is an offsite cost to extend a sewer system to the nearest municipal sewer system. However in this case there is no municipal system to serve any of the school sites. All of the sites would require on-site wastewater treatment/disposal systems. It was assumed that the treatment/disposal system would be a septic tank and effluent leaching field. The cost for this system would vary with terrain and type of soil.

6.3.3 Off-Site Improvements

Off-site development costs are estimated to range from \$98,000 to \$1,451,000 (Table 5).

Roadway

Sites A, D and F are located next to a major highway and, therefore, highway intersection improvements would be required to provide left-turn storage lanes, and right-turn deceleration lanes. Sites B and C require improvements to existing unpaved roads on two sides of the school lot. These roads should be improved to the County's standard for minor streets without sidewalks to be consistent with existing Hawaiian Paradise Park streets. A new access road would be required for Site E since vehicular access is not available adjacent to the site. The access road would be about 1,200 feet in length and should be built to the County's standard for minor streets with sidewalks because it is located in the Keaau Town area.

Site A

Highway intersection improvements to provide left-turn storage lane and right-turn deceleration lane.

Site B

Improve 25th and 26th Ave to County's standard for minor streets without sidewalks.

Site C

Improve 14th and 15th Ave to County's standard for minor streets without sidewalks.

Site D

Highway intersection improvements to provide a left-turn storage lane, a right-turn deceleration lane and improve the adjacent existing road.

Site E

New school access road, improvements to existing county road, and provide adequate site distances at existing highway intersection.

Site F

Highway intersection improvements to provide a left-turn storage lane, a right-turn deceleration lane and improve an existing road.

Water

Sites D, E and F have adequate County water systems adjacent to the site or nearby. However Hawaiian Paradise Park does not have a water system to serve sites B and C, and the existing County water system along Site A cannot provide adequate fire flow requirements.

Off-site improvements for Site A include a new 300,000 gallon reservoir and a new 12-inch main to satisfy fire flow requirements.

Off-site improvements for Sites B and C include extending a new 12-inch main from the respective sites to the County water system along Highway 130 and improving the County's system in order to satisfy fire flow requirements. One option is to add a new 300,000 gallon reservoir and 12-inch transmission main. However, the cost to provide a new reservoir in the vicinity of Hawaiian Paradise Park would be very high. A more cost effective option is to improve the existing transmission system between Keaau Town and Hawaiian Paradise Park by developing additional lines to supplement the existing capacity, as needed.

Site A

Provide new 300,000 gallon reservoir and 12-inch transmission main.

Site B

Extend 12-inch main 3,600 feet to the highway and install parallel 12-inch and 16-inch mains along Highway 130.

Site C

Extend 12-inch main 11,000 feet to the highway and install parallel 12-inch and 16-inch mains along Highway 130.

Site D

Extend 12-inch main from Highway 130 to the site

Site E

Extend 12-inch main from existing County system to the site.

Power/Communication

All of the sites have power and communication systems adjacent or nearby. Off-site costs consist primarily of extending the service to the respect sites. Only Sites D and E require this extension.

6.3.4 Bus Subsidy Costs

An allowance for bus transportation is provided by the State for students residing more than one mile in road distance from the school. The bus subsidy costs for each candidate site are based on the estimated number of student who would qualify for the subsidy and the amount of subsidy per bus.

Based on Department of Accounting and General Services figures, a present subsidy rate of \$140 per bus per day is assumed for purposes of this comparison. Each bus has a maximum capacity of 60 students and each bus is assumed to make two trips in each direction per day twice in the morning and twice in the afternoon. Student enrollment is assumed to increase as a constant rate from the opening enrollment of 550 in 1997 to the design enrollment of 945 in 2017. Peak enrollment figures are not included for purposes of the bus subsidy comparison. It is assumed that buses will be rented out for 175 days of the year.

Student distribution is estimated based on the student survey conducted by Keaau School in 1993. Using figures from that survey the following student ridership percentages were estimated:

- A - Kurtistown 85%
- B - Paradise Park 95%
- C - Paradise Park 95%
- D - Keaau Town 85%
- E - Keaau Town 85%
- F - Keaau Town 85%

Because each bus will make two trips, the capacity of each bus is rated at 120 students. Table 3 estimates the bus subsidy for each site.

TABLE 3

ANNUAL BUS SUBSIDY

Sites A, D, E & F

<u>Year</u>	<u>Enrollment</u>	<u># Students Qualified 85%</u>	<u>Buses Required Daily</u>	<u>Annual Subsidy (dollars)</u>
1997	550	466	4	98,000
2017	945	804	7	176,500

Sites B & C

<u>Year</u>	<u>Enrollment</u>	<u># Students Qualified 95%</u>	<u>Buses Required Daily</u>	<u>Annual Subsidy (dollars)</u>
1997	550	523	5	122,500
2017	945	898	8	196,000

**TABLE 4
EVALUATION SUMMARY**

	A	B	C	D	E	F
• PHYSICAL CRITERIA						
Size	G	F	F	F	F	F
Slope	P	G	G	F	G	G
Shape	G	G	G	G	G	G
Stability for Foundations	G	G	G	G	G	G
Soil Depth	F	P	P	G	F	G
Aesthetic Value	G	G	G	G	G	G
Natural Beauty	G	G	G	G	G	G
Roadways	G	F	F	G	F	G
Water	F	P	P	G	G	G
Wastewater	P	F	F	G	G	G
Drainage	P	G	G	F	P	G
Power & Communication	G	G	G	G	G	G
Pedestrian Access	P	G	G	P	F	F
Pedestrian Safety	P	G	G	F	F	F
Automobile Access	P	G	G	F	F	G
Traffic Safety	P	G	G	F	F	F
Highway/Roadway Noise	P	G	G	P	P	P
Aircraft Noise	G	G	G	G	G	G
Rainfall	P	P	P	P	P	P
Industrial/Agricultural Nuisances	F	G	G	G	G	F
Air Quality	P	G	G	F	F	F
Toxic Waste	P	G	G	G	G	G
• COMMUNITY CRITERIA						
State Land Use	F	P	P	F	F	F
County General Plan	G	P	P	G	G	G
County Zoning	G	P	P	F	F	F
Displacement	G	G	G	G	G	G
Existing Use	G	G	G	G	G	G
Interfere w/ Institutions	G	G	G	G	G	G
Agricultural Land Classification	F	G	G	F	F	F
Land Ownership	P	F	F	F	F	F
Proximity to Student Population	P	P	P	P	P	P
Traffic Flow	P	F	P	G	G	F
TOTAL G (Good)	13	20	20	17	16	18
TOTAL F (Fair)	5	5	4	11	12	11
TOTAL P (Poor)	14	7	8	4	4	3
	(A) Kurtistown 8.33 acres					
	(B) Paradise Park at 25-26th Streets					
	(C) Paradise Park at 14-15th Streets					
	(D) Keaau Volcano side of Hwy. 130					
	(E) Keaau Hilo side of Hwy. 130					
	(F) Keaau near AMFAC Subdivision					

TABLE 5						
PHYSICAL, COMMUNITY AND COST CRITERIA SUMMARY EVALUATION						
EVALUATION CRITERIA	SITE A	SITE B	SITE C	SITE D	SITE E	SITE F
A. PHYSICAL & COMMUNITY CRITERIA						
PHYSICAL CRITERIA						
Total (Good) G	8	16	16	12	11	14
(Fair) F	3	3	3	7	8	6
(Poor) P	11	3	3	3	3	2
COMMUNITY CRITERIA						
Total (Good) G	5	4	4	5	5	4
(Fair) F	2	2	1	4	4	5
(Poor) P	3	4	5	1	1	1
B. COST CRITERIA						
LAND ACQUISITION						
Land	\$345,000	\$0	\$0	\$265,000	\$205,000	\$175,000
ON-SITE IMPROVEMENTS						
Clearing	125,000	60,000	60,000	120,000	180,000	120,000
Grading	997,000	200,000	200,000	557,000	251,000	317,000
Drainage	82,000	0	0	113,000	115,000	128,000
Wastewater	340,000	405,000	405,000	340,000	310,000	310,000
Total On-Site	\$1,544,000	\$665,000	\$665,000	\$1,130,000	\$856,000	\$875,000
OFF-SITE IMPROVEMENTS						
Roadways	69,000	87,000	87,000	104,000	582,000	98,000
Water	1,577,000	1,364,000	2,187,000	43,000	82,000	0
Power/Communication	0	0	0	38,000	72,000	0
Total Off-Site	\$1,646,000	\$1,451,000	\$2,274,000	\$185,000	\$736,000	\$98,000
BUS SUBSIDY FOR 1997	98,000	122,500	122,500	98,000	98,000	98,000
TOTAL COST	\$3,633,000	\$2,238,500	\$3,061,500	\$1,678,000	\$1,895,000	\$1,246,000

SECTION 7 - Potential Impacts and
Mitigative Measures

7.0 POTENTIAL IMPACTS AND MITIGATIVE MEASURES

The beneficial as well as adverse effects of the proposed elementary school are considered in the following discussion of potential impacts and mitigative measures. Mitigation of potential environmental, social and economic impacts, both short and long term, has been incorporated into the planning process for the proposed elementary school from the initial stages. This process is documented in the Site Selection Study contained in Sections 4.0, 5.0, and 6.0.

The site selection process for the proposed elementary school assessed a wide range of social, economic, physical, environmental, and land use factors in order to avoid potentially adverse impacts. The effects of the construction and operation of the proposed elementary school were considered during both the broadscale analysis and the site specific evaluation phases of site selection. As a result of this process, the risk of significant adverse impacts from the proposed project is minimized.

The broadscale analysis phase, outlined in Section 4.0, eliminated from consideration land on which the proposed elementary school would have created adverse effects. Similarly, lands with characteristics such as steep slopes were eliminated to minimize the amount of on-site improvements required to accommodate a school facility. Minimizing the erosion potential was also a consideration during the early phase of site selection.

Flood prone areas, such as tsunami inundation zones, and the 100 year flood plains were also avoided to minimize hazards to human health and safety.

Federal, State and County land use regulations, designed to protect agricultural lands, were respected and followed. Furthermore, the social impact resulting from the displacement of families, businesses or farms was avoided in the broadscale analysis phase by eliminating presently developed lands from consideration.

The selection process served as a mitigation tool which resulted in identifying six candidate sites where the proposed development would have the least impact on the project site and adjacent lands. Candidate sites were evaluated with criteria chosen to determine the degree of potential impacts associated with each site. The site evaluation criteria described in Section 5.0 established the site conditions and characteristics that are important for school development and functions and for reducing adverse impacts.

As a result, the site selection process results in a low probability for significant adverse impacts from the proposed project. The process thereby assists decision makers in selecting a site which, to the maximum extent possible, minimizes or avoids potentially negative impacts. There are some unavoidable impacts which may occur during construction and/or operation of the school. These potential impacts and related mitigation measures are discussed below.

7.1 POTENTIAL SHORT-TERM IMPACTS

7.1.1 Soil Erosion

Site preparation for construction will involve grading and clearing operations. There is also potential for soil erosion by rain and wind during the construction phase. However, long-term effects of soil erosion are expected to be minimal due to level topography and landscaping. Soil erosion was a factor considered in site evaluation. Areas of steep slope were eliminated during the broadscale and minimum site criteria analysis.

Soil erosion will be minimized and limited to the construction phase. Site planning will consider minimization of grading and grubbing. Construction activities will follow strict erosion control measures specified in local, State and Federal regulations.

7.1.2 Noise and Dust

Some noise and dust resulting from construction related activities will be unavoidable. However, it will be minimized by adhering to approval practices and procedures. Construction noise and dust will be temporary and intermittent. These effects will occur on the school site as well as on roadways requiring utility and road improvements.

Noise levels from heavy equipment and construction activities will adhere to the required State Department of Health and OSHA standards. Dust pollution will be controlled by complying with the Department of Health regulations. These controls include wetting down loose soil areas, good housekeeping on the job site, and paving or landscaping bare soil areas as quickly as possible.

7.1.3 Archaeological and Historic Resources

According to the State Historic Preservation Division, there are no known or listed archaeological sites on any of the six candidate school sites. However, it should be noted that there are many lava tubes present in the Hawaiian Paradise Park Subdivision which may be potential locations for undiscovered archaeological or cultural resources. Should either of the Hawaiian Paradise sites be selected, an archaeological inventory survey would be undertaken prior to construction to determine the presence or absence of historic sites.

The remaining sites are all fallow agricultural lands, primarily used for sugarcane in the past. The State Historic Preservation Division has due to these conditions it is very unlikely that significant historic sites would still remain in these parcels. Therefore, construction of a school in any of these four parcels would have no effect on significant historic sites. Should subsurface features be discovered, construction activity would cease and the State Historic Preservation Office will be notified. The appropriate and necessary steps will be taken.

7.1.4 Employment

The proposed elementary school will generate short-term employment opportunities associated with the design and construction of the facilities.

7.2 POTENTIAL LONG-TERM IMPACTS

7.2.1 Education

The proposed elementary school will provide necessary educational benefits to the school service area communities by reducing the overcrowding and substandard facilities at the existing facilities. It will also accommodate the near term future growth that is anticipated for the school district.

7.2.2 Employment

A new elementary school will provide employment opportunities to operate and maintain the school, including administration, faculty, service and maintenance personnel.

7.2.3 Traffic

The school development will inevitably increase vehicular traffic on the access roads surrounding the final selected site. For this reason, the accessibility of each candidate site and the adequacy of the roads serving each site were carefully evaluated in the site selection process. The major access road(s) will be improved as necessary to provide adequate capacity for school traffic. Sufficient parking, loading and turn-around areas will be provided on-site to ensure vehicular and pedestrian safety. Appropriate traffic controls such as signs, crosswalks, barriers, or lights will be incorporated in the design of the school.

A more detailed traffic assessment will be conducted and specific mitigation measures identified when the final site is selected. At that time, an assessment will be made of potential site planning options which may affect traffic circulation and safety.

7.2.4 Noise

The elementary school will be designed to comply with the Department of Health standards for Community Noise. Facility equipment, such as air conditioning units, kitchen exhausts, etc. will be operated and maintained to meet acceptable levels.

7.2.5 Vegetation

The existing vegetation of the candidate sites varies. The loss of vegetation during clearing and grading of the selected site will be offset by grassing and landscaping of the school campus. Existing trees which are desirable may be saved as possible and incorporated in the landscape plans where possible or transplanted on site. There were no endangered species observed during the field investigations. The Kurtistown and Keaau sites are on previously cultivated sugarcane lands. Disturbance is not expected to have any significant long term impacts. Most trees on site were Eucalyptus and Macaranga species. Ground cover was mostly introduced or cultivated species such as sugarcane, California grass and common ferns.

The Paradise Park sites are undisturbed lava lands. As such, native trees such as Ohia lehua and ferns such as Uluhe cover large areas of these sites. However, these species are common and not endangered. Therefore, the long term impact is expected to be minor.

7.2.6 Wildlife

The wildlife in the area consists of introduced species such as rats, mice, mongoose and various insects. A wide variety of introduced bird species can be found throughout the area including doves and myna. The Hawaiian Owl (Pueo) and Hawaiian Hawk (Io) may be found in the area though none were observed during the field investigation. The "threatened" native Hawaiian seabird, Newell's Shearwater ('A'o), may nest in the region.

The development of the school site will temporarily removed about 8 to 12 acres of feeding and breeding grounds for some of these animals until the school landscape is planted and matured. There are no known endangered species of wildlife which would be directly affected by the proposed school.

7.2.7 Visual Resources

The natural aesthetic features of each site were evaluated in the site election study relative to the potential for creating an aesthetically pleasing campus. In addition, the design of school buildings will be coordinated with the character of the community. As a result, no significant adverse impacts are anticipated on scenic vistas or the natural beauty of the project location.

7.2.8 Population Growth

A new elementary school may not directly stimulate population growth, however, it may have some impact on growth. It may indirectly accelerate some growth by providing upgraded roads and utilities in the area which would be able to accommodate development that cannot currently be handled by the existing systems.

7.2.9 Property Tax

Acquisition of any of the alternative sites will remove land from the tax base. This will result in a loss of tax revenues. Relative to the project cost and social benefits of a new school, the loss of tax revenue from the selected school site is not considered significant.

7.2.10 Groundwater

A large quickly moving aquifer lies beneath all the alternative sites. Due to the absence of sewerage in the area there is some potential for contamination of this aquifer from any on-site wastewater systems that may be developed for the school. A shallow leach field system will be developed for the school in accordance to guidelines established by the Department of Health. This should minimize or eliminate any adverse impacts that may result from the development of the school.

7.2.11 Stormwater and Drainage

Development of the school will result in increased stormwater runoff due to the increase in non-permeable surfaces after development. While specific impacts will vary with the site selected all will be manageable. Sites B and C may be developed without concern for off-site runoff due to flatness of terrain. All other sites will require some form of mitigation to avoid impacting adjacent properties. With appropriate improvements there should be no significant impacts to area drainage conditions.

7.2.12 Marine Resources

All six sites retained in the site selection process are located well inland from the coastline. The nearest site is 10,000+ feet from the ocean. No long term impact to marine resources is expected. The only potential for impact would come if there are unknown lava tubes below the on-site wastewater system which would flush wastewater quickly to the ocean. Site testing prior to implementation should mitigate any potential for impact from this possibility.

7.3 CUMULATIVE IMPACTS

The six candidate sites are located in the vicinity of the Highway 130 and Highway 11 corridors. This area is currently developed primarily with clusters of urban land uses such as residences and commercial facilities and separated by wide expanses of former and some active agricultural uses. Development patterns in the area have resulted in an increase in urban uses with a corresponding decrease in agricultural lands. Establishment of the new Keaau II Elementary School at five of the Candidate Sites will contribute to the conversion of agriculturally designated lands to more urban uses. The new school will also have cumulative impacts on community services and other public facilities if the school's service area.

Establishment of the new school on lands utilized for agricultural purposes could result in increased pressure to develop adjacent agricultural lands with more urban uses. This growth-inducing impact is not expected to be significant. Sites A, D, E, and F are currently adjacent to or in close proximity to existing residential areas. Paradise Park is an agricultural subdivision

but the primary uses are large lot residential rather than agriculture. There is a surplus of agricultural lands relative to demand or need, as evidenced by large tracks of vacant agricultural land. The lands in all three areas Kurtistown, Keaau and Paradise Park are all experiencing growth and pressure for residential development. The school is more responsive to growth rather than an engine of growth, although it may have a stimulative effect on the areas immediately adjacent to the selected site. Essentially it may direct the existing growth pressures into the site location. The overall impact of the school expected to be minor.

The school selection process is a technical and political process. As such the final decision is made by the Governor of the State of Hawaii. The technical aspects of the study are affected by the funding constraints which direct the analysis. The final selection will have an impact on the immediate area around the school as well as communities in the entire school service district, adjacent districts and the larger high school complexes to which the different elementary school districts belong. The centers of population growth will bear the affects of the siting location more intensely if their growth contains a large amount of school aged children. While imbalances will continue to occur, the process of school selection is an ongoing one and broader issues of redistricting, small school sizes, and other school selection processes will mitigate some of the more severe impacts of location decisions. Funding remains the key constraint to long term progress in redressing inequities and improving service.

7.4 UNAVOIDABLE ADVERSE IMPACTS

A temporary increase in dust, noise and traffic congestion can be expected during the construction phase of the project. This impact will be a minor, short-term inconvenience and will be minimized by the use of dust abatement techniques and limitations on the hours of construction activity.

Especially during the clearing and grading phases, but also during the general construction phase there will be an increase in runoff potential especially on the steeper sites such as #1 and #4. All applicable mitigation measures will be taken to minimize any negative potential.

Existing vegetation on the site will be removed during construction. While unavoidable, there are no known endangered species on the site. Existing fauna will relocate to surrounding habitats that are similar.

Once the new school is opened, an increase in traffic in the vicinity of the school site, particularly during school hours can be expected. An increased demand on public facilities and community services and periodic increases in noise levels due to school activities are also expected. These impacts will be minimized through improvements to roads, water systems, and drainage facilities as required. School facilities can be designed and located to minimize conflicts with the surrounding community and agricultural activities. Walls, fences and landscaping can be incorporated into project plans to help screen and buffer school accessways, buildings and play areas.

SECTION 8 - Relationship of the Proposed Project
to Land Use Plans, Policies
and Controls for the Affected Area

8.0 RELATIONSHIP OF THE PROPOSED PROJECT TO LAND USE PLANS, POLICIES AND CONTROLS FOR THE AFFECTED AREA

This section addresses the land use plans and policies which are relevant to the proposed elementary school and the study area. These include the Hawaii State Plan, the Hawaii State Functional Plans, the State Land Use Law, and the County of Hawaii General Plan and zoning regulations. Other policies considered in this section include the Department of Education's goals which include plans for the Waiakea Complex and the Keaau School Service Area.

8.1 HAWAII STATE PLAN

The State Plan establishes general goals, policies and objectives along with priority directions for the State of Hawaii. The provision of quality public education is a priority direction:

...to ensure the provision of adequate and accessible educational facilities and services that are designed to meet individual and community needs...

The proposed new Keaau II Elementary School is consistent with the Hawaii State Plan and the policy to provide adequate and accessible educational services and facilities for future student populations.

8.2 HAWAII EDUCATIONAL FUNCTIONAL PLAN

The Educational Functional Plan, one of fourteen Functional Plans, embraces the direction of the State Plan and additionally calls for, "providing a safe and secure environment for schools and libraries". The proposed Keaau II Elementary School will comply and support the Hawaii Educational Functional Plan.

8.3 STATE LAND USE DISTRICT

All lands in the State are placed into one of four Land Use Districts to help assure that they are used for the purposes to which they are best suited. In general, schools are permitted uses within the Urban State Land Use District. A Special Permit or State Land Use District Boundary Amendment is required for schools in the Rural or Agricultural Districts. Lands within the Agricultural District but adjacent to the Urban District are preferred over Agricultural District Lands surrounded only by other Agricultural lands. It is the policy of the DOE not to establish schools within the Conservation Land Use District.

Candidate Sites A, B, C, D, E, and F are all located within the Agricultural District. Sites A, D, E, and F are located adjacent to the Urban District.

8.4 HAWAII COUNTY GENERAL PLAN

The Hawaii County General Plan establishes the long range goals and policies which guide comprehensive development and appropriate uses of land resources. The County General Plan Map currently designates Sites A, D, E, and F as Low Density. Sites B and C are designated Orchard.

8.5 COUNTY ZONING DESIGNATION

The County of Hawaii Zoning Ordinance establishes several Zoning Districts within the County and delineates the respective types of uses permitted and development standards for each District.

Site A is in the Single-Family Residential (RS) County Zoning District. Sites D, E, and F are all within the Agricultural (A) County Zoning District and Sites B and C are within the Open (O) County Zoning District. An elementary school is permitted within the Single-Family Residential and the Agricultural Zoning Districts, but would require a Use Permit. An elementary school is not permitted in the Open Zoning District, but there is a possibility for an exemption by the Director of Planning based on the school's status as a public facility.

8.6 OTHER POLICIES AND CONTROLS

Special Management Area - Lands identified as within the County's Special Management Area (SMA) are subject to the Hawaii County SMA Rules and Regulations as authorized under Chapter 205A, Hawaii Revised Statutes. None of the candidate sites proposed as potential locations for the new Keaau II Elementary School are within the SMA.

Flood hazard - It is the policy of DOE that schools not be located within a coastal high hazard (tsunami) inundation zone or in a major flood plain if adequate drainage provisions cannot be made. None of the candidate sites are located within a tsunami inundation zone or a major flood plain as identified in the Federal Flood Insurance Rate Maps (FIRM).

Department of Health - The State Department of Health (DOH) has established an underground injection control (UIC) program to protect the quality of underground sources of drinking water from pollution by subsurface disposal of fluids. In general, disposal of treated wastewater through injection wells may be permitted in areas located below (makai) of the UIC line established by the State Department of Health. All six candidate sites are located above the UIC line and disposal of treated wastewater through injection wells is not possible.

SECTION 9 - Alternatives to the Proposed Action

9.0 ALTERNATIVES TO PROPOSED ACTION

Four alternatives for this project have been considered and are described below:

- No-Action
- Change Existing School Service Area Boundaries
- Expand Existing School
- Construct a New Keaau II Elementary School

9.1 NO-ACTION ALTERNATIVE

The no-action alternative would involve no changes to the existing school campus for the foreseeable future. However, it is anticipated that the existing Keaau Elementary and Intermediate School will continue to grow in enrollment if the existing campus, service area, and grade structure are maintained. Enrollment at the school is projected to increase from 1,157 students in 1990 to 1,433 students in 1995 with an ultimate enrollment of 1,700 students in grades K-8 in the year 2010. The status quo of mixing elementary aged children with middle school children would also continue, this situation is not desirable. By continuing the existing conditions and taking no-action, crowded conditions would increase to unacceptably high levels of dysfunction. This action would not be consistent with policies for public education.

9.2 CHANGE EXISTING SCHOOL SERVICE AREA BOUNDARIES

A change in the existing school service area was examined and found infeasible. The nearest existing elementary schools are Keonepoko and Mountain View. These schools are also already crowded and cannot accommodate additional students. The addition of classrooms to these existing school campuses would increase the negative atmosphere of overcrowding which interferes with student achievement. Both are experiencing their own increase in enrollment with a shortage of classroom space and this trend is projected to continue. Given the rural nature of this area and the distance between residences and school facilities, the busing distance and cost to either elementary school is undesirable. A change in the existing school service area may temporarily resolve the problem of overcrowding at the Keaau Elementary School but it would only transfer the problem to other areas and schools which do not have the capacity to absorb the increase. Additionally, the problem of mixing higher and lower levels of student would continue.

9.3 EXPAND EXISTING SCHOOL

The continuous growth cannot be accommodated at the current school campus because there is insufficient space for an adequate number of portable or permanent classrooms without eliminating other school facilities such as limited playground areas. The addition of classrooms to the existing school campus would also exacerbate a negative atmosphere of overcrowding which interferes with student achievement. Expansion of the existing school is not a feasible short term alternative and does not address the issue of an overcrowded campus over the long term. Opportunities to expand within the present campus are very limited. Purchase of additional adjacent land would be necessary and this would be costly and would also involve displacement of existing residences. Again, the problem of mixing higher and lower levels of student would continue.

9.4 CONSTRUCT NEW KEAAU II ELEMENTARY SCHOOL

The final alternative is to construct a new Keaau II Elementary facility which would accommodate projected growth in student population and meet the demands of the existing school service area for grades K-5. The new school would help implement the District plan to

organize the complex into a three level grade structure; grades K-5, an intermediate school for grades 6-8, and a high school for grades 9-12. The new elementary school would also conform to the District's goal to separate young children from adolescents. Relocation of the Keaau Elementary School from the existing facilities will allow for the planned conversion of the campus to a middle school with grades 6-8. Grade 6 students from Mountain View Elementary would transfer to Keaau Intermediate when the school is renovated.

9.5 CONCLUSION

The projected enrollment growth for the existing service area cannot be accommodated at the current Keaau campus. A change in the school service area is not a feasible alternative and therefore, would not resolve the the problem of projected enrollment growth within the Waiakea complex. There is not sufficient space to expand the existing facilities without causing a decrease in other facilities such as playground area. The appropriate alternative for meeting the existing service area demand is the construction of a new Keaau II Elementary School.

SECTION 10 - Relationship Between
Short-Term Uses and
Long-Term Productivity

**10.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES
AND THE MAINTENANCE AND ENHANCEMENT
OF LONG-TERM PRODUCTIVITY**

10.1 SHORT-TERM USES VERSUS LONG-TERM PRODUCTIVITY

The proposed project will result in short-term impacts on the environment due to construction activities, will convert agricultural designated lands to more urbanized uses, and will result in increased demands on public facilities and community services. For these sites, impacts are considered minimal when compared with the long-term benefits of providing high quality, accessible educational opportunities to the community in compliance with the State Educational Functional Plan.

Use of the selected site for the new school will result in a long-term commitment of the land to school use which will foreclose other uses of the site such as agriculture, recreation, open space, residential, or commercial. Due in part to the relatively small land area involved and the benefits of providing enhanced educational opportunities, the foreclosure of other land use options is not considered a significant adverse impact.

**SECTION 11 - Irreversible and Irretrievable
Commitment of Resources**

11.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

11.1 IRREVERSIBLE COMMITMENTS OF RESOURCES

The land resources of the selected site will be, for all practical purposes, irreversibly and irretrievably committed to school use. Capital, labor, energy and materials used during the construction phase of the project will be irretrievably committed to school use. Labor, energy, equipment, public facilities and community service resources required for school operation and maintenance will be committed to school use once the project is completed.

SECTION 12 - List of Approvals

12.0 LIST OF APPROVALS

This section includes a description of the required approvals and permits necessary to implement the proposed elementary school project

12.1 Conditional Use Permit (CUP)

A Conditional Use Permit (CUP) is required for all school facilities. Essentially, the CUP process allows for County Planning Department to review the planned extent of structures and the intent of the use in comparison with the underlying zoning classification and surrounding uses. The Planning Director is responsible for the CUP approval.

12.2 State Special Use Permit (SUP)

A State Special Use Permit would be required to locate the proposed elementary school facilities on State Agricultural District lands if any of the sites (Site A, B, C, D, E, or F) is chosen. The State SUP is processed by the County and may be done concurrently with the County CUP.

SECTION 13 - Unresolved Issues

13.0 UNRESOLVED ISSUES

As a result of the assessment conducted for the Final EIS, the following potentially unresolved issues exist with respect to the proposed project.

- The final alignment of the Keaau By-Pass Road has not been officially decided. Currently, the proposed alignment runs along the east side of Keaau Town intersecting Volcano Highway on the far, Hilo-side of town and intersecting Keaau-Pahoia Highway south of Keaau Town.
- The future sewerage options for Sites D, E, and F in Keaau Town are not yet certain. As mentioned in Section 5.0, two discussions are taking place concerning the provision of wastewater treatment systems. Nothing has been finalized. The first is the possible construction of a wastewater treatment plant by W. H. Shipman Ltd. should land use approvals for projects proposed for Shipman lands be granted and development around Keaau Town begin. The second is the possible extension of the sewer line from Hilo to Keaau. For the purposes of this study and because the issue of future improvements has not been finalized, an on-site leech field system was considered for all sites.
- There is presently no public or private water system in Hawaiian Paradise Park. Residents in the subdivision have individual water catchment systems. A preliminary feasibility study for a water supply system based on wells for the Hawaiian Paradise Park Subdivision was completed in January 1993. However, specific action has not yet been taken to develop a water system. In addition, the County Board of Water Supply has mentioned that a 300,000 gallon reservoir is needed to supply the Kurtistown and Paradise Park Sites. Our evaluation indicates a parallel pipe system may be sufficient. This issue will need further resolution.
- The Department of Accounting and General Services has not received written confirmation of free dedication by W. H. Shipman Ltd. for Sites D, E, or F located in Keaau Town.

SECTION 14 - Consulted Parties

14.0 CONSULTED PARTIES

14.1 CONSULTED PARTIES

The following list includes governmental agencies and other individuals who were contacted during the preparation of the Notice of Preparation of an Environmental Impact Statement, the Draft Environmental Impact Statement and the Final Environmental Impact Statement.

Federal Agencies

U.S. Army Corps of Engineers
U.S. Department of the Interior, Fish and Wildlife Services

State of Hawaii

Department of Accounting and General Services
Department of Education
Department of Health
Department of Land and Natural Resources (DLNR)
DLNR State Historic Preservation Division
Department of Transportation
Keaau Elementary and Intermediate School
Office of Environmental Quality Control
Office of State Planning

County of Hawaii

Department of Parks and Recreation
Department of Planning
Department of Public Works, Building Department, Engineering Division
Department of Water Supply
Department of Civil Defense
Keaau Fire Department
Keaau Police Department

Other Parties

Roy Blackshear, W. H. Shipman Ltd.
Marilyn Ednie, Ednie Realty
Tom English, W. H. Shipman Ltd.
Denise Fasciano, Hilo Brokers, Ltd.
Bonnie Goodell, Community Management Associates, Inc.
Hawaiian Electric Company
Tracy E. Lauder
Senator Andrew Levin
Ann Lo-Shimazu, Land Administration, AMFAC/JMB Hawaii Inc.
Gordon McKay, Paradise Park Hui Hanalike
William Moore, William Moore Planning
Peter Morton, Parent Teacher Student Association
Diana Radich
David Rietow, Keaau Agro-Mac, Inc.
A. G. "Sandy" Schaffer
Mrs. Quintell, Quintell Farms

14.2 DEIS MAILED TO THESE AGENCIES AND NO RESPONSE

United States Government
U.S. Department of Agriculture

State of Hawaii
Department of Agriculture

University of Hawaii
Water Resources Research Center

Other Parties

Chairperson Kalani Schutte, Hawaii County Council
GTE Hawaiian Telephone
Keaau Community School Library
Mayor Stephen Yamashiro
Mountain View School Library
Office of Hawaiian Affairs
Pahoa Community School Library
Representative Dwight Takamine
Representative Jerry Chang
Senator Malama Solomon
The Gas Company

SECTION 15 - References and List of Preparers

15.0 REFERENCES AND LIST OF PREPARERS

15.1 REFERENCES

- Community Management Associates, Inc. January 1992
Puna Community Development Plan. Technical Reference Report. Prepared for the County of Hawaii Planning Department.
- County of Hawaii, 1983 Revised
Comprehensive Zoning Ordinance.
- County of Hawaii, November 1989
The General Plan.
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Waianae III Elementary School. Environmental Impact Statement.
- Engineering Concepts, Inc., 1993
Keaau II Elementary School Site Selection Infrastructure Evaluation. Honolulu, HI.
- Federal Emergency Management Agency, September 1988
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- Lao, Chester, January 1993
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- Osorio, Elroy T. L., Certified General Appraiser, February 1992
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- State of Hawaii, Department of Education, 1991
State Educational Functional Plan.
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Educational Specifications and Standards for Facilities.
- The Keith Companies - Hawaii, February 1993
Draft Environmental Impact Statement and Site Selection Study for the New Kapaa Intermediate School.
- United States Department of Agriculture, Soil Conservation Service, December 1973
Soil Survey of the Island of Hawaii.
- United States Department of the Interior, Geological Survey, 1990
Volcanic and Seismic Hazards on the Island of Hawaii. U.S. Government Printing Office.
- University of Hawaii, Department of Geography, 1983
Atlas of Hawaii.
- University of Hawaii, Land Study Bureau, November 1965
Detailed Land Classification - Island of Hawaii.

15.2 LIST OF PREPARERS

This Environmental Impact Statement has been prepared by the planners at GROUP 70 INTERNATIONAL, INC. Architecture • Planning • Interior Design • Environmental Services, 925 Bethel Street, Honolulu, Hawaii 96813, Telephone (808) 523-5866. The staff involved in the preparation of this document included:

Roy Nihei, AIA	Principal in Charge
George Atta, AICP	Project Manager
Mary O'Leary	Planner
Teresa Davidson	Architect
Cookie Tsukano	Graphics
Kathy Hida	Graphics
Chad Asuncion	Graphics

The technical consultant to Group 70 was employed to provide specific assessments of engineering factors for this project.

Kay Muranaka, P.E.

Engineering Concepts, Inc.

Civil Engineering

SECTION 16 - Comments and Responses

16.0 COMMENTS AND RESPONSES

16.1 COMMENTS RECEIVED FOR THE ENVIRONMENTAL IMPACT STATEMENT NOTICE OF PREPARATION (EISPN) AND THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

Listed below are the agencies, organizations, and individuals who received a copy of the EISPN and the DEIS. The table indicates with an "X" those who submitted written comments or letters during the public review period. This list is followed by their comment letters and the responses of the applicant's planning consultant.

	<u>Comments on N.O.P.*</u>	<u>Comments on DEIS **</u>
A. FEDERAL AGENCIES		
U.S. Department of Agriculture, Soil Conservation Service	--	
U.S. Department of the Interior Fish and Wildlife Service	--	X
U.S. Department of the Interior Water Resources Division		X
U.S. Department of the Army, Army Corps of Engineers	X	X
U.S. Department of the Navy Naval Base Pearl Harbor		X
B. STATE AGENCIES		
Office of Environmental Quality Control	--	
Department of Agriculture	--	
Department of Education	--	X
Department of Education, Keauau School	--	
Department of Education, District Superintendent	X	
Department of Accounting and General Services	--	
Department of Health	X	
Department of Land and Natural Resources (DLNR)	X	
DLNR/Historic Preservation Division	X	X
Department of Budget and Finance Housing Finance and Development Corporation		X
Department of Business and Economic Development - Library	--	
Department of Business and Economic Development - Energy Division	--	X
Department of Transportation	X	X
Office of State Planning	X	X
Office of Hawaiian Affairs		X
University of Hawaii, Environmental Center	--	X
University of Hawaii, Water Resources Center	--	

	<u>Comments on N.O.P.*</u>	<u>Comments on DEIS **</u>
C. COUNTY AGENCIES		
Planning Department	--	
Department of Public Works	X	X
Department of Parks and Recreation	--	
Department of Research and Development	X	
Department of Water Supply	X	X
Department of Civil Defense	--	
D. NON-GOVERNMENTAL AGENCIES		
Hawaiian Electric Company	X	
Office of Hawaiian Affairs	--	
GTE Hawaiian Telephone	--	
The Gas Company	--	
E. LIBRARIES		
Keaau Community School Library	--	
Mountain View Community School Library	--	
Pahoa Community School Library	--	
F. INDIVIDUALS & MISCELLANEOUS		
Mayor Stephen Yamashiro	--	
Chairperson Kalani Schutte, Hawaii County Council	--	
Senator Malama Solomon	--	
Senator Andrew Levin	--	
Representative Dwight Takamine	--	
Representative Jerry Chang	--	
Ann Lo-Shimazu, AMFAC/JMB Hawaii Inc.	X	
Gordon McKay, Paradise Park Hui Hanalike	X	
W. H. Shipman Ltd.	--	
William H. Moore Planning	X	
Denise M. Fasciano	X	
Bonnie Goodell	X	X
Diana Radich	X	
A. G. "Sandy" Schaffer	X	
Marilyn Ednie, Ednie Realty	X	
Tracey E. & Keum Soon Lauder	X	X
Peter Morton	X	X
Brooks Maloof	X	X
David Reitow	--	
Muriel Hughes, Mountain View Principal		X
Ginny Aste		X
Robert Arthurs		X
Jon Olson		X

F. INDIVIDUALS & MISCELLANEOUS continued	<u>Comments on N.O.P.*</u>	<u>Comments on DEIS **</u>
Edward Clark		X
Mae Kaler		X
Milsuko Lau		X
David Taylor		X
Kristen Macdonald		X

* N.O.P. stands for Notice of Preparation

** DEIS stands for Draft Environmental Impact Statement

16.2 COMMENTS AND RESPONSES

The following section includes letters sent to the Department of Accounting and General Services (DAGS) containing comments from government agencies, community organizations and individuals regarding the Draft Environmental Impact Statement (DEIS) and the previous Environmental Impact Statement Notice of Preparation (EISPN) for the Keaau II Elementary School project. Response letters prepared by Group 70 International, Inc., on behalf of DAGS are enclosed.

Maui

WILLIAM L. MOORE PLANNING

411 HAILI STREET
HILO, HAWAII
PHONE/ FAX (808) 935-0311

RECEIVED

MAR 19 9 26 AM '93
DR. ALAN GARSON

February 26, 1993

Dr. Alan Garson, District Superintendent
Department of Education, Hawaii District
75 Aupuni Street
Hilo, Hawaii 96720

Dear Dr. Garson:

Subject: Potential Schools Sites
Keaau, Hawaii

This is to follow up with respect to our meeting of January 15, 1993 regarding the location of potential schools sites in the vicinity of Keaau.

As you are aware, W.H. Shipman (WHS) Ltd., is in the process of developing its conceptual land use plan for the lands in and around the Village of Keaau. As part of this planning effort, we have been identifying potential school sites in order to assure that these sites are appropriately integrated with the surrounding uses, infrastructure systems including roads, water, and sewer, and land forms including drainage ways and other physical constraints.

As part of this process, we have identified potential sites for an elementary school facility as well as a high school facility. It is our understanding that the area requirements for these respectively facilities are approximately 8 acres for an elementary school if there is an adjacent active park facility, otherwise approximately 12 acres of land would be required. A high school complex would require between 30 and 50 acres of land.

The potential sites are shown on the attached map. A brief description of the some of the reasoning for the sites are provided below:

Elementary School Site No. 1

This site is located between the existing Keaau-Pahoa Road and a proposed new road identified as "Road B". Until such time as the Keaau By-Pass is constructed, Road B is intended to provide an alternative route around Keaau Village. Consequently, while the Keaau-Pahoa Road is currently a high volume road, as the proposed development is begun, traffic on the section of the existing Keaau-Pahoa Road fronting the proposed school site as well as the existing Keaau School facility will be greatly reduced.

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Another key feature of this site is the existence of an canoe-haul underpass which crosses the Keaau-Pahoa Road and is also shown on the attached map. This underpass is proposed to be converted to a pedestrian way. It will allow for residents of the Kula Keaau Subdivision as well as the proposed new development areas makai of the Keaau-Pahoa Road to reach the school site without having to cross a major roadway.

This site is relatively level and does not appear to have any physical constraints for the development of a school. There is an existing drainage channel to the north of the proposed school site. This area is tentatively proposed to be incorporated into a neighborhood park which will be adjacent to the proposed school site.

Elementary School Site No. 2

This site is situated makai of the existing Keaau Village and was identified as a potential site during earlier discussions with the Department of Education (DOE). This site is relatively level and does not appear to have any physical constraints for the development of a school.

However, this site may require the development of major off-site infrastructure, including completion of Road B as well as major improvements at the Road B-Volcano Road intersection. While these improvements are proposed as part of the W.H. Shipman overall development, there is no assurance at this time that they can be completed on the elementary school's development schedule.

High School Site No. 1

This site is situated makai of the existing Keaau-Pahoa Road. It is the only feasible site on the eastern (makai) side of the Volcano Highway within or adjacent to Keaau Village.

This site was considered because it provides for right turn traffic movements for students coming from Kurtistown and other Mauka areas.

The actual use of this site will require additional road improvements including the development of Road B. In addition, although the Keaau By-Pass alignment has not been set by the State Department of Transportation, its development will greatly increase the feasibility of this site from a traffic standpoint.

..... FEB 12 1993 07:15 TRAFFIC LIGHT .. 809 P34

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February 26, 1993
Page No. 3

If this site is not considered for the High School, a portion of it may also be considered for the Elementary School as well.

High School Site No. 2

This site is on the west side of the Volcano Highway, immediately north of the Shipman Park. It is relatively level and does not appear to have any major development constraints.

The use of this site would require major intersection and roadway improvements to ensure there is appropriate traffic circulation.

We hope this provides you with a starting point for your consultant as he begins your formal site selection process. As we stated in our meeting, we are looking forward to working with you in solving a tremendous need in our community.

At the same time, we ask that you consider WHS's plans as well as those of other landowners and other State and County Agencies including the Department of Transportation to ensure the school sites are selected and developed in a manner which provides for the best long term integration of the school with the surrounding land uses, road and other infrastructure systems.

We appreciate the opportunity to provide you with our thoughts on this matter and look forward to continued discussion with you and your consultants on the location of the school site.

Should you have any questions or require any further information, please feel free to call me at 935-0311.

Sincerely,

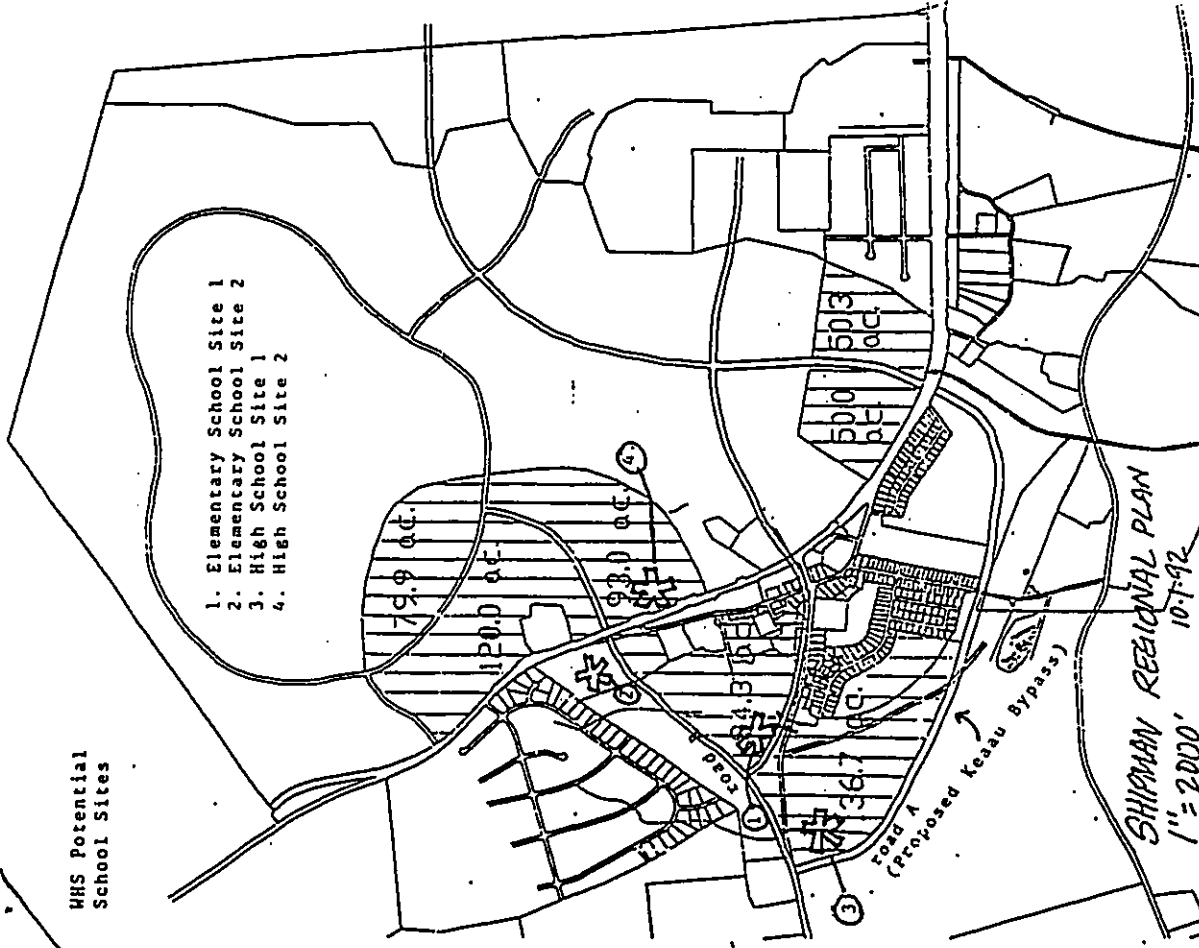
Bill Moore
William L. Moore

attachment

cc: Lester Chuck, CIP Planner
Ralph Morita, DAGS Planning
W.H. Shipman, Ltd.

MHS Potential School Sites

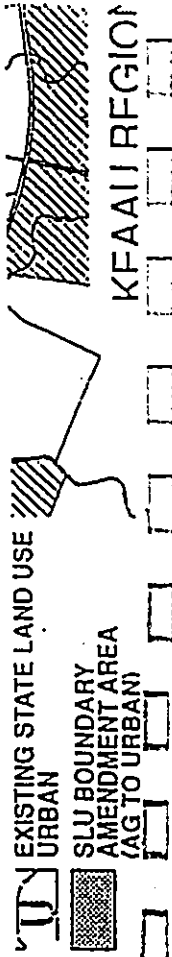
1. Elementary School Site 1
2. Elementary School Site 2
3. High School Site 1
4. High School Site 2



PAGE # 0.

17:18

1992-10-01



JOHN WADSWORTH
GOVERNOR



OCT 19 1993

ROBERT P. TANUSH
COMPTROLLER
LLOYD I. UMEKASAMI
DEPUTY COMPTROLLER
(P) 1731.3

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 115, HONOLULU, HAWAII 96810

OCT 14 1993

Mr. William L. Moore
William L. Moore Planning
411 Haili Street
Hilo, Hawaii 96720

Dear Mr. Moore:

Subject: Keaau II Elementary School
Site Selection and EIS

Thank you for your February 26, 1993 comments to Dr. Alan Garson on the subject project which were subsequently referred to the Department of Accounting and General Services for further handling. Our responses to your comments are as follows:

1. Your letter identified two elementary and two high school sites for potential school sites. For your information, the present site selection study is limited only to the elementary school sites.
2. As presented at the community meeting at Keaau School on September 23, 1993, three of the sites listed in your letter remain on the short list of six candidate sites for the Keaau II Elementary School. The comments in your letter were considered in the initial assessment of potential sites. The remaining sites will be evaluated further in the next phase of the study which will include an EIS and a site selection report.

We appreciate your input for this project. If there are any questions regarding this project, please call Mr. Allen Yamanoha of the Planning Branch at 586-0483.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. Paul Kiyabu
Mr. George Atta

HCR 6415
Keaau, HI 96749
Phone: (808) 966-7705
March 8, 1993

Mr. George Atta
Group 70 International
924 Bethel Street
Honolulu, HI 96813

Re: Site Selection of the Keaau Phase II Elementary School

Dear Mr. Atta:

In 1989, the seventh and eighth grade students from Mountain View School were moved to Keaau School. At that time, the parents and staff of Keaau School were assured by Hawaii District Superintendent, Dr. Alan Garson, and Department of Accounting and General Services Superintendent, Mr. Herbert Watanabe, that the resultant overcrowding and associated discipline problems at our school would be alleviated with construction of a new elementary school to begin "within five years."

On January 20, 1993 a contingent of parents and community members were told by Mr. Lester Chuck, Acting Director of C.I.P. Facilities, that an outside consultant responsible for site selection of the Keaau Phase II Elementary School would be chosen within a few weeks. That same evening, Dr. Garson informed faculty and parents assembled at Keaau for an informational meeting on school-community based management that site selection was already in progress! Understandably, parents are confused - just what discussions have taken place between D.O.E. officials and landowners of proposed school sites since 1989? What was the nature of these discussions? Who were the landowners contacted?

The March 3, 1993 general membership meeting of the Keaau School PTSA was dedicated to providing information about the proposed new elementary school. Public Schools Superintendent Charles Toguchi, Board of Education member Dr. Robert Fox, Dr. Garson, Mr. Lester Chuck, and several Big Island council members were also present. At this meeting Mr. Ron Phillips of the Paradise Hui Hanalike announced that the Hui Action Committee was submitting a proposal to the general Hui membership that a twenty acre parcel within Hawaiian Paradise Park Subdivision be sold to the State of Hawaii for use as a public elementary school site. The proposed price to be paid by the state is one U.S. dollar.

As president of Keaau School PTSA, I request that full and equitable consideration be given to the Paradise Hui Hanalike's generous proposal. I believe that Hawaiian Paradise Park (H.P.P.) would make an excellent site for an elementary school for the following reasons:

1. The price is right.

2. H.P.P. is a central location for much of Keaau School's student population. In 1991, a survey of Keaau School students was directed by Principal Nanette Hiraoka. At that time, it was learned that about 500 students, or nearly half of the Keaau students at that time, lived in H.P.P. Subdivision. Within a couple of years the number of students attending Keaau School and living in H.P.P. will exceed 700.

3. H.P.P. is the center of the population explosion taking place in Puna. More than thirty percent of the building permits issued in Puna during the past several years are in H.P.P. alone.

4. The concept of a magnet school situated in Keaau and serving all the subdivisions and communities in the present Keaau School District is absurd and would result in an elementary school of monstrous proportions. The first and second construction increments outlined in the present proposed C.I.P. budget consist of 14 and 12 classrooms respectively, for a total of 26 classrooms. A school of this size would barely accommodate the expected number of students living in H.P.P. four years from now.

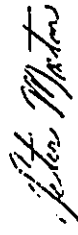
Further, plans to build the Keaau Phase II Elementary School within, or in close proximity to, W.H. Shipman Co.'s proposed 2000 lot subdivision in Keaau should be reconsidered.

One net effect of building the Keaau Phase II Elementary School in Shipman's subdivision will be the unnecessary transport of more than 700 students from their homes in H.P.P. to attend school in another (Shipman's) subdivision.

According to Mr. Lester Chuck, if Shipman Co.'s subdivision is approved, yet another elementary school in the present Keaau School District must be built. Shipman's proposed subdivision should not be approved until plans and funding for that second elementary school are secured.

In light of the fact that the County of Hawaii and the State of Hawaii are having difficulty providing infrastructure to the existing subdivisions in Puna, it is quite likely that there will be strenuous community opposition to another large subdivision in Puna.

In conclusion, I ask that all possible sites be taken into consideration so that the best possible location for the school can be selected. I would appreciate a written response from you. Thank you!



Peter Morton
President
Keaau PTSA

HI WAHEE
JOHNOR



ROBERT P. TANIUCHI
COMPTROLLER
LLOYD T. UMEBAYASHI
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 116, HONOLULU, HAWAII 96810

LETTER NO. [P]1194.3

MAR 31 1993

Mr. Peter Horton
President
Keaau PTSA
HCR 6415
Keaau, Hawaii 96749

Dear Mr. Horton:

Subject: Keaau II Elementary School
Site Selection and EIS

Thank you for your March 8, 1993 comments to Group 70 International on the subject project, which was referred to us for a response. Your preference for the Hawaiian Paradise Park site will be considered in the site selection process.

We appreciate your input for this project. If there are any questions regarding this project, please call Mr. Allen Yamanoha of the Planning Branch at 586-0483.

Very truly yours,
Gordon Matsuoaka
GORDON MATSUOKA
State Public Works Engineer

AY:jk

Ms. Diana Radich
P. O. Box 2113
Keaau, HI 96749

6/17/93

Mr. Fujiwara:

This letter is in regards to your survey for a proposed Keaau Elementary School. I am a member of the Paradise Hill, Hawaii, Ke and we have already a few joint names on this issue. We may receive many letters in favor of a site in Paradise Park. But you may not know that there is also great opposition to this site for many factors. I feel as though your survey public attitudes also on the choice sites before your public information meeting. This could save time in the long run. Your consideration in this matter is greatly appreciated.

RECEIVED
JUN 21 8 24 AM 1993
STATE OF HAWAII
DEPT. OF ACCOUNTING AND GENERAL SERVICES

Diana Radich



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 115, HONOLULU, HAWAII 96810

JOHN WAIKOE
GOVERNOR

ROBERT P. YAMUSHI
COMPTROLLER
LLOYD L. UEBASAMA
DEPUTY COMPTROLLER
LETTER NO. (P) 1464.3

JUN 30 1993

Ms. Diana Radich
P. O. Box 2113
Keaau, Hawaii 96749

Dear Ms. Radich:

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your letter of June 17, 1993 expressing your thoughts and concerns regarding the Paradise Park Site.

At the moment only one site in Paradise Park has been formally nominated as a potential site for the Keaau II Elementary School. We are currently in the early phases of site selection and have made no decisions about which site will be included. We will be performing a broadscale analysis of all sites proposed and deleting sites that do not meet minimum criteria. Our presentation before the community will not recommend a specific site. It will represent a short list of sites that meet various technical criteria.

The issue you raise of community input and consensus is important. After the community presentation of alternative sites, we will be entering an EIS process where community review and input will be officially requested. We hope to assess community concerns more completely and formally during that process. However, comments and concerns are welcome at any time.

Thank you again for your concerns.

Very truly yours,
Gordon Matsuoaka
GORDON MATSUOKA
State Public Works Engineer

AY:jk



MEMORANDUM
DEPARTMENT OF EDUCATION

School or Division
Mountain View Elementary School

Morita UK

To: Mr. Ralph Morita
From: A.G. "Sandy" Schaffer, President, Mountain View PTSA
Date: June 21, 1993
Subject: Building site selection for new Puna District H.S./elementary school



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

JOHN WADSWORTH
GOVERNOR

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UHEBASAMI
DEPUTY COMPTROLLER
LETTER NO. (P)1527.3

JUL 15 1993

Dear Mr. Morita,

A number of weeks ago I became aware of a parcel of land in Puna that might serve as an excellent location for the much needed expansion of facilities here on the Island of Hawaii. The exact parcel I feel so strongly about is noted by Tax Map Key #317-17-149, Lot 11-A, area of 49.69 acres. This property is listed at \$399,000.00, and is zoned AG-20.

This location I am certain will interest you in that it is available immediately, and offers enough area for high school or HS/intermediate school, or elementary combinations. It is near but not fronting Hwy 11. It has its own access via Huina Road (recently widened and resurfaced) or perhaps through a new subdivision planned immediately adjacent to this site and Hwy 11. The property is on a high elevation lot, catching the trade winds and offering somewhat of a view of lower Puna. Lastly, the property has county water and power and needs no great outlay of funds for infrastructure.

This is starting to sound like quite a sales pitch, but really I am not a broker. I only have the interests of our keiki here in mind. We really need to eliminate the gross overcrowding situation that exists here in the Puna district. Please give this site serious consideration as time is of utmost importance. The need for additional facilities in the area is already a year or two late!

I have discussed this idea with the President (nominee) of the Keau School PTSA, Denise Fasciano. Denise is also the Puna Committee Council Education Chairperson. She is a realty agent with Hilo Brokers and can be contacted for more information regarding this parcel (#969-9400).

If I can be of any further assistance, please call or write me at - P.O. Box 910, Mountain View, Hawaii, 96771 (phone - 968-8531).

Mahalo for considering this request.

- 1 - Mr. P. Takushi
- 1 - Mr. L. Uhebasami
- 1 - Mr. J. Wadsworth
- 1 - Mr. R. Morita
- 1 - Mr. A.G. Schaffer
- 1 - Mr. G. Matsuo
- 1 - Mr. G. Garson
- 1 - Mr. G. Atta
- 1 - Mr. P. Kiyabu
- 1 - Mr. A. Garson

Mr. A. G. "Sandy" Schaffer
President
Mountain View PTSA
P. O. Box 910
Mountain View, Hawaii 96771

Dear Mr. Schaffer:

Subject: Keau II Elementary School
Site Selection/EIS
DACS Job No. 11-16-6084

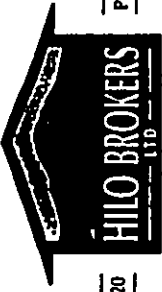
Thank you for your June 21, 1993 letter regarding the 49.69-acre parcel in Kurtistown. We will place the site in our list of potential school sites for consideration.

We are in the early phases of site selection and will evaluate sites according to basic minimum criteria. The advantages you mentioned will be reviewed in our evaluation. We will contact you if we need further information or assistance.

Thank you again for your comments and concerns.

Very truly yours,
Gordon Matsuo
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta w/copy of letter
Mr. Paul Kiyabu w/copy of letter
Dr. Alan Garson w/copy of letter



80 Pauahi Street, Suite 105 • Hilo, HI 96720

Phone 808.969.9400 • Fax 808.969.7900

WP

Merita

MEMORANDUM
DEPARTMENT OF EDUCATION

Mountain View Elementary School
School Division

To: Mr. Ralph Morita Date: June 21, 1993
From: A.G. "Sandy" Schaffer Subject: Building site selection for new Puna District H.S./elementary school
President, Mountain View PTSA

RECEIVED
JUN 23 9 22 AM '93

June 21, 1993

Mr. Ralph Morita
D.A.G.S.
Division of Public Works
P.O. Box 118
Honolulu, HI. 96810

RE: School Sites for Keauu Schools.

Dear Mr. Morita,

I'd like first to introduce myself to you. My name is Denise Fasciano. I have lived in Kuniti town since 1978. I have two school age children that attend Keauu School. I am a current nominee for the Keauu PTSA President. I am also the Education Chairperson for the Puna Community Council. I happen to also have a career in Real Estate.

I have been hoping to obtain information regarding school sites for Keauu Schools. I know Shipman and Hawaiian Paradise Park have both offered land for possible sites. I'd like to include two other possible sites.

1. 3/1-7-17:149 49.69 acres 1000 feet off Hwy 11 on Huina Road. Enclosed is information on this site. This would be ideal for a New Elementary School and also a perfect site for a high school. This to me is the better site where as two or three schools could be built on the property, with plenty of space for sports fields and future uses. Plus it is not right on the Hwy 11 and located next to a new one acre subdivision.!!!!!!
2. 3/1-7-17:003 4.30 Acres on the mauka side on Hwy 11 next to the Kuniti town park. The only possibility is one school site.

Enclosed are maps for both properties. I would like to help any way I can with the acquisition for the sites for Keauu School. I am also glad that you have seek the public's input and help for their new future schools. This is a number #1 priority for many folks in Puna and Hilo. Enclosed is a Memorandum from Mt. View School. Call me if you need any assistance Mahalo. (1-969-9400 office, 1-969-7900 Fax, 1-966-7285 home)

Sincerely,
Denise Fasciano
c/o N. Fasciano (RA)
c/o Brokers, Ltd
PCC Education Chair.

Robert Fox (BOE)
Puna Community Council
Keauu School
Mt. View School
MLS

Dear Mr. Morita,
A number of weeks ago I became aware of a parcel of land in Puna that might serve as an excellent location for the much needed expansion of facilities here on the Island of Hawaii. The exact parcel I feel so strongly about is noted by Tax Map Key #317-17-149, lot 11-A, area of 49.69 acres. This property is listed at \$399,000.00 and is zoned AG-20.

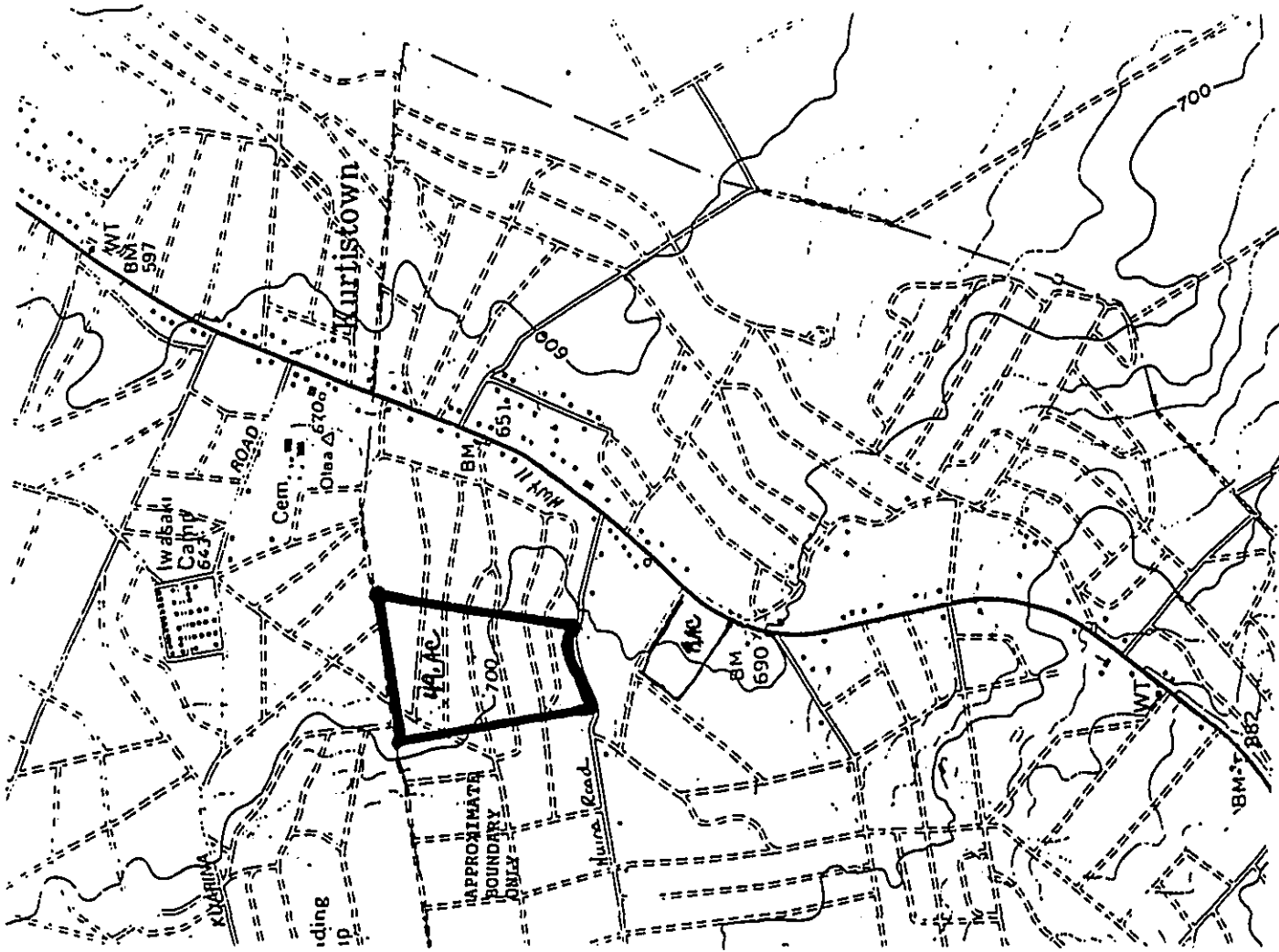
This location I am certain will interest you in that it is available immediately, and offers enough area for high school or HS/intermediate school, or elementary combinations. It is near but not fronting Hwy 11. It has its own access via Huina Road (recently widened and resurfaced) or perhaps through a new subdivision planned immediately adjacent to this site and Hwy 11. The property is on a high elevation lot, catching the tradewinds and offering somewhat of a view of lower Puna. Lastly, the property has county water and power and needs no great outlay of funds for infrastructure.

This is starting to sound like quite a sales pitch, but really I am not a broker. I only have the interests of our keiki here in mind. We really need to eliminate the gross overcrowding situation that exists here in the Puna district. Please give this site serious consideration as time is of utmost importance. The need for additional facilities in the area is already a year or two late!

I have discussed this idea with the President (nominee) of the Keauu School PTSA, Denise Fasciano. Denise is also the Puna Committee Council Education Chairperson. She is a realty agent with Hilo Brokers and can be contacted for more information regarding this parcel (#969-9400).

If I can be of any further assistance, please call or write me at - P.O. Box 910, Mountain View, Hawaii, 96771 (phone - 968-8531).

Mahalo for considering this request.



80 Paahahi Street, Suite 105 • Hilo, HI 96720

Phone: 808.969.9400 • Fax: 808.969.7900

Denise N. Fasciano (RA)

KURTISTOWN ACREAGE

Prime acreage on Huina Road, just off Volcano Highway. Super ocean and mountain views, just minutes from downtown Hilo.

LOCATION: Huina Road, Kurtistown, County and State of Hawaii

DIRECTIONS: From Hilo head south on Highway 11 and pass through Keau and Kurtistown. At Chevron Gas Station in Kurtistown, turn right on Huina Road. Property is on right side, approximately 1,000 feet from Highway. Look for Hilo Brokers, Ltd. sign.

TAX MAP KEY: 3-1-7-17-149

LAND AREA: 49.69 acres

LAND TENURE: Fee Simple

ZONING: AG-20

VIEWS: ocean and mountain

UTILITIES: Electric and telephone border property, county water is available on Volcano Highway.

ACCESS: paved Huina Road

MLS#: 50954

PRICE: \$399,000

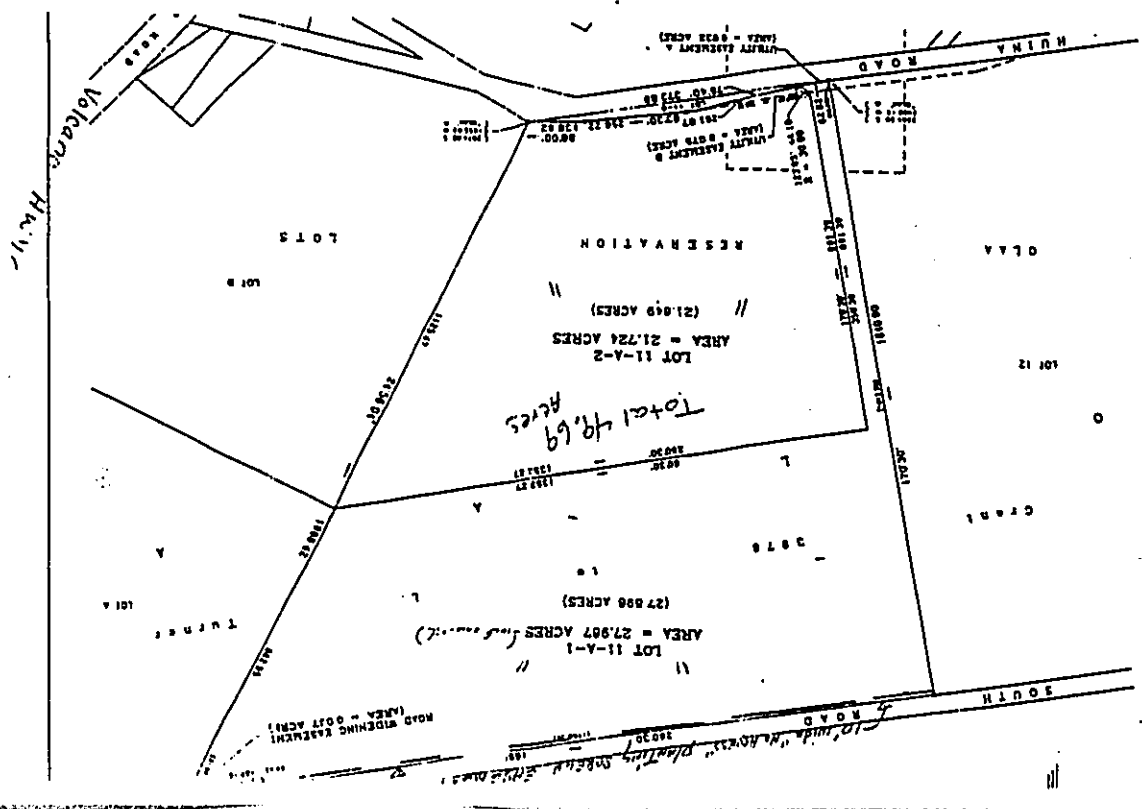
49. AC
8.30 Acres
 Residential Vacant Land
 Kurtistown, Puna District, Hawaii



8. AC

PROPERTY TYPE Simple Land	TOPOGRAPHY Irregular, sloping up from the highway.
LOCATION Property is located in Kurtistown next to the County park on State Highway 11, two miles from Keauau Town Center and approximately 10 miles from Hilo Airport. TMK (3) 1-7-003:017.	UTILITIES Electric service: Hawaiian Electric Light Co. Telephone: Hawaiian Tel Cable TV: Jones Spacelink County Water Service
SIZE 8.30 Acres	FEATURES Possible subdivision or condominium property regime development. Near Keauau Town Center and only minutes to Downtown Hilo. Attractive location next to County park.
ZONING State: Agriculture County: Residential - 20,000 square feet density	PRICE \$345,000

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JOHN WAIKANE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 118, HONOLULU, HAWAII 96819

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD L. UMBASAM
DEPUTY COMPTROLLER
LETTER NO. (P) 1476.3

JUN 30 1993

Ms. Denise M. Fasciano
Hilo Brokers, Ltd.
80 Pauahi Street, Suite 105
Hilo, Hawaii 96720

Dear Ms. Fasciano:

Subject: Keanu II Elementary School
EIS Consultation Phase

Thank you for your June 21, 1993 comments regarding the subject project. Our responses to your comments are as follows:

1. Both sites will be considered in our site selection process.
2. The site selection process for the high school is not included in the site selection effort for the Keanu II Elementary School. Please be assured that we will keep in mind the 49.69-acre site when the site selection process for the high school is initiated.
3. Your points about the advantages of the site are part of our criteria for the site selection process and will be used in evaluating all of the sites.

We appreciate your input for this project.

Very truly yours,
Gordon Matsuo
GORDON MATSUOKA
State Public Works Engineer

AY:jk

SENT BY FAX

11:09-0-93 12:58PM

PLANNING BRANCH

000523976:2

White WR

EDNIE REALTY
MARILYN EDNIE, PRINCIPAL BROKER
142 KINOOLE ST., #2
HILO, HI 96750

JUNE 21, 1993

DEPARTMENT OF EDUCATION
BLDG. SITE KEAAU ELEMENTARY SCHOOL
DEPARTMENT OF ACCOUNTING & GENERAL SERVICES
ATTN: MR. RALPH MORITA
P.O. BOX 118
HONOOLULU, HI 96810

DEAR MR. RALPH MORITA:

ENCLOSED PLEASE FIND THE 10 ACRE PROPERTY THAT IS CURRENTLY ON THE MARKET FOR SALE. THIS PROPERTY IS BEING SUGGESTED AS THE SITE FOR THE KEAAU ELEMENTARY SCHOOL. THIS PROPERTY IS ADJACENT TO THE KEAAU ELEMENTARY SCHOOL. THE ADJACENT PARCEL CAN BE PURCHASED FROM SHIPMAN. IT HAS ALWAYS BEEN CONSIDERED BY SHIPMAN TO BE AN IDEAL EXTENSION FOR THE HENRY OFUKAHAA SCHOOL. PROPERTY WHICH IS TRAC: (01)-6-04-51.

THIS PARCEL (01)-6-04-51 IS CURRENTLY ON THE MARKET FOR \$1,000,000. THE ADJACENT PARCEL (01)-6-04-50 CAN BE PURCHASED FROM SHIPMAN. CONTACT PERSON IS BOB COOPER.

I HAVE ENCLOSED A COPY OF THE APPRAISAL THAT WAS DONE ON HENRY OFUKAHAA SCHOOL. THIS IS AN IDEAL SITE FOR THE DEPARTMENT OF EDUCATION TO ACQUIRE.

PLEASE CALL ME IF YOU WOULD LIKE TO GAIN ACCESS TO THE PROPERTY FOR AN ON SITE FIRST HAND REVIEW OF ITS MANY AMENITIES. THIS PROPERTY AS A SPECIAL USE PERMIT IN PLACE WITH THE COUNTY OF HAWAII FOR SCHOOL USE, EVEN THOUGH IT IS ZONED AO 20.

BY PURCHASING THIS PROPERTY AND THE ADJACENT 10 ACRES FOR A TOTAL OF 20 ACRES WITH THE 10 ACRES ALREADY DEVELOPED WOULD SEEM TO BE A VERY GOOD AND PRUDENT MOVE BY THE DEPARTMENT OF EDUCATION.

I HOPE TO HEAR FROM YOU SOON.

THANK YOU.

SINCERELY,

Marilyn Ednie

MARILYN EDNIE, REALTOR
PRINCIPAL BROKER, CREI
913-4445
FAX: 513-1193

JOHN WARHEE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 118, HONOLULU, HAWAII 96810

OCT 19 1993

LETTER NO. (P)1734.3

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD LINEBASKI
SPOUTY/COMPTROLLER

OCT 15 1993

Ms. Marilyn Ednie
Principal Broker
Ednie Realty
142 Kinoole Street, #2
Hilo, Hawaii 96720

Dear Ms. Ednie:

Subject: Keaau II Elementary School
Site Selection and EIS

Thank you for your June 25, 1993 letter on the Henry Opukahaia School site. The information in the appraisal report was helpful and your thoughts on the utility of the site and the adjacent Shipman property were considered. Based on the minimum site criteria, the site was dropped for the following reasons:

1. The 10-acre site is insufficient for the projected full development of the Keaau II Elementary School. The suggested expansion requires negotiations with more than one landowner and consequently results in greater complexity.
2. The school site being next to the Humane Society facility and the County's solid waste transfer station nearby were seen as negatives.
3. The restricted access condition on the existing special use permit was also seen as an added complication.
4. Finally, the renovation costs and purchase price made the site less attractive from a cost standpoint when compared to other sites.

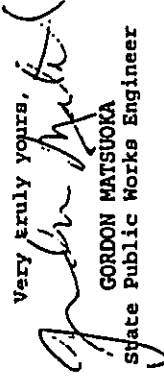


Ms. Marilyn Ednie
Page 2

Ltr. No. (P)1734.3

We appreciate your input for this project. If there are any questions regarding this project, please call Mr. Allen Yamanoha of the Planning Branch at 586-0483.

Very truly yours,


GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. Paul Kiyabu
Mr. George Atta

Metric WR

Tracey E. and Keum Soon Lauder
Post Office Drawer "D", Kurtistown, Hawaii, 96760
Phone: 808-966-6686

RECEIVED:
JUN 25 8 05 AM '93
DIV. OF PUBLIC WORKS
3463

ROBERT P. TAKUSHI
COMPTROLLER
LLOYDI UMEBASAMI
DEPUTY COMPTROLLER
LETTER NO. (P)1490.3



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P O BOX 118, HONOLULU, HAWAII 96818

MR. RALPH MORITA
DIVISION OF PUBLIC WORKS
DACS, STATE OF HAWAII,
POST OFFICE BOX 118
Honolulu, Hawaii, 96810

REFERENCE: SITE SELECTION
NEW KEAAU ELEMENTARY SCHOOL

24 June 1993

JUL 6 1993

ALOHA MR. MORITA:

I really don't know how to begin this letter, but there are two (2) things I want you to know, I want to work with you and your staff to bring the site selection to an amiable solution, which is going to be difficult due to the various ideas of members of the community. I know I started on this project over three (3) years ago within the Hawaii County & State Democratic Party and the Hawaii State Legislature.

Secondly the Henry Opukahaia site is just not feasible.

What scares me the most is the duplication of design cost running all through the DOE's Summary of CIP Request for Fiscal Biennium 1993-1995 an elementary school class room should be the same for ALL schools within the State of Hawaii, only possible difference would be the Plot Plan.

I have heard from W. H. SHIPMAN, Ltd. and Paradise Park Hui Hanalike and I know what they expect in return for donating land for DOA's construction within this area.

The KEAAU/PAHOA ROAD is a total disaster and now the KEAAU/VOLCANO ROAD is fast becoming the same thing, if you can obtain the land from Paradise Park it would be close to the population base for the elementary school, and you might as well face facts by the time this new school is completed another elementary school will be required for Kurtistown side of Keauau and at the same time the High School will be required for Keauau.

I'm here to help and I don't want any pay for my services. I know it is hard, as many other areas of the State of Hawaii have the same requirements, but no more MONEY?

Call me if you need any help whatsoever.

Tracey E. Lauder
TRACEY E. LAUDER

Residence and Nursery located: 17-898 Ola'a Road
Kurtistown, Hawaii 96760

Mr. Tracey E. Lauder
Post Office Drawer "D"
Kurtistown, Hawaii 96760

Dear Mr. Lauder:

Subject: Keauau II Elementary School
EIS Consultation Phase

Thank you for your June 24, 1993 letter regarding your offer to assist in the site selection study for the New Keauau II Elementary School. We appreciate your observations and concerns and will consider them in our assessments. With reference to the specific comments in your letter, we offer the following responses:

1. The feasibility or adequacy of the Henry Opukahaia site will be evaluated in the site assessment study being conducted. The assessment will be using technical criteria based on the Department of Education's (DOE) specifications and requirements for schools. We understand your concern about the standardization of classroom designs and wish to inform you that the DOE does have design standards for all elementary schools. However, due to changing technologies, different material specifications, differing climatic conditions, and innovations in instructional methods and equipment, the issues are much more complex. Cost savings in design is a concern for the Department of Accounting and General Services and we will continue to look at ways to save public funds, including greater standardization.
2. With regard to W. H. Shipman, Ltd. and Paradise Park Hui Hanalike, we have also had direct contact with both organizations and will continue to consult with them during the site assessment process.

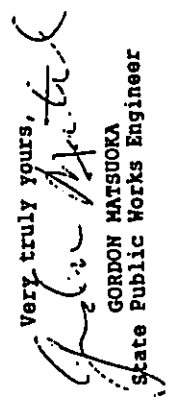


Mr. Tracey E. Lauder
Page 2

4. Your comments about the Keaau/Pahoia Road and the Keaau/Volcano Road are noted. However, those issues must be addressed by the State Department of Transportation.
5. Finally, with regard to the need for two additional elementary schools and the high school, the DOE is clearly aware of the need for more facilities. However, the scope of the present study is to look only at the next elementary school site. Your comments will be noted and passed on to the DOE for further handling.

We appreciate your desire to participate and your offer to help. At this point, the technical consultant, Group 70 International, Inc., is going through a broadscale evaluation to screen and reduce the number of potential sites to a more realistic and manageable number. A shorter list of potential sites will result from this list. This list and the results of the study will be presented by the DOE to the community in a meeting sometime in September. At that point, we will begin the EIS review process. You are welcome to submit your comments and concerns at any time during this process.

Thank you again for your comments and concerns.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

AY:jk

Morita

Paradise Hui Hanalike

SR 11000
Keaau, Hawaii 96749

JOHN WAREE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 118, HONOLULU, HAWAII 96818

ROBERT P. TARUSHI
COMPTROLLER
LLOYD I. UREBASAKI
DEPUTY COMPTROLLER

LETTER NO. (P) 1589.3

July 24, 1993

RECEIVED
JUL 27 8 13 AM '93
DIVISION OF PUBLIC WORKS

Ralph Morita
D.A.G. Planning
P.O. Box 119
Honolulu, HI. 96810-0119

Dear Mr. Morita,

The 20 acre parcels shown to Group 70 are owned by Paradise Hui Hanalike.

At the General Meeting of Paradise Hui Hanalike members on July 20, 1993, it was confirmed that any of the three properties shown to the representatives of group 70 are intended to be given without charge to the State Department of Education for the purpose of building a school.

Thank you for your interest,

Gordon McKay
Gordon McKay
Pres.

AUG 6 1993

Mr. Gordon McKay
President
Paradise Hui Hanalike
SR 11000
Keaau, Hawaii 96749

Dear Mr. McKay:

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your July 24, 1993 letter regarding your generous offer to donate one of the school sites shown to Group 70 International during their field trip. Your offer will be given due consideration in the next phase of our site selection study.

Thank you again for your continuing interest and participation in the Keaau II school site selection process.

Very truly yours,

Gordon Matsushoka
GORDON MATSUOKA
State Public Works Engineer

AV: jk
cc: Mr. Paul Kiyabu, DOE
Mr. George Atta, Group 70 International

DIVISION OF PUBLIC WORKS	
INTERNAL CONTROL	
State P.W. Eng.	Approval
P.W. Secy	Sign
Staff Serv. Br.	Info
Planning Br.	AA File
Prog. Mgmt. Br.	See me
Design Br.	Comments
Imp. Br.	Invest 4
Qual. Cont. Eng.	Repl
Leasing Serv. Br.	



Hawaiian Electric Company, Inc. - PO Box 2750 - Honolulu HI 96840 0001



William A. Bonnet
Manager
Environmental Department

August 3, 1993

NO RESPONSE NECESSARY
AT THIS TIME.

Mr. George Atta
Group 70 International
924 Bethel Street
Honolulu, Hawaii 96813

Dear George:

In followup to our conversation last week, I am sending some general background material on EMF which may be of use to you. I'm also enclosing two fairly recent articles: one relating to measurement of fields from transmission lines, the other addressing measurement in schools. Hope this helps.

Sincerely,

William A. Bonnet

Enclosure

An HEI Company

Brooks Maloof
P.O. Box 1616
Paahoa, HI 96778
August 26, 1993

Peter Morton
HCR 6415
Keaau, HI 96749

Mayor Stephen Yamashiro
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mayor Yamashiro,

We request that a public water system be developed in Hawaiian Paradise Park using the Federal Emergency Management Agency funds, approximately \$2.5 million (including 25% matching), approved as replaceable losses at Kalapana in 1990.

We understand that Hawaiian Paradise Park best meets the FEMA requirements because:

- 1) HPP is in Lava Flow Hazard Zone 3, so meets FEMA requirements that the projects be in an area of Puna of lower hazard than Kalapana.
- 2) HPP is the most credible location for safe relocation of Kalapana residents and, in fact, already is the home of a number of those displaced from Kalapana.
- 3) A water system, especially to support a school in HPP, would encourage new Puna residents to settle outside of Lava Flow Hazard Zones 1 and 2, exactly meeting the intent of FEMA rules.

We understand that proposals have been made for projects in Paahoa, Pohoiiki and Kapoho, and that some of the funds have already been used, but that those projects may be inconsistent with FEMA rules because:

- 1) They are in Lava Flow Hazard Zones 1 and 2, the same or higher than Kalapana.
- 2) The increased capacity provided by these projects will allow and encourage specific new, large subdivisions in high hazard areas, on lands owned by Amfac, Bishop Estate, and Richfield, violating the hazard mitigation plan for the Kalapana disaster, the Hazard Mitigation Team Report.
- 3) The new subdivisions that will make use of the increased capacity in Kapoho and Pohoiiki will pay a capacity fee at the time of subdivision, reimbursing the County Department of Water Supply for the FEMA money spent. This is inconsistent with FEMA rules requiring that the money not be spent for a project for which the mechanism to provide payment is already in place.

The specific project we propose is a water well, pumping station, storage tank and limited distribution, to support, at least initially, a new elementary school on Katoli Drive. As you may know, HPP has offered three sites for consideration to the Department of Education for the new Keaau Elementary School. Since most children at Keaau Elementary come from the central subdivisions we believe it is time that schools began to go into the subdivisions.

Since the window to apply for use of the FEMA funds runs out some time next year, and the DOE and the governor will make their choice of school site within a few months, we request that you expedite this project, since you have administrative responsibility for the Department of Water Supply. We will be contacting you in a few days to arrange to meet with you about this project.

Thank you for your attention to the needs of the subdivisions.

Sincerely,

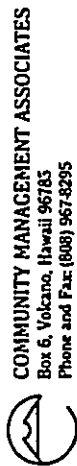
Peter Morton
Peter Morton

Brooks Maloof
Brooks Maloof

cc. George Aita, Group 70, 924 Bethel Street, Honolulu, HI 96813
Harold S. Masumoto, Office of State Planning, P.O. Box 3540, Honolulu, HI 96811
Bonnie Goodell, Community Management Associates, Box 6, Volcano, HI 96785
Viki Doty, Hazard Mitigation Officer, FEMA, San Francisco, CA 94129
The Presidio, Building 105, San Francisco 94129
Robert Fox, Board of Education, University of Hawaii at Hilo

NO RESPONSE NECESSARY

AT THIS TIME.



COMMUNITY MANAGEMENT ASSOCIATES
Box 6, Volcano, Hawaii 96783
Phone and Fax: (808) 967-8295

AUGUST 26, 1993

George Aita
Group 70
924 Bethel Street
Honolulu, HI 96813

Dear George,

Community Management Associates needs answers to several questions regarding the site selection process for the new Keau Elementary School. We hope you can help us.

As you know, we have been working with some residents of Hawaiian Paradise Park who wish to see a site on Kaloi Drive selected. A question has arisen as to the status of Keau sites under consideration.

The memo recording the January meeting between DAGS/DOE and W. H. Shipman (copy attached) states that the new elementary school will be within W. H. Shipman's proposed subdivision. Are the sites offered by W. H. Shipman conditional on subdivision approval, as that memo seems to indicate? If so, given that the permitting process is described as taking at least another two years, why are the W. H. Shipman sites under consideration in the current site selection process?

If the sites proposed by Shipman are to be given unconditionally, may I please have copies of the documentation of that unconditional offer?

Thank you.

Aloha,

Bonnie Goodell
Bonnie Goodell

BG/bg

TEL:

AUG 26 93 9:42 AM 001 P.01

FROM DIST. SUPT. INFO ACTION

RECEIVED



93 FEB 8 P 1: 05

TELETYPE UNIT

DEPARTMENT OF EDUCATION

(P)1067.3

*cc: Veevee
M. G. Lam*

TO: Memo to Files

SUBJECT: Keau II Elementary School
Site Selection Study/EIS
Preliminary Discussions with W. H. Shipman, Ltd.

DATE: January 15, 1993 (Friday), 2:30 P.M.

PLACE: W. H. Shipman Ltd., conference room

ATTENDED BY: See attached Memo to Files dated January 15, 1993.

The following comments summarize discussions at the January 15, 1993 meeting on the subject topic:

1. The following decisions were made at this meeting:

- a. W. H. Shipman, Ltd. (Shipman) should submit a written proposal on potential school sites for the Keau II Elementary school and Keau High School to the Department of Education (DOE) for consideration.
- b. The Department of Accounting and General Services (DAGS) will expedite initiation of the required site selection/environmental impact statement (SS/EIS) project for Keau II Elementary School.
NOTE: DAGS and the SS/EIS consultant will work with Shipman during the EIS process.
- c. At some future date, DAGS/DOE/Department of Transportation (DOT) should meet with Shipman on coordination of work in the Keau area.
- d. Shipman will work directly with the Office of State Planning (OSP)/State Land Use Commission (LUC) and the County of Hawaii (County) on zoning or permit concerns.

Ltr. No. (P)1067.3

2. DAGS/DOZ scheduled this meeting with Shipman for the following reasons:

- a. To determine preliminary plans for the proposed Shipman subdivision development (commercial and residential) in the Keauhou area.
- b. To discuss potential sites for the Keauhou II Elementary School and Keauhou High School within the proposed Shipman subdivision development.

3. Shipman provided the following status on projects in the Keauhou area:

- a. DOT is planning for construction of a Puna bypass road. The following comments are also provided on this matter:
 - (1) The DOT Puna bypass road is expected to help alleviate traffic congestion on the existing Keauhou-Pahoa Road.
 - (2) It is estimated it will take about six (6) years to complete the Puna bypass road project.
 - (3) Inata and Associates is the DOT consultant for the Puna bypass road project.
- b. Shipman is currently working on a land use plan that will incorporate an initial change in classification for about 650 acres immediately surrounding Keauhou Village from "agricultural" to "urban". The following comments are also provided on this matter:
 - (1) Shipman hopes to secure reclassification for the initial acreage as part of an ongoing five-year boundary review process. It is noted that:
 - (a) The Office of State Planning (OSP) has agreed to initiate a request on this matter sometime in March or April 1993 for State Land Use Commission (LUC) consideration.

Memo to Files
Page 3

Ltr. No. (P)1067.3

(b) The reclassification request is expected to take at least one (1) year to process.

(2) Shipman plans to request County zoning for the above "urban" parcels as soon as reclassification is granted by LUC. It is noted that:

- (a) Concurrent with the zoning request, Shipman will process a subdivision petition which (when approved) will include a planned bypass roadway between the existing Keauhou-Pahoa Road and the Volcano Highway.
 - (b) This planned Shipman roadway will serve the function of a temporary Keauhou bypass road but will be independent of the planned DOT Puna bypass road.
 - (c) This planned Shipman roadway will be built in accordance with County standards and dedicated to the County upon completion.
 - (d) Shipman will also be working on locating a sewage treatment plant (STP) for the proposed subdivision and getting the necessary approvals for its construction.
 - (e) Shipman is willing to dedicate the STP to the County upon completion if the County concurs.
- (3) At this time, Shipman does not intend to process an EIS as it is not necessary.
- (4) W. L. Moore Planning is coordinating the Shipman planning efforts with governmental agencies.
- (5) Okahara and Associates is doing the design engineering for all the Shipman projects.



Memo to Files
Page 4

Ltr. No. (P)1067.3

Memo to Files
Page 5

Ltr. No. (P)1067.3

(6) The time frame for County approvals is anticipated to be:

- (a) At least one (1) year after LUC approval for County zoning approval.
- (b) About nine (9) months after County zoning approval for County subdivision approval.
- (c) About nine (9) months after County subdivision approval for County approval of construction plans.

4. The following determinations also resulted from this meeting:

- a. DOE plans to request for Keanu II Elementary School construction funding in FY 1995-1997.
- b. Shipman suggested the DOE consider the following sites for Keanu II Elementary School:
 - (1) TMK 1-6-3:08 (along Keanu-Pahoa Road; on the Mountain View side of the road);
 - (a) The terrain is said to be "flat."
 - (b) Development of this site can be done independent of the DOT Puna bypass or the Shipman bypass road projects.
 - (c) However, traffic congestion problems will persist until either the DOT or Shipman road projects are completed.
 - (2) TMK 1-6-3:11 (along the Shipman temporary bypass road):
 - (a) The terrain is said to be "flat."
 - (b) Development of this site is dependent on completion of the Shipman bypass road, because it also includes sewer, water, power, telephone and drainage infrastructure needed by the school.

(c) However, Shipman cannot commit to a completion date for the temporary bypass road at this time.

c. Shipman also suggested the DOE consider the following sites for a future Keanu High School:

- (1) TMK 1-6-3:12 (Mauna of Volcano Road).
- (2) TMK 1-6-3:03 (along Keanu-Pahoa Road; on the Hill side of the road).

NOTE: DOE indicated the Keanu II Elementary School (K-5) needed to be constructed before the high school.

Prepared by:

Ralph Morita
RALPH MORITA Date

RM:jk
cc: Mr. Lester Chuck, DOE Facilities Branch w/attachment
Mr. Alan Garson, DOE Hawaii District w/attachment
Mr. Bob Cooper, W. H. Shipman, Ltd. w/attachment

TEL: Aug 26, 93 9:49 AM 002 P. 01

MEMORANDUM TO FILES

SUBJECT: Keaau II Elementary School, SS/EIS

FROM: Rayfi Morita, DAGS Planning (586-086)

MEETING DATE: 1/5/93 (Fri) PLACE: W.H. Shipman Ltd Conference Room

ATTENDED BY: (see below)

Ryef Morita (DAGS)

Lester Chuck, Herb Natanabe (DOE)

Bob Coopes W.H. Shipman Ltd

Tom English

Bill Morita URMA Planning

Fred J. Koehlsch W.H. SHIPMAN LTD ⁹⁶⁻¹³²⁵ ₉₆₋₁₃₂₇ (H)

Ry S. Blackstar " " "

Ann Goodell Dept of Ed.

Please attach to letter
 No. (P) 10673 (mailed
 8/1/93.



OCT 19 1993

ROBERT P. TANUSHI
 COMPTROLLER
 LLOYD LINEASAM
 DEPUTY COMPTROLLER

LETTER NO (P) 1732.3

STATE OF HAWAII
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P. O. BOX 110, HONOLULU, HAWAII 96810

OCT 14 1993

Ms. Bonnie Goodell
 Community Management Associates
 Box 6
 Volcano, Hawaii 96785

Dear Ms. Goodell:

Subject: Keaau II Elementary School
 Site Selection and EIS

Thank you for your August 26, 1993 comments for the subject project. Our responses to your comments are as follows:

1. The purpose of the January 15, 1993 meeting between the Department of Accounting and General Services (DAGS), Department of Education (DOE) and W. H. Shipman Company was to obtain information for the site selection study. No commitments were made regarding the site for the elementary school. The other peripheral issues such as land approvals, subdivision plans and the by-pass road were discussed to get a clearer understanding of the development in the area. It was not a negotiating session. It was similar in content and context to other meetings that DAGS/DOE have had with other landowners in the area.
2. The questions about subdivision approval are understood. The offers that have been discussed are not conditional on subdivision approval. Also, the lack of subdivision approval does not inhibit the development of a school on the sites that have been suggested. The same question could be raised about the Paradise Park sites as well since they are also larger than DOE requirements. The same response would apply to these sites as well.



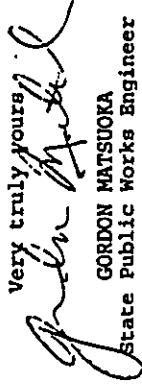
Ms. Bonnie Goodell
Page 2

Ltr. No. (P)1732.3

3. Concerning the written commitment by W. H. Shipman Company on the potential school sites, no written proposal has been submitted for consideration by the DOE.

We appreciate your input for this project. If there are any questions regarding this project, please call Mr. Allen Yamanoha of the Planning Branch at 586-0483.

Very truly yours,


GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. Paul Kiyabu
Mr. George Atta

Write



OFFICE OF STATE PLANNING

Office of the Governor

MAILING ADDRESS: P.O. BOX 2340, HONOLULU, HAWAII 96824
TELEPHONE: (808) 547-7000, 807-7000

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 08-11-2009 BY 60322 UCBAW/STP/STP

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Ref. No. C-337

November 3, 1993

MEMORANDUM

TO: Mr. Ralph Morita
Department of Accounting and General Services

SUBJECT: Review of Environmental Impact Statement Preparation Notice for
Keaau Elementary School II

We have reviewed the referenced document and have the following comments:

Although the project site is not within the Special Management Area within the coastal zone management area, and thus the State's Coastal Zone Management (CZM) law, Chapter 205A, Hawaii Revised Statutes, is applicable. With the recent passage of Act 91 in 1993, the coastal zone management area now includes all land areas, as well as all marine waters extending to the limit of the State's police power and management authority. State forest reserve lands were excluded until recently. Chapter 205A was also amended to add two additional sets of objectives and policies. There are now nine objectives and their supporting policies that should be addressed by the project: recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, and beach protection. Please refer to the actual legislation in preparing your draft environmental impact statement.

At this time we do not have any specific comments on the proposal in its general outline.

We appreciate very much the opportunity to review the proposal. If you have any questions, please contact Terry Hildebrand at 587-2881.

Harold S. Masumoto
Harold S. Masumoto
Director

STATE OF HAWAII
OFFICE OF STATE PLANNING
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DEC 10 1993



GROUP 70
STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 118, HONOLULU, HAWAII 96819

JOHN WARD
DIRECTOR

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UEBASAMI
DEPUTY COMPTROLLER
LETTER NO. (P) 1858.3

DEC 8 1993

Mr. Harold Masumoto
Director
Office of State Planning
State of Hawaii
Honolulu, Hawaii

Dear Mr. Masumoto:

Subject: Keaau II Elementary School
Site Selection and EIS
Consultation Phase

Thank you for your November 3, 1993 information regarding the subject project being located within the coastal management area and thus, subject to the State's Coastal Zone Management (CZM) law, Chapter 205A, Hawaii Revised Statutes. The draft EIS will address the impact of the CZM law and all nine of its objectives and policies. The changes adopted with Act 91 in 1993 will also be reviewed and relevant areas incorporated into the draft EIS.

We appreciate your input for this project.

Very truly yours,
Gordon Matsudoka
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Group 70 International

RECEIVED
DEC 10 1993



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII
 25 AUPUNI STREET • HILO, HAWAII 96720
 TELEPHONE (808) 969-1421 • FAX (808) 969-6976

November 5, 1993

Mr. Ralph Morita
 State of Hawaii
 Department of Accounting and General Services
 1151 Punchbowl Street, Room 430
 Honolulu, HI 96813

FOR KEAAU II ELEMENTARY SCHOOL SITE SELECTIONS

TAX MAP KEY 1-7-3:17; 1-5-39:267; 1-6-03:8; 1-6-03:11; 1-6-03:3

We have reviewed the subject Environmental Impact Statement Preparation Notice (EISP) for the proposed Keauu Elementary School sites and have the following comments and requirements:

1. Site No. 1 - Tax Map Key 1-7-3:17 - no existing service. Water can be made available with offsite improvements. The offsite improvements include a 300,000-gallon concrete reservoir and a 12-inch waterline to meet fire-flow requirements.
2. Site No. 2 - Tax Map Key 1-5-39:267 - no existing service. Water can be made available from an existing 12-inch waterline along the Keauu-Pahoehoa Road with offsite improvements. The offsite improvements include a 300,000-gallon concrete reservoir and a 12-inch waterline to meet fire-flow requirements.
3. Site No. 3 - Tax Map Key 1-5-47:206 - no existing service. Water can be made available from an existing 12-inch waterline along the Keauu-Pahoehoa Road with offsite improvements. The offsite improvements include a 300,000-gallon concrete reservoir and a 12-inch waterline to meet fire-flow requirements.
4. Site No. 4 - Tax Map Key 1-6-3:8 - the property is serviced by an existing 5/8-inch meter. Additional water can be made available from an existing 12-inch waterline along the Keauu-Pahoehoa Road fronting the property.
5. Site No. 5 - Tax Map Key 1-6-3:11 - no existing service. Water can be made available from an existing 16-inch waterline along the Volcano Highway fronting the property.
6. Site No. 6 - Tax Map Key 1-6-3:3 - no existing service. Water can be made available from an existing 12-inch waterline along the Keauu-Pahoehoa Road fronting the property.

Should you have any questions, please contact our Water Resources and Planning Section.

William Sewake
 H. William Sewake
 Manager

WA

... Water brings progress...

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SEARCHED	SERIALIZED	INDEXED	FILED	APR 11 1993	MA

Ralph
 AY

RECEIVED
 DEC - 9 1993



STATE OF HAWAII
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
 P. O. BOX 111, HONOLULU, HAWAII 96818

GROUP 70

DEC 7 1993

JOHN WAIHEE
 GOVERNOR

ROBERT P. TAKUSH
 COMPTROLLER
 LLOYD UNEBASAMI
 DEPUTY COMPTROLLER
 LETTER NO. (P) 1851.3

Mr. H. William Sewake
 Manager
 Department of Water Supply
 County of Hawaii
 25 Aupuni Street
 Hilo, Hawaii 96720

Dear Mr. Sewake:

Subject: Keauu II Elementary School
 Site Selection and EIS
 Consultation Phase

Thank you for your November 5, 1993 information and comments on the subject project. The details of the existing water service status and fire flow requirements are noted and will be considered in the draft EIS.

We appreciate very much your input for this project.

Very truly yours,

Gordon Matsuoaka
 GORDON MATSUOKA
 State Public Works Engineer

AY:jk
 cc: Group 70 International

Ralph

AMFAC/JMB HAWAII, INC.
770 Bishop Street
P.O. Box 3230
Honolulu, Hawaii 96801
808-945-8111
FAX: 808-945-8153

Amfac



ROBERT P. TAKUSHI
COMPTROLLER
LLOYD UMEBASAMI
DEPUTY COMPTROLLER
LETTER NO. (P) 1852.3

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 114, HONOLULU, HAWAII 96818

JOHN WAHREE
GOVERNOR

DEC 7 1993

November 9, 1993

Department of Accounting and
General Services
1151 Punchbowl Street, Room 430
Honolulu, HI 96813

Attn: Mr. Ralph Morita

RE: Keaau II Elementary School - Environmental
Impact Statement Preparation Notice

Dear Mr. Morita:

This is in response to the Keaau II Elementary School
Environmental Impact Statement Preparation Notice (EISPN) dated
October 25, 1993 prepared by Group 70 International, Inc.

We have no comment on the EISPN at this time. However, we
would like to inform you that Tax Map Key (3) 1-7-003:017,
identified as Candidate Site #1 in the EISPN, is currently being
listed for sale.

We appreciate the opportunity to submit our comments.

Very truly yours,

Ann Lo-Shimazu
Ann Lo-Shimazu
Manager, Land Administration

ALS:rmg

Ms. Ann Lo-Shimazu
Manager
Land Administration
AMFAC/JMB Hawaii, Inc.
P. O. BOX 3230
Honolulu, Hawaii 96801

Dear Ms. Lo-Shimazu:

Subject: Keaau II Elementary School
Site Selection and EIS
Consultation Phase

Thank you for your November 9, 1993 comment on the subject
EISPN. Although the parcel, TMK 3rd Division 1-7-003:017, is
for sale, it is not excluded from consideration.

We appreciate your input for this project.

Very truly yours,

Gordon Matsuoka
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Group 70 International

OFFICE OF PUBLIC WORKS
DIVISION OF PUBLIC WORKS
1151 PUNCHBOWL STREET
HONOLULU, HAWAII 96813
TELEPHONE: 808-521-2200
FAX: 808-521-2201
WWW: www.hawaii.gov/pw

1151 PUNCHBOWL STREET
HONOLULU, HAWAII 96813
TELEPHONE: 808-521-2200
FAX: 808-521-2201
WWW: www.hawaii.gov/pw



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

READY TO
ATTENTION OF

November 26, 1993 12 5. PM '93
DIV. OF PUBLIC WORKS
DAGS



Morita

JOHN WAIHEE
GOVERNOR

DEC 23 1993



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 115, HONOLULU, HAWAII 96819

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UNERASAMI
DEPUTY COMPTROLLER

LETTER NO. (P) 1895.3

Mr. Ralph Morita
Department of Accounting and General Services
1151 Punchbowl Street, Room 430
Honolulu, Hawaii 96813-4398

Dear Mr. Morita:

Thank you for the opportunity to review and comment on the Environmental Impact Statement Preparation Notice for the Proposed Keaau II Elementary School, Puna, Hawaii. The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act; the Rivers and Harbors Act of 1899; and the Marine Protection, Research and Sanctuaries Act.

- a. The project does not involve work in waters of the U.S.; therefore, a DA permit will not be required.
- b. The flood hazard information provided on page 3-2 is correct.

Sincerely,

Ralph Morita
Ralph Morita
Director of Engineering

Mr. Kisuk Cheung
Director of Engineering
U. S. Army Engineering District, Honolulu
Department of the Army
Fort Shafter, Hawaii 96858-5440

Dear Mr. Cheung:

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your November 26, 1993 comments regarding the subject project. Our responses to your comments are as follows:

1. We acknowledge that a Department of the Army permit is not required for any of the six sites.
2. Your comment confirming the accuracy of the flood hazard information is appreciated.

We appreciate your input for this project.

Gordon Matsuo
Very truly yours,
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta, Group 70 International

DIVISION OF PUBLIC WORKS	
INITIAL (CC) YEAR	
1. State P.W. Eng. Approval	_____
P.W. Secy	_____
Staff Secy, Br	_____
2. Planning Br.	_____
Prof. Mgmt. Br.	_____
Design Br.	_____
Inspection Br.	_____
Dist. Coord. Eng.	_____
Training Secy, Br.	_____

Morita

Donna Fay K. Kipouaki
Chief Engineer
Riley W. Smith
Deputy Chief Engineer

RECEIVED:
Dec 6 1 02 PM '93
DIV. OF PUBLIC WORKS



County of Hawaii
DEPARTMENT OF PUBLIC WORKS
35 Aiea Blvd., Room 202 - Hialeah, Hawaii 96720-0332
(808) 941-4331 • Fax: (808) 945-1134

Stephen K. Yamashiro
Mayor

November 30, 1993

MR RALPH MORITA
DEPARTMENT OF ACCOUNTING & GENERAL SERVICES
1151 PUNCHBOWL STREET ROOM 430
HONOLULU HI 96813

SUBJECT: KEAAU II ELEMENTARY SCHOOL - SITE SELECTION STUDY
AND EIS PREPARATION NOTICE

We have reviewed the subject document and have no comments at this time.

Galen M. Kuba
GALEN M. KUBA, Acting Division Chief
Engineering Division

STT:byf

cc: Planning Department
ENG

NO RESPONSE NECESSARY
AT THIS TIME.

DIVISION OF PUBLIC WORKS	
OFFICE OF THE CHIEF ENGINEER	
1 - Site P.W. Eng	Approval
- P.W. Secy	Sign
Staff Serv. Br	File
Planning Div.	File
- Proj. Mgmt. Br	See me
- Design Br	Comments
- Insp. Br	Inspect
- Qual. Cont. Eng	Rel
- Envt. Serv. Br.	



JOHN H. SMITH
COMMISSIONER OF LAND AND NATURAL RESOURCES

RECEIVED
DEC - 1 1993



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 511
HONOLULU, HAWAII 96809

Keith W. Ahue, Chairperson
Board of Land and Natural Resources

John P. Keppeler, II
Dona L. Hanaika

AGRICULTURE
CIVIL ENGINEERING
CONSERVATION AND RECREATION
COUNCIL ON ENVIRONMENTAL QUALITY
ENVIRONMENTAL PLANNING AND DESIGN
GENERAL INVESTIGATIONS
HISTORIC PRESERVATION
LAND MANAGEMENT
PLANNING
PUBLIC UTILITIES
REGULATORY AFFAIRS
WATER RESOURCES
WILDLIFE AND BIRDS
ZONING

GROUP 70
REF:OCEA:KCK

File No.: 94-292
DOC. NO.: 3808

NOV 30 1993

**NO RESPONSE NECESSARY
AT THIS TIME.**

PRIORITY

TO: The Honorable Robert P. Takushi, Comptroller
Department of Accounting and General Services

ATTN: Ralph Morita, Engineer
Department of Accounting and General Services

FROM: Keith W. Ahue, Chairperson
Board of Land and Natural Resources

SUBJECT: Environmental Impact Statement Preparation Notice (EISIN):
Kesau II Elementary School, Puna, Hawaii, TMK: Various

We have reviewed the EISIN information for the proposed school project transmitted by Mr. George Atta's letter dated October 25, 1993, and have no comments to offer at this time.

We will forward our Historic Preservation Division comments as they become available.

Thank you for the opportunity to comment on this matter.

Please feel free to call Steve Tegawa at our Office of Conservation and Environmental Affairs, at 587-0377, should you have any questions.

cc: George Atta, Group 70, Intl.

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UKEBASAMI
DEPUTY COMPTROLLER
(P) 1000.4



RECEIVED
JAN 10 1994

JOHN WASEE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96848
LETTER NO. (P) 1000.4

JAN 6 1994

Honorable John Lewin
Director
Department of Health
State of Hawaii
Honolulu, Hawaii

Dear Dr. Lewin:

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your December 14, 1993 comments on the subject project. Our responses to your comments are as follows:

1. The selected school site will be a minimum of eight (8) acres and therefore, should meet the one-acre lot exception to the critical wastewater disposal area designation.
2. Once the school site is selected and the project enters the design phase, it will include the development of an individual system that includes septic tanks and subsurface leech fields as recommended by your department.
3. All wastewater plans will conform to the applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems."

We appreciate your input for this project.

Very truly yours,

Robert P. Takushi
ROBERT P. TAKUSHI
State Comptroller

Morita

JOHN C. LEWIN, M.D.
DIRECTOR OF HEALTH



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DEC 16 8 32 AM '93

DIV. OF PUBLIC WORKS
DAGS

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3318
HONOLULU, HAWAII 96813

IN REPLY, PLEASE REFER TO:
93-308 EPO

December 14, 1993

Mr. Ralph Morita
Department of Accounting and
General Services
1151 Punchbowl Street, Room 430
Honolulu, Hawaii 96813

Dear Mr. Morita:

Subject: Site Selection Study and Environmental Impact
Statement Preparation Notice
Keaau II Elementary School
Puna District, Island of Hawaii
DAGS Job No. 11-16-6084
THKS: Site 1 = 1-7-03: 017
Site 2 = 1-5-39: 267
Site 3 = 1-5-47: 206
Site 4 = 1-6-03: 008
Site 5 = 1-6-03: 011
Site 6 = 1-6-03: 003

Wastewater

The Department of Education (DOE) is proposing to build a new Keaau II Elementary School to serve grades K-5 in the Puna District on the Island of Hawaii. The six candidate sites are located in a critical wastewater disposal area with one acre lot exception as determined by the Hawaii County Wastewater Advisory Committee.

As there is no existing sewer service system in the area of each possible site and cesspools are not allowed for public buildings such as school buildings, the Department of Health (DOH) recommends the use of treatment individual wastewater systems to be constructed on-site.

All wastewater plans must conform to applicable provisions of the DOH's Administrative Rules, Chapter 11-62, "Wastewater Systems" and we reserve the right to review these plans.

Should you have any questions, please contact Ms. Lori Kajiwara of the Wastewater Branch at 586-4290.

Very truly yours,

John C. Lewin
JOHN C. LEWIN, M.D.
Director of Health

cc: Wastewater Br.
JCL:AB:isy

2-22 PM Eng	Approved
2-22 PM Sec	Site
2-22 PM Dir	Info
2-22 PM Br	File
2-22 PM Br	File
2-22 PM Br	File
2-22 PM Br	File
2-22 PM Br	File
2-22 PM Br	File
2-22 PM Br	File



JOHN WAIKAE
GOVERNOR

DEC 23 1993
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
800 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5087



NEED JOHNSON
DIRECTOR
DEPUTY DIRECTORS
KANAKA HOLT
JOYCE T. OAHNE
AL PANG
CALVIN M. TSUDA
IN REPLY REFER TO
STP 8.3665



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P O BOX 111, HONOLULU, HAWAII 96819

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UHEBASAMI
DEPUTY COMPTROLLER
LETTER NO. (P)1069.4

FEB 16 1994

Honorable Rex Johnson
Director
Department of Transportation
State of Hawaii
Honolulu, Hawaii

Dear Mr. Johnson:

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your December 20, 1993 comments regarding the subject project. Our responses to your comments are as follows:

1. We have reviewed our site locations in relation to the proposed highway alignments. While the Bypass Alternative 2 alignment might have affected Sites 4 (D) and 5 (E), it is our understanding from discussions with Imata and Associates, your roadway consultant, that this alternative is not the preferred alignment and is likely to be dropped. Bypass Alternative 1 may have an impact on Site 6 (F), but this depends on the precise alignment of this alternative. Using the most current alignment map, a preliminary assessment indicates that there will be sufficient buffer (500 feet) between the school and the road. This needs to be verified at a later time when the roadway alignment is fixed.
2. We concur with the need to do a traffic assessment and appropriate mitigation measures when the final site is selected. At this preliminary stage, we will identify some basic mitigation strategies for each site. We will conduct a more detailed traffic study in the next phase of the project after the final site is selected.

TO: Mr. Ralph Morita
Department of Accounting and General Services

FROM: Rex D. Johnson
Director of Transportation
Rex D. Johnson

SUBJECT: Environmental Impact Statement Preparation Notice (EISP) - Site Selection
Study for the Proposed Keaau II Elementary School
TMK: 1-5-39: 267, 1-5-47: 206, 1-6-03: 03, 08, & 11, 1-7-03: 17

We have the following comments on the proposed Keaau II Elementary School Site Selection Study and EISP:

1. We find that sites 4, 5, and 6 (in the vicinity of Keaau Town) may have an impact on our proposed Keaau Bypass Road. We are currently evaluating two alternative roadway alignments (see attached map) and both are in proximity to one or more of the potential school sites. The site selection process should take into account the proposed bypass road alignments.
2. The draft environmental impact statement on the selected site should contain a Traffic Assessment Report which identifies measures to mitigate any adverse traffic impacts.

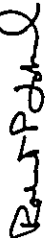
Thank you for the opportunity to provide comments.

Enc.

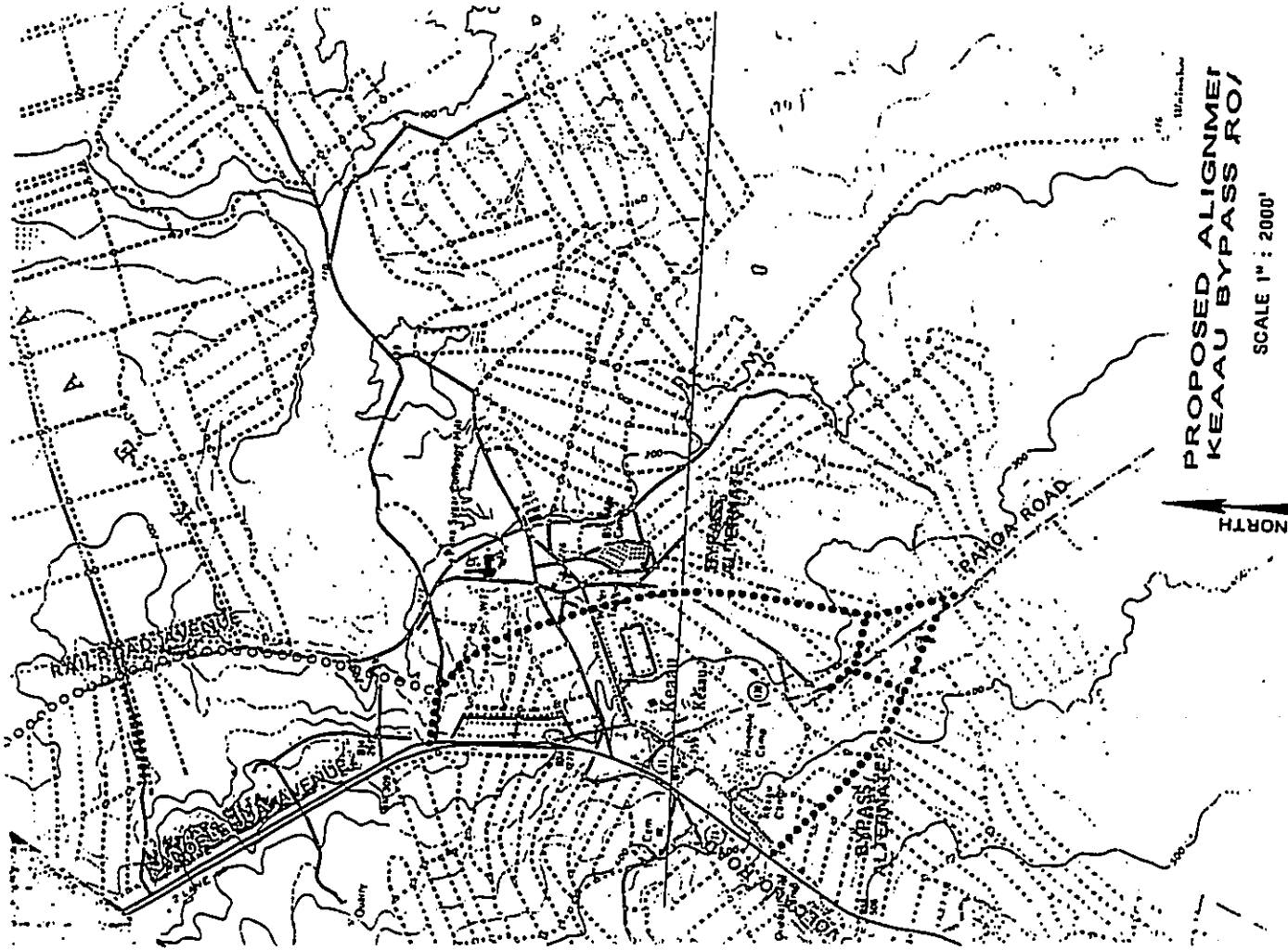
c: Mr. George Atta, Group 70 International, Inc.

We appreciate your input for this project.

Very truly yours,



ROBERT P. TAKUSHI
State Comptroller





Stephen K. Yamashiro
Mayor

RECEIVED
Plame S. Quikquit
Director

Dec 22 3 23 PM '93
DIV. OF PUBLIC WORKS
DAGS

County of Hawaii
DEPARTMENT OF RESEARCH AND DEVELOPMENT
25 Aupuni Street, Room 219 • Hilo, Hawaii 96720-4252 • (808) 941-9266 • Fax: (808) 941-1285
KONA: (808) 337-5226 • Fax: (808) 336-5443
December 21, 1993

RECEIVED
JAN 26 1994



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96841

JOHN WAHNEE
COMPTROLLER

ROBERT P. TAKUSHI
COMPTROLLER

LLOYD I. UKEBASAMI
DEPUTY COMPTROLLER

LETTER NO. (P) 1041-4

MEMORANDUM

JAN 24 1994

To: Mr. Ralph Morita
From: Raymond Carr, Economic Development Specialist
Subject: EIS Preparation Notice for Keaau II Elementary School

Mr. Raymond Carr
Economic Development Specialist
Department of Research and Development
25 Aupuni Street, Room 219
Hilo, Hawaii 96720-4252

I regret that these comments on the referenced topic are being sent to you later than your indicated deadline of December 8, but hope that they can still be of use.

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your December 21, 1993 comments on the subject project. Our responses to your comments are as follows:

Page 3-3, Item 3.11 ROADS:

The inference is made that Highway 11 carries heavy traffic because it is the route to the Volcanoes National Park, a popular tourist destination. It is my personal experience that this highway (mauka of the intersection at Keaau) has a lower traffic density than Highway 130, especially during peak traffic hours. Historically, traffic congestion on Highway 130 has been severe and will be the one of the dominant concerns in siting the school. In this regard, the Preparation Notice gives the impression of having been prepared by an agency from outside the County that has not yet made a preliminary review of the real traffic concerns in this area. It is recommended that this aspect be given high priority, with assessments being based on actual traffic density measurements.

1. The draft EIS, which discusses roads and traffic in the school service area, will address the traffic issues in greater detail. If necessary, a more detailed traffic study may be conducted during the master plan and design phases of the project.

2. The Hawaii Model Energy Code will be addressed during the design phase of the project. The State will comply with all applicable federal, state, and local codes.

We appreciate your input for this project.

Very truly yours,
GORDON MATSUOKA
State Public Works Engineer

DIVISION OF PUBLIC WORKS
BY INITIALS
State P.W. Eng. Approval
P.W. Secy
Staff Secy. B
Planning Br.
Proj. Mgmt. Br.
Design B
Insp. Br.
Eval. Cost. Eng.
Licensing Surv. Br.

AY:Jy
cc: Mr. George Atta

SEN BY:ANNEK : 1-18-84 10:45AM : GROUP 10 L.M.TED* 005580402:0 3/ 3

Page 3-6, Item 3.22, LONG-TERM IMPACTS:

As indicated in the text, the proposed school will result in increased demand on the electrical utility system. It is expected that by the time this facility is designed, the Hawaii Model Energy Code will be incorporated into the Hawaii County Building Code. Even if this is not achieved, it is recommended that the State apply these energy standards to the design. This will diminish the impact of the school on the utility system and will reduce energy usage and operating costs for the school many years into the future. Please contact me if you need further information on the Hawaii Model Energy Code.

xc: Diane Quitiquit, Director



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JAN - 4 1994
COMPTROLLER'S OFFICE
STATE OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HONOLULU, HAWAII 96809

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JAN 5 8 07 AM '94
DIV. OF PUBLIC AFFAIRS

DEPARTMENT OF LAND AND NATURAL RESOURCES
SPECIAL SERVICES
COMMUNITY RELATIONS
PLANNING AND DEVELOPMENT
POLICY AND RESEARCH
ADMINISTRATIVE SERVICES
CONSERVATION AND RESTORATION
COMPLIANCE
REGULATORY AFFAIRS
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UHEBASAMI
DEPUTY COMPTROLLER



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96818

JOHN WARREN
GOVERNOR

FEB 16 1994

LETTER NO. (P) 1071.4

JAN 4 1994

MEMORANDUM

TO: The Honorable Robert P. Takushi, Comptroller
Department of Accounting and General Services

ATTN: Ralph Morita, Engineer
Department of Accounting and General Services

FROM: Keith W. Ahue, Chairperson
Board of Land and Natural Resources

SUBJECT: Environmental Impact Statement Preparation Notice (EISPN):
Keaau II Elementary School, Puna, Hawaii, TMK: various

1 - Mr. Takushi
1 - Mr. Morita
1 - Mr. Ahue
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]

File No.: 94-292a
DOC. NO.: 3808

Honorable Keith Ahue
Chairperson
Department of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Mr. Ahue:

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your January 4, 1994 comments on the subject project. Our responses to your comments are as follows:

The following are our additional comments for the subject project which supplement our previous letter dated November 30, 1993:

Historic Preservation Division:

The Historic Preservation Division (HPD) comments for TMKs: 1-7-03: 17 and 1-6-03: 3, 8, and 11: These parcels are old sugarcane crop lands and it is very unlikely that significant historic sites would still remain in these parcels. Hence, construction of a school in any of these four parcels will have "no effect" on significant historic sites.

For TMKs: 1-5-39: 267 and 1-5-47: 206: These two parcels are located in the Hawaiian Paradise Park subdivision. The substrate in these areas is pahoehoe with an open ohia forest ground cover. Portions of the flow have been surveyed in the past, with few significant sites identified on the surface. However, the pahoehoe flow can conceal numerous lava tube systems which may contain human burials and other significant historic sites such as enclosures, terraces, and habitation features. Hence, these two parcels should undergo an archaeological inventory survey to determine presence/absence of significant historic sites. The findings of the survey should be submitted in report format to HPD for adequacy review and comment.

1. We appreciate your comments regarding sites TMK 1-7-03:17 and 1-6-03:3, 8, and 11. We will incorporate your assessment in the final EIS.

2. TMKs 1-5-39:267 and 1-5-47:206 are located in the Hawaiian Paradise Park subdivision. We recognize the possibility of undeveloped lava fields containing lava tubes that may contain human burials and other historic sites that may be of significant cultural or historic value. While no such features were observed in our preliminary reconnaissance, we concur with the need to do further studies. An archaeological inventory survey will be conducted should one of the sites be selected. The findings of the survey will be submitted in report format to the Historic Preservation Division (HPD) for review and approval.

IF significant historic sites are present, then a mitigation plan covering data recovery and/or in place preservation will be submitted to HPD for review and concurrence. Should Hawaiian burial remnants be present, then a mitigation plan for the burials will be submitted for approval by the Hawaii Island Burial Council.

Honorable Keith Ahue
Page 2

Ltr. No. (P)1071.4

We appreciate your input for this project.

Very truly yours,

R. P. Takushi

ROBERT P. TAKUSHI
State Comptroller



JOHN WAIKANE
COMPTROLLER



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JAN 16 1994

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2260
HONOLULU, HAWAII 96810

GROUP 70

OFFICE OF BUSINESS SERVICES

CHARLES F. TOUGH
SUPERINTENDENT

JOHN WAIKANE
GOVERNOR



FEB 14 1994

GROUP 70

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 118, HONOLULU, HAWAII 96810

LETTER NO. (P) 1079.4

January 12, 1994

FEB 10 1994

MEMO TO: Mr. Stanley Shin, Branch Chief,
Planning Branch, DAGS

F R O M: Paul K. Kiyabu, Director
Facilities and Support Services Branch, OBS

SUBJECT: Draft Environmental Impact Statement and
Site Selection Study
New Keeaau II Elementary School

We have reviewed the subject draft and have the following comments to make:

- 1) On page 2-2 the project land requirement is 12-useable acres of land. The same correction should be made in Section 4.1.2. on page 4-3.
- 2) In Table 4 we understand that the bus subsidy costs will be included upon receipt of the information from the Department of Accounting and General Services (DAGS), Central Services and the total costs will be revised.
- 3) On page 5-12 under the section called "Land Ownership" there should be a description of the good criteria.

Since most of the comments are identical in the draft EIS preparation notice, please make the same or similar corrections in the draft EIS. We are pleased with the efforts of the consultant and would like the draft EIS to proceed as soon as possible.

Should there be any comments, please call the Facilities Branch at 737-4743.

PKK:LHTC:hy

cc: C. Toguchi, Supt.
A. Garson, HIDO
J. Overton, Group 70

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

Mr. Paul K. Kiyabu
Facilities Director
Facilities and Support Services Branch
Office of Business Services
Department of Education
State of Hawaii
Honolulu, Hawaii

Dear Mr. Kiyabu:

Subject: Keeaau II Elementary School
EIS Consultation Phase

Thank you for your January 12, 1994 comments regarding the subject project. Our responses to your comments are as follows:

1. We understand that the criteria reference is 12 useable acres. The appropriate clarification will be made for Page 2-2 and Section 4.1.2 on Page 4-3.
2. The bus subsidy information has been compiled and will be included in the final EIS.
3. Page 5-12 will include a description of what is considered "good" under the Land Ownership criteria.

We appreciate your input for this project.

Very truly yours,

John WaiKane
GORDON MATSUOKA
State Public Works Engineer

AY:jk

cc: Mr. George Atta, Group 70 International, Inc.

Morita

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FEB 16 11 05 AM '94

DIV. OF ACCOUNTING & GENERAL SERVICES

February 14, 1994

Mr. Ralph Morita
State of Hawaii
Department of Accounting and General Services
1151 Punchbowl street, room 430
Honolulu, Hawaii 96813

Subject: Keanu 2 Elementary School

Dear Mr. Morita,

Thank you for the copy of the Draft Environmental Impact Statement and Site Selection Study. It was both interesting and informative. Enclosed is a survey that was conducted by the Paradise Hui Honolulu. I thought you may find it informational.

Diana Radich
Diana Radich



ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UHEBASAMA
DEPUTY COMPTROLLER

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII
P. O. BOX 115, HONOLULU, HAWAII 96810

LETTER NO. (P) 1196-4

MAR 17 1994

MAR 21 1994

GROUP /0

Ms. Diana Radich
P. O. Box 2113
Keanu, Hawaii 96749

Dear Ms. Radich:

Subject: Keanu II Elementary School
EIS Consultation Phase

Thank you for your February 14, 1994 comments regarding the subject project. The survey results for Hawaiian Paradise Park is very interesting and the information will assist us in the preparation of the final EIS.

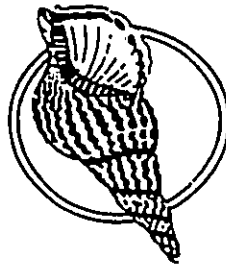
We appreciate your input for this project.

Very truly yours,

Gordon Matsuo
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta, Group 70 International, Inc.





The Hawaiian Conch

Paradise Hui Hanalei Publication

Office (808) 966-4500 FAX (808) 982-5417

ISSUE BY SERVING HAWAIIAN PARADISE PARK NUMBER 1993

WATER LINES:	65 people wanted water lines.	42 did not want water lines.
COUNTY ROADS:	64 people wanted county roads.	37 did not want county roads.
PARKS:	52 wanted parks within HIF.	45 did not want any parks.
FIRE STATION:	82 people wanted a fire station.	17 did not want a fire station.
POLICE STATION:	74 wanted a police station here.	32 did not want a police presence.
SCHOOLS:	42 wanted schools.	65 did not want any schools.
CHILD CARE:	23 people wanted child care.	81 did not want child care.
ELDER CARE:	29 wanted elder care.	74 did not want this care.
SHOPPING:	21 wanted shopping available.	81 did not want any shopping here.
CHURCHES:	15 wanted churches in the community.	89 did not want any churches here.
SMALL BUSINESS:	14 want some small businesses.	70 did not want any businesses.
HOSPITAL:	40 want a hospital or clinic.	55 did not want any hospital.
COUNTRY FEELING:	61 want to keep the country feeling.	26 did not want the country feeling.



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

Central Postal Facility 220 South King Street, 4th Floor, Honolulu, Hawaii 96813
 Mailing Address: P.O. Box 2159, Honolulu, Hawaii 96814 Telephone: (813) 544-2400 Fax: (813) 544-2317

JOHN WARE
Governor
LARRY HAWKINS
Deputy Governor
JEANNE E. SCHMIDT
Deputy Director
ERIC EGGETT
Deputy Director
LAKSHI YOSHIMIZU
Deputy Director

POSTAL SERVICE
OFFICE



**STATE OF HAWAII
LAND USE COMMISSION**

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
 Room 154, Old Federal Building
 335 Mifflin Street
 Honolulu, Hawaii 96813
 Telephone: 587-4121

LETHER UEDA
EXECUTIVE OFFICER

February 16, 1994

RECEIVED
FEB 23 1994

Mr. Brian J.J. Choy
 Director
 Office of Environmental Quality Control
 220 South King Street, Fourth Floor
 Honolulu, Hawaii 96813

GROUP 70

Dear Mr. Choy:

The Department of Business, Economic Development & Tourism is pleased to submit the enclosed comments on the Draft Environmental Impact Statement and Site Selection Study - Keanu II Elementary School.

The comments were provided by the Land Use Commission. Questions regarding these comments may be directed to Esther Ueda, LUC Executive Officer, at 587-3826.

Thank you for the opportunity to comment.

Sincerely,

Mufi Hannemann
 Mufi Hannemann

Enclosure
 cc: Mr. Ralph Morita ✓
 Mr. George Atta ✓

February 16, 1994

**SUBJECT: Director's Referral No. 94-049-M
 Draft Environmental Impact Statement and Site Selection Study - Keanu II Elementary School**

We have reviewed the subject Draft Environmental Impact Statement and Site Selection Study ("DEIS") and have the following comments to offer:

1) We confirm that the 6 candidate sites are within the following State Land Use Districts:

Candidate Site	District
A (TMK: 1-7-03: 17)	Agricultural
B (TMK: 1-5-39: 267)	Agricultural
C (TMK: 1-5-47: 206)	Agricultural
D (TMK: 1-6-03: 08)	Agricultural
E (TMK: 1-6-03: 11)	Agricultural
F (TMK: 1-6-03: 03)	Agricultural

2) We wish to note that Candidate Site A is not within the State Land Use Urban District as noted on pages 1-4, 4-8, 6-5, 8-1, and 12-1 of the DEIS. The parcel, identified as TMK: 1-7-03: 17, was reclassified from the Urban District to the Agricultural District pursuant to a Decision and Order issued on April 23, 1975 for LUC Docket H74-16.

We suggest that the appropriate corrections be made on the above listed pages.

3) Please be informed that Candidate Sites D, E, and F, as depicted in Figures 18, 20, and 22, respectively, are within an approximately 660 acre petition area under LUC Docket No. BR93-699/Office of State Planning, State of Hawaii.

Said docket is currently pending before the Commission.

Director's Referral 94:049-M
February 16, 1994
Page 2

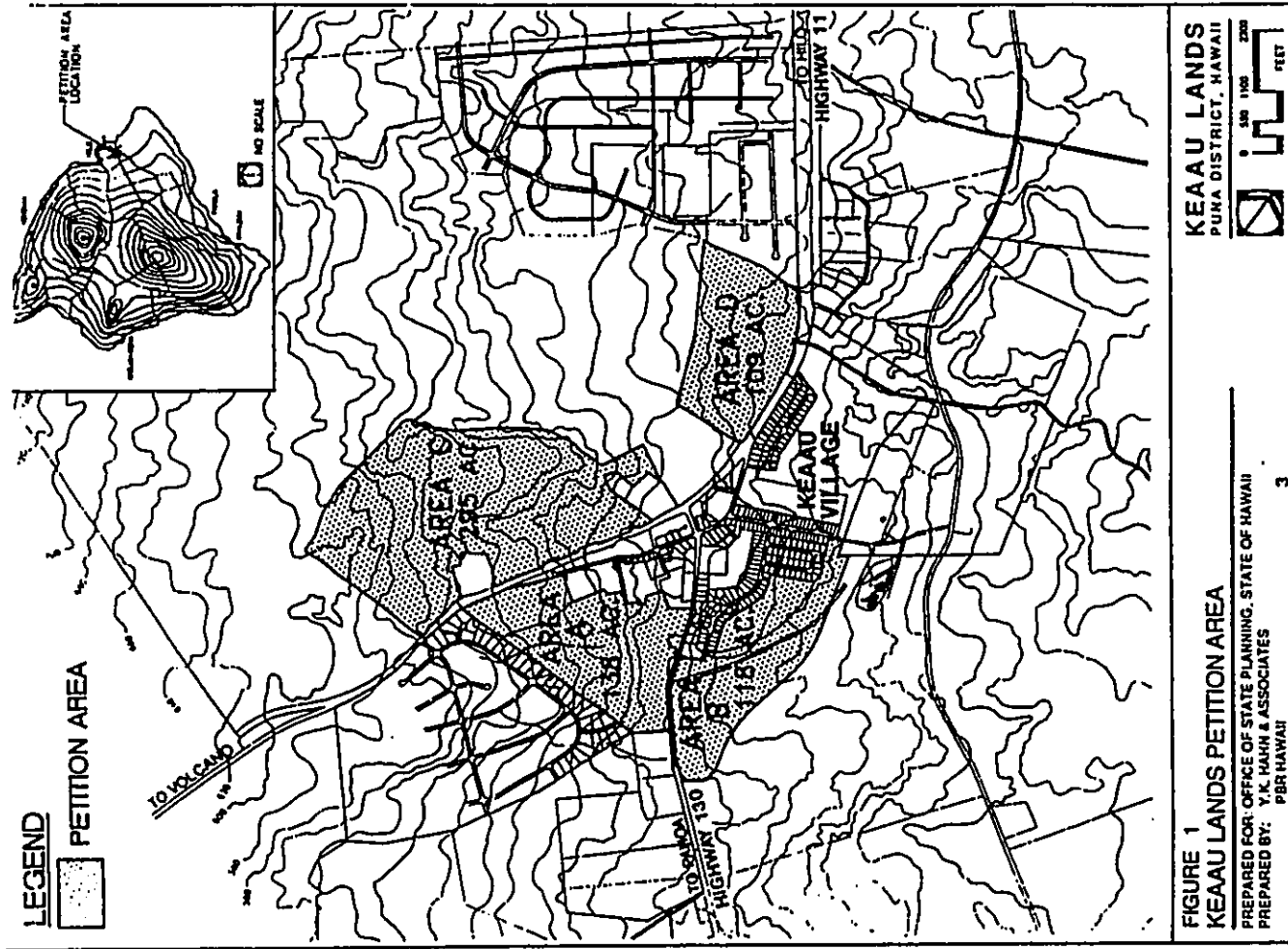
Please find attached a copy of the petition area as provided by the petitioner.

- 4) Although the exact type of development within the 660 acre petition area is not known at this time, it is our understanding that the proposed uses will include residential, commercial/industrial, and parks/open space areas, in line with the W.H. Shipman Conceptual Keaau Development Plan.

It is also our understanding that the petition area also includes lands to accommodate a new elementary school (minimum 12 acres) and a new high school (up to 50 acres) that are being reserved in the event the Department of Education decides that Keaau is the appropriate location for these facilities.

We have no further comments to offer at this time.

EU:LRA:th



JOHN WAIKAE
COMPTROLLER



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P O BOX 119, HONOLULU, HAWAII 96818

ROBERT P. TAKUSHI
COMPTROLLER
ILOUOLI UKEGASANI
DEPUTY COMPTROLLER

LETTER NO. (P) 1208.4

Honorable Mufi Hannemann
Page 2

Ltr. No. (P) 1208.4

MAR 22 1994

Honorable Mufi Hannemann
Director
Department of Business,
Economic Development, and Tourism
State of Hawaii
Honolulu, Hawaii

Dear Mr. Hannemann:

Subject: Keaau II Elementary School
EIS Consultation Phase

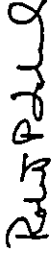
Thank you for your February 16, 1994 letter forwarding comments from the State Land Use Commission on the subject project. Our responses to the comments are as follows:

1. The comment confirming that the six candidate sites are within the State Land Use Agricultural District is appreciated.
2. Thank you for the information that Candidate Site A has been reclassified from Urban District to Agricultural District pursuant to a Decision and Order issued on April 23, 1975 for LUC Docket H74-16. Appropriate corrections will be made to the applicable pages in the EIS.
3. Thank you for the map of the petition area and information that Candidate Sites D, E, and F are within an approximately 660-acre petition area under LUC Docket No. BR93-699/Office of State Planning, State of Hawaii. We will include the information in the final EIS.
4. We have had discussions with the landowner and we are aware that the landowner has included several potential elementary and high school sites within their plans. We understand that the landowner informally offered to dedicate the school sites to the State but until these sites are dedicated in

writing, our EIS report will include land acquisition cost to these sites. We also understand that the sites identified by the landowner are part of large unsubdivided parcels and the exact location and configuration of the necessary 12 and 50 acres have not yet been finalized. We have made some assumptions about these sites and have assurances from the landowner that they are open about the specific location and configuration of these sites.

We appreciate your input for this project.

Very truly yours,


ROBERT P. TAKUSHI
State Comptroller



DEPARTMENT OF THE ARMY
U S ARMY ENGINEER DISTRICT, HONOLULU
FT SHAFTER, HAWAII 96813

ARMY TO
ATTENTION OF

February 16, 1994

Planning Division

Office of Environmental Quality Control
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813


Dear Sir/Madam:

Thank you for the opportunity to review and comment on the Environmental Impact Statement Preparation Notice for the Proposed Keau Ii Elementary School, Puna, Hawaii. We do not have any additional comments to offer beyond those provided in our letter dated November 26, 1993.

NO RESPONSE NECESSARY

AT THIS TIME.

Sincerely,


Thomas M. Ushijima, P.E.
Acting Director
of Engineering

Copies Furnished:

✓ Mr. George Atta
Group 70 International, Inc.
924 Bethel Street
Honolulu, Hawaii 96813

Mr. Ralph Morita
Department of Accounting and General Services
1151 Punchbowl Street, Room 430
Honolulu, Hawaii 96813-4398



DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

ENERGY DIVISION, 333 MERCURY ST., PM 110, HONOLULU, HAWAII 96813 PHONE: (808) 587-3800 FAX: (808) 587-3820

JOHN WAIHEE
Governor
MATAI HUKAHELANA
Director
ALANNE SCHULTZ
Deputy Director
ROCK LEGGOLD
Deputy Director
LAWRENCE YOUNG
Deputy Director

RECEIVED
FEB 25 1994

February 23, 1994

GROUP 70

The Honorable John Waihee
Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Governor Waihee:

Subject: Draft Environmental Impact Statement for
Keaau Ii Elementary School
Tax Map Key: 1-7-03:17, 1-5-39:267, 1-5-47:206,
1-6-03:08, 1-6-03:11, 1-6-03:03

We wish to inform you that we have no comments regarding
the subject Draft Environmental Impact Statement (DEIS).

Thank you for the opportunity to submit any comments or
recommendations.

Sincerely,

Haurice H. Kaya
Haurice H. Kaya
Energy Program Administrator

HHK:hke1s107

cc: DAGS-Mr. Ralph Morita
Group 70 International, Inc.-Mr. George Atta

NO RESPONSE NECESSARY

AT THIS TIME.





OFFICE OF STATE PLANNING

Office of the Governor
MAILING ADDRESS: P.O. BOX 1548 HONOLULU, HAWAII 96813-1548
STREET ADDRESS: 300 SOUTH HOTEL STREET, 6TH FLOOR
TELEPHONE: (808) 587-3841, 587-3800

FILED DIVISION 587-3841
PLANNING DIVISION 587-3800

RECEIVED

FEB 26 1994

Ref. No. C-520

GROUP 70

February 23, 1994

MEMORANDUM

TO: The Honorable Bruce Anderson, Interim Director
Office of Environmental Quality Control

SUBJECT: Draft EIS and Site Selection Study for Draft Environmental Impact
Statement and Site Selection Study for Keaau II Elementary School

Our only concern with the project is the unresolved issue regarding the method by which the proposed site for the elementary school would dispose of its waste water. Resolution of this concern is important for complying with Chapter 205A, the Coastal Zone Management (CZM) Law.

The design for waste water disposal must respect the CZM policy to "promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards." This is particularly important, given that the sewer infrastructure in the project area is limited and that seepage and ground contamination could occur in areas where land is porous.

Thank you for the opportunity to comment. If there are any questions, please contact our CZM office at 587-2876.

Harold S. Masumoto
Harold S. Masumoto
Director

cc: Mr. Ralph Morita, DAGS
Mr. George Alta, Group 70 International, Inc. ✓



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 115, HONOLULU, HAWAII 96818

JOHN WANSHEE
CONTROLLER

ROBERT P. TAKUSHI
COMPTROLLER
LLOYDI UNEBASAMI
DEPUTY COMPTROLLER

LETTER NO. (P) 1200.4

MAR 18 1994

Mr. Harold S. Masumoto
Director
Office of State Planning
State of Hawaii
Honolulu, Hawaii

Dear Mr. Masumoto:

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your February 23, 1994 comments regarding the subject project. With reference to your concern about the method of wastewater disposal, our responses to your comments are as follows:

1. We understand and agree with your concern about the need to protect water quantity and quality for both groundwater sources and freshwater and marine ecosystems. Given the unavailability of any kind of public wastewater treatment system in the area, the options available are limited to a few systems which meet the guidelines developed by the State Department of Health (DOH). Our understanding of the DOH guidelines is that a septic tank and shallow leaching system would comply with existing rules. We understand this would qualify as complying with Chapter 205A.

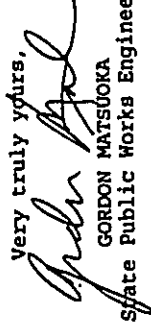
2. Issues of soil porosity and potential groundwater contamination will be reviewed in more detail in a later phase of the project. The DOH will review system effectiveness and site conditions at that time to ensure the protection of water quality. Although it is possible that underground lava tubes may send direct discharges to the ocean, this can be mitigated with appropriate geotechnical investigations. Also, we feel the sheer distance of all the sites from the ocean make it unlikely to have any impact on marine environments. There are no nearby

freshwater streams, ponds or lakes that are likely to be affected by development on any of the sites. We will be mindful of all these concerns when we develop the site plan, select the specific equipment and install the infrastructure.

3. In a larger context, we are aware that there is a possibility that the County municipal line may be extended from the Hilo direction or that a private treatment plant may be built in the Keau area to service a possible new subdivision. The school may be able to hook into either scenario. The potential availability and cost of these connections is a consideration in the school selection process.

We appreciate your input for this project.

Very truly yours,


GORDON MATSUOKA
State Public Works Engineer .

AY:jk
cc: Mr. George Atta, Group 70 International, Inc.



RECEIVED

FEB 28 1994

GROUP 70

STATE OF HAWAII
DEPARTMENT OF EDUCATION
MOUNTAIN VIEW ELEMENTARY SCHOOL
P.O. BOX 9
MOUNTAIN VIEW, HAWAII 96771



SEND COPIES TO
APPROPRIATE PARTIES

→ DRES

Please fax to
Lupin Morita at
DRES for
response/follow-up

Feb. 24, 1994

Office of Environmental Quality Control
220 S. King St.
Honolulu, HI 96813

To whom it may concern:

I am very interested in the site selection process for the new Kea'au Elementary School and would like to submit comments for your consideration.

May I have a copy of the Draft Environmental Impact Statement for the new Kea'au Elementary School? I was at the public hearing held earlier in the school year at the present Kea'au School site and am particularly concerned about traffic safety of the new location.

Thank you very much.

Sincerely,

Muriel M. Hughes
Principal

NO RESPONSE NECESSARY

AT THIS TIME.



United States Department of the Interior

WATER RESOURCES DIVISION
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813

RECEIVED
MAR - 2 1994

February 28, 1994

Governor of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

GROUP 70

Dear Governor Walker:

Subject: Kakaia II Elementary School, Draft Environmental Impact Statement (DEIS), Puna, Hawaii

The staff of the U.S. Geological Survey, Water Resources Division, Honolulu District, has reviewed the subject DEIS and we have no comments to offer at this time.

Thank you for allowing us to review this DEIS.

We are returning the DEIS to your office for your future use.

Sincerely,

William Heyey
William Heyey
District Chief

Enclosure

cc: Mr. Ralph Horita
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawaii 96810

Mr. George Atta
Group 70 International, Inc.
924 Bethel Street
Honolulu, Hawaii 96813

NO RESPONSE NECESSARY
AT THIS TIME.



CORRECTION

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



United States Department of the Interior

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813

February 28, 1994

RECEIVED
MAR - 2 1994

GROUP 70

Governor of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

Dear Governor Walker:

Subject: Keolu II Elementary School, Draft Environmental Impact Statement (DEIS), Puna, Hawaii

The staff of the U.S. Geological Survey, Water Resources Division, Honolulu District, has reviewed the subject DEIS and we have no comments to offer at this time.

Thank you for allowing us to review this DEIS.

We are returning the DEIS to your office for your future use.

Sincerely,

William Heyey
William Heyey
District Chief

Enclosure

cc: Mr. Ralph Morita
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawaii 96810

Mr. George Atta
Group 70 International, Inc.
926 Bethel Street
Honolulu, Hawaii 96813

NO RESPONSE NECESSARY

AT THIS TIME.





STATE OF HAWAII
 OFFICE OF HAWAIIAN AFFAIRS
 711 KAPOLANI BOULEVARD SUITE 500
 HONOLULU, HAWAII 96813-2105
 PHONE (808) 548-3177
 FAX (808) 548-3199

RECEIVED
 MAR - 3 1994
 GROUP 70

March 01, 1994

Governor, State of Hawaii
 c/o Office of Environmental Quality Control
 220 South King St, Fourth Floor
 Honolulu, HI 96813

Dear Sir/Madam:

Thank you for the opportunity to review the draft environmental impact assessment (DEIA) and site selection study for the proposed Keahu II Elementary School, Puna District, Island of Hawaii. After a careful review of the EIA, we find no adverse impacts stemming from the proposed development.

Sincerely yours,

Dante K. Carpenter
 Administrator

LM:lm
 cc Clayton H.W. Hee, Chairman
 Board of Trustees

Mr. Ralph Morita
 Dept. of Accounting and General Services
 POB 119, Honolulu, HI 96810

Mr. George Atta
 Group 70 International, Inc.
 924 Bethel St, Hon. HI 96813

NO RESPONSE NECESSARY
 AT THIS TIME.

miniti



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII
25 AUPUNI STREET • HILO, HAWAII 96720
TELEPHONE (808) 989-1421 • FAX (808) 989-6996

March 1, 1994

Mr. Ralph Morita
State of Hawaii
Department of Accounting and General Services
P. O. Box 119
Honolulu, HI 96810

DRAFT ENVIRONMENTAL IMPACT STATEMENT
PROJECT: KEAAU II ELEMENTARY SCHOOL
TAX MAP KEY 1-7-03:17; 1-5-39:267; 1-5-47:206;
1-6-03:08; 1-6-03:11; 1-6-03:03

We have reviewed the subject Draft Environmental Impact Statement.
Please refer to our letter of November 5, 1993 to you for our comments and requirements.

[Signature]
M.A. Williams
Manager

WA

1 - Mr. Ralph Morita
1 - Mr. William Sewake
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]
1 - Mr. [unclear]



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

MAY 5 1994

Mr. H. William Sewake
Manager
Department of Water Supply
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Sewake:

Subject: Keaau II Elementary School
EIS Consultation Phase

Thank you for your March 1, 1994 comments on the subject project. Our responses to your comments are as follows:

1. With reference to your letter of November 5, 1993, we wish to inform you that your comments regarding Site A (No. 1), Site D (No. 4), Site E (No. 5) and Site F (No. 6) were incorporated in the evaluation of the site alternatives as described in Section 6.3.3. in the draft EIS. The costs for water development, included in our estimates for site development, reflect the conditions mentioned in your November letter.
2. However, the costs for water development for Site B (No. 2) and Site C (No. 3) do not reflect the provision of a 300,000 gallon concrete reservoir mentioned in your November letter. The draft EIS states that "A more cost effective option is to improve the existing transmission system between Keaau Town and Hawaiian Paradise Park by developing additional lines to supplement the existing capacity, as needed." This option is described in Section 6.3.3, Off-Site Improvements and the costs are shown in Table 5, Page 6-30.

ROBERT P. TANUSHI
COMPTROLLER
LLOYD I. UHEBASAMI
DEPUTY COMPTROLLER
(P) 1356-4

MAY 9 1994

... Water brings progress...

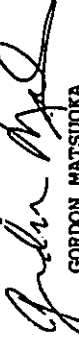


Mr. H. William Sewake
Page 2

Ltr. No. (P) 1356.4

We appreciate your input for this project.

Very truly yours,


GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta, Group 70 International, Inc.



DEPARTMENT OF THE NAVY
 COMMANDER
 NAVAL BASE PEARL HARBOR
 BOX 110
 PEARL HARBOR, HAWAII 96860-5020

11010 IN REPLY REFER TO
 Ser 23/ 7137

17 MAR 1994

RECEIVED

MAR - 9 1994

GROUP 70

Mr. Brian Choy
 Office of the Environmental Quality Control
 Fourth Floor
 220 South King Street
 Honolulu, HI 96813-4186

Dear Mr. Choy:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT AND SITE
 SELECTION STUDY FOR KEAAU II ELEMENTARY SCHOOL,
 PUNA DISTRICT, HAWAII

Thank you for the opportunity to review the Draft
 Environmental Impact Statement (DEIS) and site selection study for
 the Keau II Elementary School, Puna District, Hawaii.

The Navy has no comments to offer at this time and
 appreciates the opportunity to participate in your review process.

The Navy's point of contact is Mr. Stanford Yuen at

474-0439.

Sincerely,

M. D. CLAUSSEN
 Commander, CEC, U.S. Navy
 Deputy ACOS Facilities and Environment
 By direction of
 the Commander

Copy to:
 Mr. Ralph Horita
 Department of Accounting and General
 Services
 P.O. Box 119
 Honolulu, HI 96810

Mr. George Atta
 Group 70 International, Inc.
 924 Bethel Street
 Honolulu, HI 96813

NO RESPONSE NECESSARY
 AT THIS TIME.



JOHN WAIHEE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
809 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5087

March 7, 1994

REX D. JOHNSON
DIRECTOR
DEPUTY DIRECTORS
KAMAHI MOLT
OLENI M. OKUMOTO
JOYCE T. OAHNE
CALVIN M. TSUDA

IN REPLY REFER TO:

STP 8.5833

RECEIVED
MAR 11 1994

TO: The Honorable John Waihee, Governor
c/o Office of Environmental Quality Control

FROM: Rex D. Johnson *Rex D. Johnson*
Director of Transportation

SUBJECT: Draft Environmental Impact Statement and Site Selection Study -
Keaau II Elementary School, Puna District, Island of Hawaii
TMK: 1-5-39; 267; 1-5-47; 206; 1-6-03; 03, 08 & 11; 1-7-03; 17

GROUP 70

We have the following comments on the draft environmental impact statement for the proposed Keaau II Elementary School:

1. We find that sites 4, 5, and 6 (in the vicinity of Keaau Town) may have an impact on our proposed Keaau Bypass Road. We are currently evaluating two alternative roadway alignments and both are in proximity to one or more of the potential school sites. The site selection process should take into account the proposed bypass road alignments.
2. The draft environmental impact statement for the proposed Keaau II Elementary School indicates that a more detailed traffic assessment will be conducted to identify specific mitigative measures when the final site is selected. Besides the proposed Keaau Bypass Road, Highway 11 (Volcano Highway) and Highway 130 (Keaau-Pahoia Highway) will also be impacted since traffic has doubled in the last 11 years on these highways. We would like to reserve further comment until the assessment has been completed and submitted for our review.

We appreciate the opportunity to provide comments.

c: Mr. George Atta, Group 70 International, Inc.
Mr. Ralph Morita, DAGS



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96810

MAR 24 1994

Honorable Rex Johnson
Director
Department of Transportation
State of Hawaii
Honolulu, Hawaii

Dear Mr. Johnson:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 7, 1994 comments regarding the subject project. Our responses to your comments are as follows:

1. With regard to potential impacts from the alignment alternatives of your proposed Keaau Bypass Road, we have reviewed the alignments and discussed possibilities with your staff and come to the following general conclusions:
 - a. Site 5 (E) will definitely be affected if your Bypass Alternative 2 is selected. The space on the site would not allow sufficient noise buffer for the site. Additionally, without a clear idea of intersection design, we are unable to assess the impacts related to vehicular circulation and traffic safety.
 - b. Bypass Alternative 2 may also have an impact on Site 4 (D). However, this area is larger and has less constraints from existing conditions to configure the school and align the road in a way that address both traffic needs and safety requirements.
 - c. Bypass Alternative 1 may have an impact on Site 6 (F). While preliminary inspection indicates that there is sufficient distance (500+ feet) from the roadway to the potential

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
MAR 25 1994
GRC/JP 70
ROBERT P. TANUSHI
COMPTROLLER
LLOYD I. UHEDASAMA
DEPUTY COMPTROLLER
LETTER NO. (P) 1216.4

school boundary, the tolerance is close and actual impact will depend on school lot configuration and the actual alignment of the bypass road. It is our understanding that roadway design has some flexibility. Any potential impacts seem manageable at later design phases.

2. With regard to the potential traffic impacts, we note that your comments about the increasing traffic along Volcano Highway and Pahoa Highway is broad and would apply regardless of which alternative site or roadway alignment is chosen. We will conduct a more detailed assessment when the final site is selected. Mitigative measures will be addressed in more detail at that time.

We appreciate your input for this project.

Very truly yours,



ROBERT P. TAKUSHI
State Comptroller



RECEIVED
 APR 11 1994
 GROUP 70
 STATE OF HAWAII
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
 P. O. BOX 111, HONOLULU, HAWAII 96810
 LETTER NO. (P) 1219.4



ROBERT P. TAKUSHI
 COMPTROLLER
 LLOYD I. UHERASAMA
 DEPUTY COMPTROLLER

JOHN WAMBEE
 GOVERNOR

4/11/94

CHARLES TOUGH
 SUPERINTENDENT

2
AS
 MARCH 7, 1994



STATE OF HAWAII
 DEPARTMENT OF EDUCATION
 P. O. BOX 124
 HONOLULU, HAWAII 96810

RECEIVED
 APR 9 11 11 AM '94
 DEPARTMENT OF EDUCATION

JOHN WAMBEE
 GOVERNOR

OFFICE OF THE SUPERINTENDENT

APR 6 1994

Honorable Herman M. Aizawa
 Acting Superintendent
 Department of Education
 State of Hawaii
 Honolulu, Hawaii

Dear Dr. Aizawa:

Subject: Keaau II Elementary School
 EIS Public Review Phase

Thank you for your March 7, 1994 comments regarding the subject project. We anticipate completion of the EIS process within the next two to three months.

We appreciate your input for this project.

Very truly yours,

Robert P. Takushi
 ROBERT P. TAKUSHI
 State Comptroller

MEMO TO: Honorable Robert P. Takushi, Comptroller
 Department of Accounting and General Services

FROM: Herman M. Aizawa, Ph.D., Acting Superintendent
 Department of Education

SUBJECT: Draft Environmental Impact Statement (DEIS) and Site Selection Study
 Keaau II Elementary School

We have reviewed the subject document and have the following comments:

- 1) The document presents valuable information regarding the relative merits of all six selected sites. The information and responses to the draft will allow the Department of Education (DOE) to make an informed choice for a new elementary school which is greatly needed.
- 2) Letters implying that the DOE has already made a choice of site were appropriately addressed by the Public Works Engineer. The DOE will review all information produced by the final EIS and Site Selection Study before choosing a site which will be in the best interest of the students and community.
- 3) We have no further comments on the technical information provided by DEIS.

The DOE looks forward to completing the EIS process as soon as possible such that we may proceed to the next phase of development of the school.

If there are any questions regarding this response, please call the Facilities Branch at 737-4743.

HMN:hy

CC: A. Suga, OBS
 A. Garson, HIDO

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UKEBASAMI
DEPUTY COMPTROLLER
(P) 1203-4



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 118, HONOLULU, HAWAII 96810
LETTER NO. _____

MAR 18 1994

JOHN WAIKAE
GOVERNOR

ELITH LARIL, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

JOHN P. KUPULU
DONNA L. WAIKAE

AGRICULTURE DEVELOPMENT PROGRAM

AQUATIC RESOURCES CONSERVATION AND DEVELOPMENTAL AFFAIRS

CONSERVATION AND RESOURCES ENFORCEMENT

COAST GUARDS

FORESTRY AND WILDLIFE

HISTORIC PRESERVATION

LAND MANAGEMENT

PLANNING

STATE PARKS

WATER AND LAND DEVELOPMENT

LOG NO: 10867
DOC NO: 9403PM05



MAR 15 1994

CRC:PP /O

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

March 11, 1994

MEMORANDUM

TO: Roger Evans, Administrator
Office of Environmental Quality Control

FROM: Don Hibbard, Administrator
State Historic Preservation Division

SUBJECT: Keaau II Elementary School
Draft Environmental Impact Statement and Site Selection Study
Puna, Hawaii
TMK: 1-7-03:17, 1-5-39:267, 1-5-47:206, 1-6-03:08, 1-6-03:11, 1-6-03:03

There are no known or recorded historic sites on any of the six alternative school sites, which do not appear, however, to have ever been surveyed by an archaeologist. Recent surveys in the Keaau area indicate the presence of a variety of historic sites in areas covered with older secondary growth vegetation. One possible reason for the existence of these sites, many if not all of which may be related to plantation activities, is the presence of a stony substrate unsuitable to deep cultivation.

The probability of finding historic sites on candidate school sites A, D, E and F is extremely low because all of them are located on sugarcane land which has been extensively disturbed. The use of any of these four sites would have "no effect" on significant historic sites. However, should one of these sites be selected and archaeological remains found during construction, Marc Smith, the archaeologist in our Hilo office, should be contacted immediately (phone 933-4346).

A review of aerial photographs and geologic maps indicates that there is a high probability of lava tube sites in the area of candidate sites B and C which are located in the Hawaiian Paradise Park Subdivision. We cannot concur therefore with the statement on page 7-2 of the Draft EIS that "Should subsurface features be discovered, construction activity would cease and the State Historic Preservation Office will be notified. The appropriate and

Mr. Don Hibbard
Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Mr. Hibbard:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 11, 1994 comments regarding the subject project. Our responses to your comments are as follows:

1. We appreciate your comment that there are no known or recorded historic sites on any of the six alternative sites. We have also considered your statement that areas of older secondary growth vegetation may contain potential sites.
2. We also appreciate your comment that the probability of finding historic sites on candidate school Sites A, D, E and F is extremely low because all of the sites are located on sugarcane land which has been extensively disturbed. However, should one of these sites be selected and archaeological remains found, we will contact Mr. Marc Smith at 933-4346.
3. With regard to Sites B and C, we note your comments about the possibility of lava tubes that may contain archaeological remains. We have noted this concern on Pages 4-14 and 7-2 of the draft EIS. We recognize the sensitivity of this issue and the statement on Page 7-2 may have been misinterpreted. We will revise and clarify the paragraph to state that should Sites B or C be selected, we will undertake an archaeological inventory survey prior to construction to determine the presence or absence of historic sites.

Roger Evans
Page 2

Mr. Don Hibbard
Page 2

Ltr. No. (P)1203.4

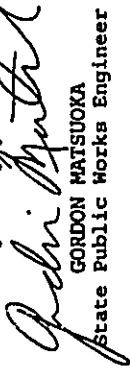
necessary steps will be taken." The appropriate and necessary step, which was pointed out in the review of the EIS preparation notice (Memorandum dated November 30, 1993 - DOC NO: 9311ks05), is to undertake an archaeological survey prior to construction to determine the presence or absence of historic sites. An inventory level survey is clearly called for in the case of sites B and C which are privately owned and which have a high probability of containing lava tubes, many of which in this area contain human skeletal remains.

PM jt

c. / Ralph Morita, Department of Accounting and General Services
George Atta, Group 70 International, Inc.:

We appreciate your input for the project.

Very truly yours


GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta, Group 70 International, Inc.

JOHN WAHNEE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96810

ROBERT P. IANUSH
COMPTROLLER
LLOYD I. UKEBASAKI
DEPUTY COMPTROLLER

LETTER NO. (P)1203.4

Mr. Don Hibbard
Page 2
LET. No. (P)1203.4

MAR 18 1994

We appreciate your input for the project.

Very truly yours
Gordon Matsuo
GORDON MATSUOKA
State Public Works Engineer

Mr. Don Hibbard
Administrator
State Historic Preservation Division
Department of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

AY:jk
cc: Mr. George Atta, Group 70 International, Inc.

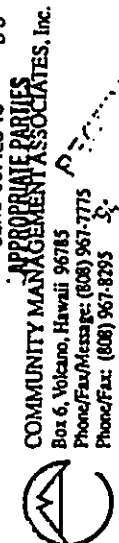
Dear Mr. Hibbard:

Subject: Keau Ii Elementary School
EIS Public Review Phase

Thank you for your March 11, 1994 comments regarding the subject project. Our responses to your comments are as follows:

1. We appreciate your comment that there are no known or recorded historic sites on any of the six alternative sites. We have also considered your statement that areas of older secondary growth vegetation may contain potential sites.
2. We also appreciate your comment that the probability of finding historic sites on candidate school Sites A, D, E and F is extremely low because all of the sites are located on sugarcane land which has been extensively disturbed. However, should one of these sites be selected and archaeological remains found, we will contact Mr. Marc Smith at 933-4346.
3. With regard to Sites B and C, we note your comments about the possibility of lava tubes that may contain archaeological remains. We have noted this concern on Pages 4-14 and 7-2 of the draft EIS. We recognize the sensitivity of this issue and the statement on Page 7-2 may have been misinterpreted. We will revise and clarify the paragraph to state that should Sites B or C be selected, we will undertake an archaeological inventory survey prior to construction to determine the presence or absence of historic sites.





COMMUNITY MANAGEMENT ASSOCIATES, INC.
 Box 6, Volcano, Hawaii 96785
 Phone/Fax/Message: (808) 967-7775
 Phone/Fax: (808) 967-8295

March 11, 1994

Governor, State of Hawaii
 c/o Office of Environmental Quality Control
 220 South King Street, 4th Floor
 Honolulu, Hawaii 96813

RECEIVED
 MAR 29 1994

To whom it may concern,
 REGARDING: DEIS Keau II Elementary School, Puna, Hawaii
 GROUP 70

1. Failure to consider impacts of future growth on district boundaries. Relating to Sections 6 through 11.

This draft disregards demographic growth trends affecting the area, and the short and long term implications of those trends in combination with the existing permitted uses. The growth patterns of the area clearly indicate that additional districts, both short and long term should have been considered. Population growth since 1970 has followed an accelerating curve of in-migration to the substandard subdivisions, with the population as a whole almost doubling every ten years, as pointed out in section 3.15.2. Virtually all of that growth has been in the substandard subdivisions, where population has doubled every five years. In addition, the subdivision population is much younger than the older towns, over 1/3 are under 18, and, according to Department of Health records, these are mostly young native Hawaiian families. In Puna subdivisions is found the highest rate of teen age pregnancy, low birth weight babies, and children on lunch assistance. These are the people who deserve the highest priority for support by our educational system, the people most in need of strong neighborhood schools.

At the present growth rate of Puna, there are enough new children for an additional elementary school district every 2-5 years. The number of elementary school districts should be doubling every ten years along with the population, with all the new districts in the subdivisions. These demographic trends and their implications were not considered. This limitation in the scope of planning analysis appears to be on specific direction from the Department of Education. Standard planning practice requires long term consistency in land use analysis, projecting concurrency of facilities with established Level of Service standards, and compactness of planning units to produce least cost alternatives based on long term projections. The requirements of Hawaii Revised Statute Chapter 343 are not satisfied unless these trends are taken into account and planning standards met. Without projection of a increase in the number of districts, all site evaluations, impact assessments on traffic projections, but subsidies, cumulative impacts, alternatives to proposed action, short term versus long term productivity, and commitments of resources are meaningless.

Community Management Associates, Inc. re: Keau II DEIS 2

We attach four maps showing demographic areas of 5,000 population (The population at which an elementary school district for 500 to 600 children is indicated. The maps show projections for 1990, 1995, 2000, and at build-out with currently permitted use.). These estimates are based on current and historic trends. They indicate that within the period considered, to the year 2017, the current district would need to be divided three or more times.

By 1995, before completion of any new school, Paradise Park should have its own elementary school district. Well within the planning period, elementary districts within the subdivisions of Hawaiian Paradise Park, Orchidland and Ainaloa, and Hawaiian Acres should be anticipated. These would virtually eliminate elementary school traffic on primary arterials, and greatly reduce busing. If, instead, a large new elementary is constructed at Keauu, (which cannot be filled by students from Keauu and Kuristown alone) students will have to be bused from subdivisions with schools, just to fill empty classrooms in Keauu.

It is imperative to consider another alternative: designating a new district defined by the boundaries of Hawaiian Paradise Park. This would relieve the overcrowding at Keonepoko, Waialea, and at Keauu, would lessen traffic congestion, and eliminate a large proportion of the busing to all schools.

2. Failure to consider costs of failure to act in a timely manner regarding land acquisition for future school needs. Sections 6 through 11.

Other jurisdictions with substandard subdivisions have faced similar problems.

"At build-out, Cape Coral will need five to seven high schools, six to eight middle schools, and at least twelve elementary schools..."
 "It is particularly important that the City begin to assemble land for public use as soon as possible. The rapid development that is occurring in Cape Coral is quickly making it difficult to assemble large, undeveloped sites. As vacant land becomes less plentiful, the cost of land rises. Acquiring and assembling land in advance of need will reduce acquisition costs, and enable the City to provide adequate public facilities on the most suitable sites as they are needed."
 "In 1987 the School Board condemned platted lots for the first time in Cape Coral's history. The 21 acre site consisting of 78 buildable homesites was developed by the expensive process of multiple condemnations. Although no improved properties were condemned, and no residents were [re]located, the legal costs of acquisition were high -- school board officials estimated that court costs and attorney and appraisers fees composed 25% of the total cost of acquisition of Skyline Elementary School. These acquisition costs will certainly continue to rise...In the future acquisition costs will be drastically increased not only by the higher price of land, but also by the cost of condemning dwelling units and relocating their occupants."
 -City of Cape Coral, Part I: The Platted Lands
 Context, p. 0427-16, 1989.

At build-out, the 80,000 homesites in substandard subdivisions of the Big Island will need seven or more high schools (20-30 acres each), ten to twelve middle schools (twelve acres each), and

of HPP with water and a school, the potential market value of lots in new subdivisions such as that proposed by W. H. Shipman, would drop probably below profitability. There is a powerful private financial motive to tailor the scope of site evaluations to favor Keaau sites. Excluding analysis of the impact of growth and the costs of failure to act regarding needs of the standard subdivisions accomplishes that tailoring, at the cost of hundreds of millions of dollars that would be avoided by timely facilities planning, and at the cost of equal opportunity and well-being of disadvantaged Hawaiian families.

4. A additional information.

Section 3.5 & 3.17 and other references to drainage issues.

We would like to provide additional information on streams. Historic and archaeological reports indicate that there was once a perennial stream that entered the sea at Keaau Beach. Natural geographic and human topographic modifications have since altered the drainage patterns and are continuing to do so. There is a current flooding problem, arising from some human modifications to that drainage pattern that may affect two of your sites, D and F.

The root of the problem is a 1/2 mile, 10' high concrete and stone diversion wall, built by Oia's Sugar Company (Amfac) in 1938. It starts just below South Kulani Bridge in Mountain View. It diverts water from the Keaau/Oia's boundary (where Kilauea's pahoehoe ends and Mauna Loa ash clay begins) into Hawaiian Acres subdivision, where it joins the Waipahoehoe drainage way. The purpose of the wall was to divert water away from cane fields and into what was then "wasteland."

This diversion wall is the cause of extreme flooding problems in Hawaiian Acres and Orchid Land subdivisions, flooding that is increasing as clearing continues in Glenwood area. Hawaii County Civil Defense and Department of Public Works have been working with the subdivisions on these problems. One of the proposed solutions is to remove the wall, so that the water would go back to its natural course, where it crosses fewer roads and building sites.

We attach a map made in 1979 by the Soil Conservation Service, showing where the water went when a debris blockage at South Kulani Bridge diverted most of the water around the beginning of the diversion wall. As can be seen, the map shows the water crossing Highway 130 about 1/2 mile from sites D and F, near the location of the beginning of the proposed by-pass.

Since 1979, a number of topographic modifications have taken place in this drainway, evidently made by owners unaware of the drainage pattern. For instance, the 1979 flood passed through

twenty to thirty elementary schools (ten acres each), depending on ohana permitting. Land has not been provided in the subdivisions for even present deficiencies, which are about 15% of all the above figures, much less for the build-out deficiencies. The cost of acquiring the 600 acres for schools now would be in the neighborhood of \$15 million, at \$25,000 per acre. Many sites could be assembled by market purchase of most lots. If put off until land must be assembled through condemnation, with existing dwellings that would need to be relocated, the costs of site acquisition will skyrocket, including proportionate legal and appraisal fees. That cost increase, with commensurate strife and litigation, can be expected within ten years, and will continue to increase as more schools are needed, while fewer unoccupied lots remain.

We have a very narrow window of opportunity to wisely manage public resources. Failure to anticipate these facilities costs in a timely manner is an irreversible and irremediable commitment of many hundreds of millions of dollars of public resources, and the imposition of extreme stress and dislocation on families who have not yet located their homes in the subdivisions. Most could be avoided by timely planning that is mandated by HRS Chapter 343 and HRS Chapter 226.

For the DOE to decline even rudimentary analysis of these near and long term issues, citing limitations in the mandate from the legislature, is puzzling and inconsistent with the legal mandate contained in the State Constitution and the State Plan.

3. Appearance of conflict of interest.

There is only one scenario which could justify an additional school in Keaau. That is if W. H. Shipman's proposed subdivision is considered to be already accepted by all agencies that must approve it. The current analysis cannot consider what is several years and many permits away, and could well be prohibited by concurrency requirements. If the choice of sites for a public school primarily benefits and justifies a proposed development, at cost to existing disadvantaged communities, it is evidence of conflict of interest on the part of the DOE. It appears that the scope of the site evaluation study has been designed by the Department to direct evaluation and analysis away from long term growth considerations in the standard subdivisions, and away from the costs of failure to act. This apparent direction by DOE to the consultant results in a bias which favors selection of a site in Keaau.

The inventory of buildable homesites in Puna exceeds 40,000, approximately 8,000 of them in the Keaau Elementary School district. The market for additional homesites is dependent upon and limited by the fact that the existing available homesites are without services, especially water and schools. If Keaau II Elementary School is placed in Hawaiian Paradise Park, providing a section



part of the area that was developed as Keauau Ag Lots in the mid-1980s. I do not know whether the subdivision development modified the drainage pattern. If not, several existing houses are directly in its path. As reported in the Puna CDP Technical Reference Report, drainage patterns in Puna are ill-defined and can be significantly diverted by relatively minor modifications to the topography. I recommend a careful topographic evaluation of the area above sites D and F.

Section 6.2.2 & 3 and other references to the Land Use District and County zoning concerning the two sites in Hawaiian Paradise Park.

As noted in the Puna CDP Technical Reference Report, District and zoning designations are inconsistent with permitted use in many of Puna's standard subdivisions. Hawaiian Paradise Park is one of those places, where permitted use is actually Urban and residential. This is inconsistent with the State Plan, HRS 226, requirement for a "rational base" in land use designations and population growth projections. Giving the two sites in HPP a poor rating because of government inconsistency in land use designations compounds the error. It should also be noted that the two parcels have deed restrictions limiting them to educational and recreational use. The rating should be good, assuming consistency and rational base for land use designations.

6.2.2 & 3 Sites B & C regarding Size

The lack of adjacent County park should not count against these sites. They were originally set aside for parks and schools. The County Level of Service indicates that at the present HPP population, HPP is deficient in over 17 acres of active park, including over \$7 million in improvements. These sites are the ones designated by the original developer for schools and parks, and stipulated in their deeds. Raising these sites down because they have failed to receive the government services to which they are legally entitled, and for which they have already paid, in effect says that they should be deprived of government services because they have been deprived of government services.

6.2.2 & 3 Sites B & C regarding Wastewater

These two sites were rated lower than other sites because of the rapid drainage. It is my understanding that a leach field was installed at the new Keonepoko School in comparable pahoehoe. My limited experience with residential leach fields has been that the need to import soil for a leach field in pahoehoe is made up for by the much smaller area needed compared to areas with deep soil. Did the engineering consultants take these local conditions and practices into account in making the ratings?

6.2.4.5 & 6 Sites D, E and F regarding industrial/agricultural nuisances

The commentary on Site A under this criteria says: "The site is adjacent to a privately owned plant farm...the owners do apply pesticides and herbicides regularly. The school site has the potential to for experiencing wind drifting of these chemical (sic) should the wind blow from a north, north eastern direction." The flower and foliage farms around site A are on abandoned cane land. Sites D, E, and F are all surrounded by abandoned cane lands, highways, and (site F) a macadamia nut orchard. It would seem logical to assume that these sites are as likely as Site A to have regular applications of pesticides and herbicides on adjacent properties. Yet they are rated Good while A is rated Fair. This is inconsistent.

Section 6.3.3 Off-site Improvements regarding Roadway, Water

Sites B & C, once again, are inadequately served because of local government service deficiencies, reflecting unequal delivery of services to this disadvantaged neighborhood. Is it logical that HPP, or any substandard subdivision, be deprived of service in the future because it is now deprived of service? This makes a mockery of the basic rationale for state versus local school systems. If the state system is supposed to provide for equal treatment, then inadequate services in disadvantaged areas, caused by unequal treatment at the county level, should not justify depriving those areas of equal educational services.

Section 6.3.4 Bus Subsidy Costs

These bus subsidy costs are based on an assumption of no change in the district boundaries. New districts are inevitable in the twenty-five year time frame, given the growth rate in the district. See comments on long-term impacts, cumulative impacts, alternatives to proposed actions, and irreversible and intractable commitments of resources at the beginning of these comments.

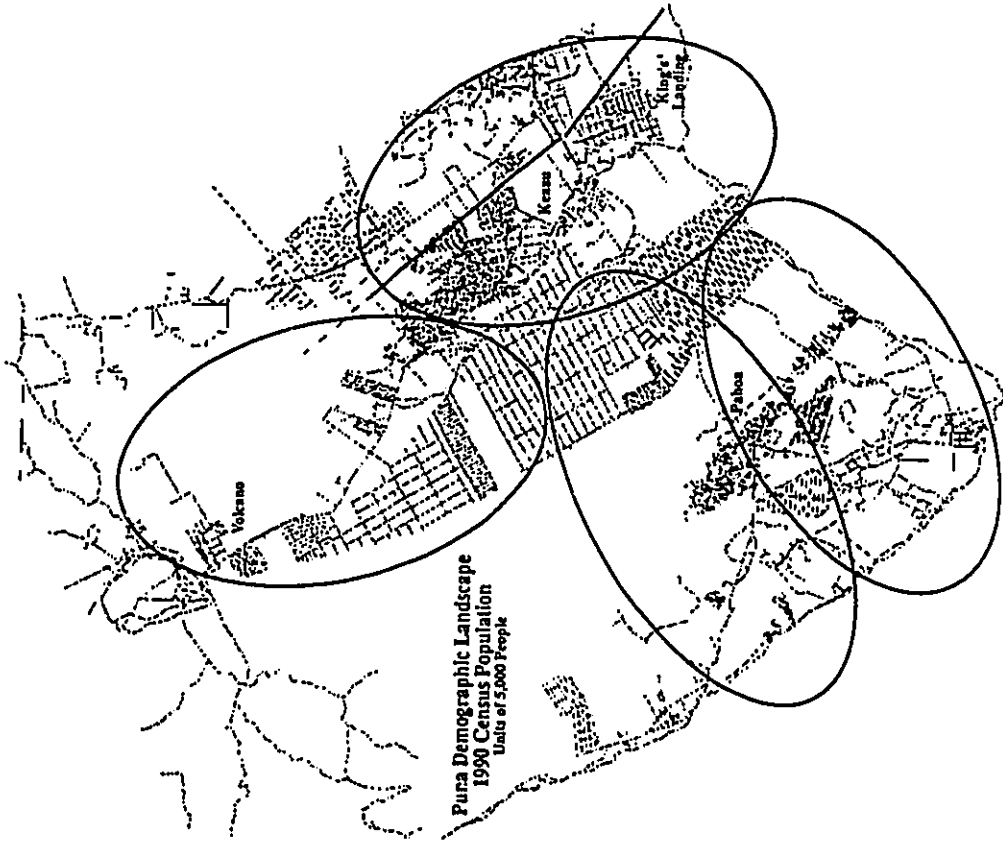
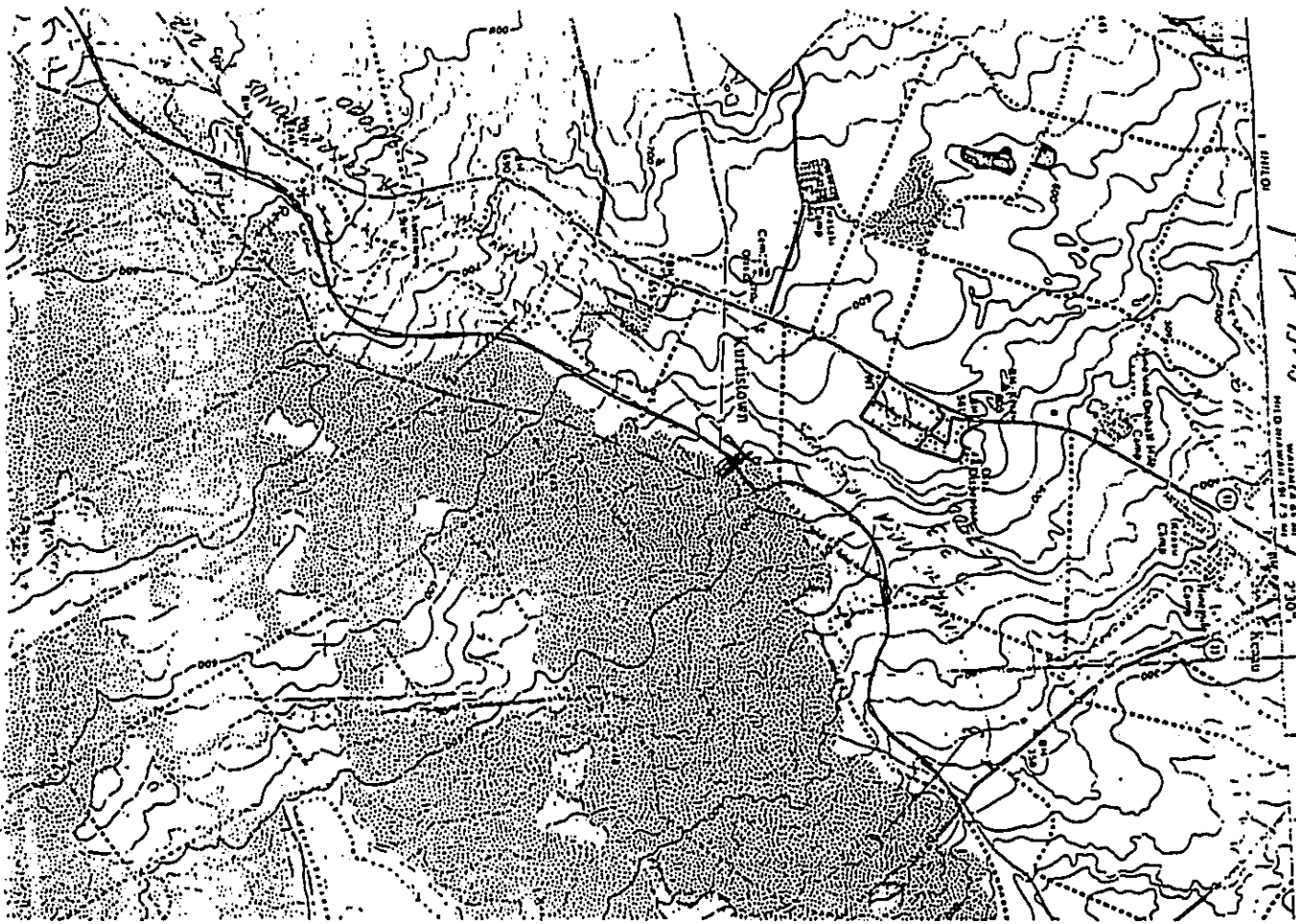
Thank you for the opportunity to comment.

Sincerely

Bonnie Goodell
Bonnie Goodell
Ginny Asif
Ginny Asif

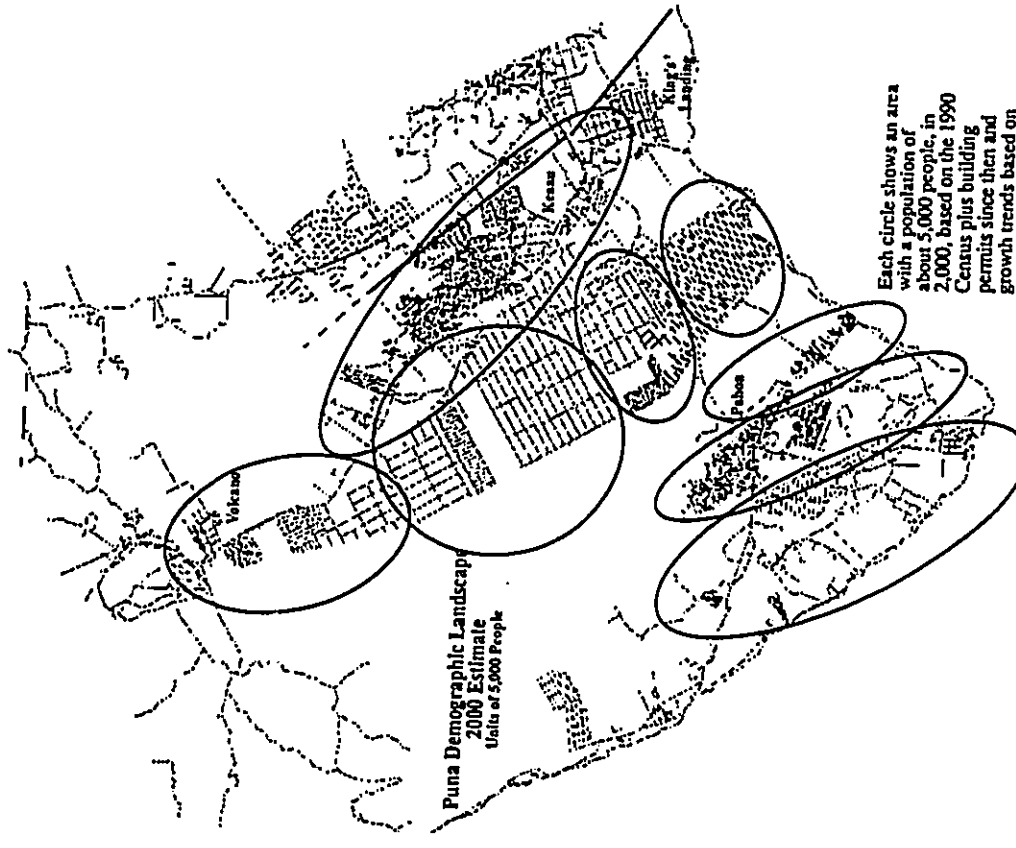
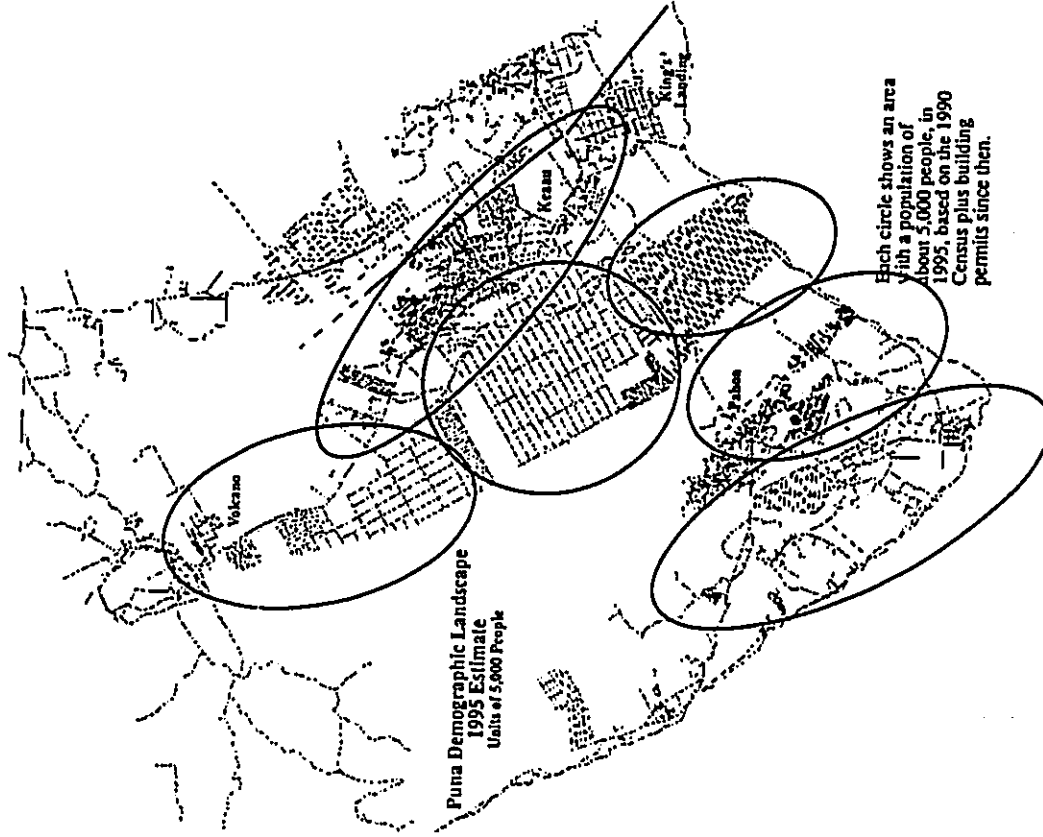
attachments: Map of 1979 floodway

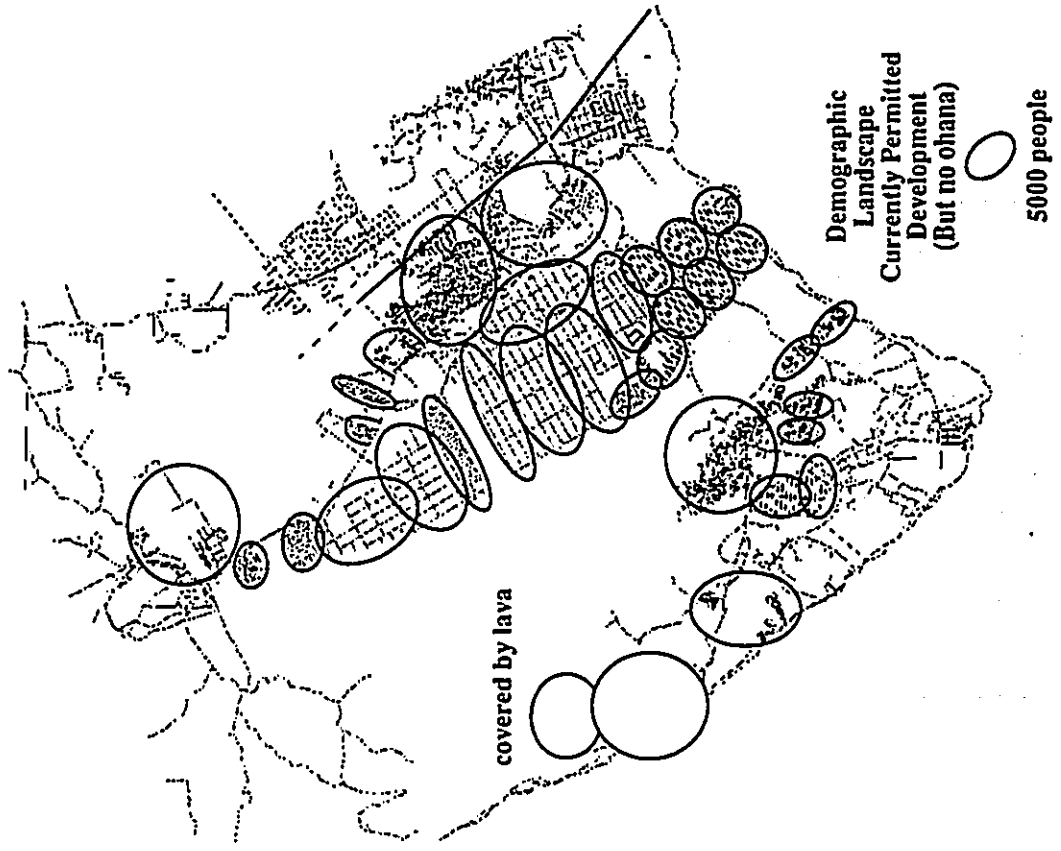
Four maps of population clusters, based on growth trends and permitted uses.



Each circle shows an area with a population of about 5,000 people, according to the 1990 Census.

1979 Flood





Ms. Bonnie Goodell
Ms. Ginny Aste
Page 2

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UNEBASAMI
DEPUTY COMPTROLLER
LETTER NO. (P) 1470.4



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96818

MAY 25 1994

Ms. Bonnie Goodell
Ms. Ginny Aste
Community Management Associates, Inc.
Box 6
Volcano, Hawaii 96785

Dear Ms. Goodell and Ms. Aste:

Subject: Keanu II Elementary School
EIS Public Review Phase

Thank you for your March 11, 1994 letter regarding the January 1994 draft EIS for the proposed Keanu II Elementary School. We appreciate your observations and concerns and will consider them in our assessments. With reference to the specific comments in your letter, we offer the following responses:

1. The issue of demographic trends will be discussed more fully in the final EIS. We wish to note that the need for a new Keanu II Elementary School is the result of the Department of Education's (DOE) recognition of the population growth within the school's service area boundaries.
2. With regard to the need for additional school districts, the DOE is aware of the need and will continue to plan for additional schools in the area as the school population increases. However, the scope of this study is limited to the site selection for an elementary school within the existing Keanu School service area.
3. With regard to a long term public school needs assessment for the Puna district, ideally the DOE would like to reserve sites for future needs within multiple school districts. However, the DOE is not in a financial position to build school facilities or acquire vacant sites based on potential need. School sites are selected and facilities are planned and constructed based on current needs within the existing district. Generally, this means that planning for a new school begins when an existing school student population

exceeds design capacity by 400 students. It is not the practice of the DOE to plan or build school facilities based on the potential for residential development because some subdivisions may not develop to their full potential for 30 to 40 years. Vacant reserved land will also create a maintenance and liability problem for the DOE.

The comment about concurrency is an issue with new subdivisions. It is because of inadequate provisions in earlier subdivisions that the current problems of concurrency exist. With regard to compactness and least cost solutions, at this point in time, economies of scale and operating costs limit the options available to the DOE.

4. With regard to a population of 5,000 at which an elementary school district for 500 to 600 children is indicated in your graphics, the DOE does plan for additional schools based on existing enrollments, population projections and birth rates. However, the DOE does not use the one school per 5,000 population mentioned in your letter. Due to differences in population characteristics, for example retired communities, a population base of 5,000 does not necessarily indicate the presence of 500 to 600 elementary school aged children.

5. Regarding the designation of an additional school district solely for Hawaiian Paradise Park, the DOE is aware of the need for more facilities and will redraw district boundaries as the school population continues to increase. However, the scope of this study is to conduct a site selection process for one school in the existing school district, not just for Hawaiian Paradise Park.

6. The comment about failure to act in a timely manner is understood but, at this time, it is the legislative intent to plan for the site selection and construction of only one new elementary school within the existing Keanu School service area district. The mandate in the budget appropriations is very clear in this regard. The DOE has responded to this mandate within a timely manner. This limitation is not because the DOE is not aware of the opportunity costs associated with delay. The mandates of Chapter 343 and Chapter 226 refer to

planning. Implementation is contingent on the availability of resources. Again due to limited funding, the DOE is not in a financial position to acquire sites, build school facilities or assume liabilities and carrying costs based on future potential need.

7. With regard to justification for an additional school in Keaau and an apparent conflict of interest, the DOE's school planning process has proceeded on the basis of the site selection process and has applied the criteria set forth by the DOE equitably to all sites. This process has taken into consideration potential sites anywhere within the existing Keaau School service area boundaries. The six candidate sites under consideration as the result of that process are located in Hawaiian Paradise Park, Kurtistown, and Keaau. The site selection criteria have been applied equitably to all the sites. It has not been tailored to favor one site over another. Within the existing service area, the need for an additional school is justified regardless of the future of subdivision plans proposed by W. H. Shipman. We feel there is no conflict of interest here. The DOE's criteria is reported in the draft EIS and site selection report.

8. With regard to drainage issues which you feel may impact Sites D and F, the Hawaii County Public Works Department states that while the diversion wall still exists because of the extensive topographic modifications made during the past two decades by the construction of homes and subdivisions, it would be impossible to predict the drainage pattern if such a flood occurred today. The department noted that the 1979 flood was a 100-year flood (a flood which occurs on average once every 100 years).

9. With regard to inconsistency of zoning designations, the DOE is not in a position to question the authority of the State and County's land use designations for any parcel. The DOE recognizes that zoning within Hawaiian Paradise Park allows for residential as well as agricultural development. Land use designations were applied uniformly and without prejudice for all sites.

10. We understand your frustration about the circuitous manner in which the lack of existing facilities negatively impacts the placement of other facilities.

However, this criteria was uniformly applied to all sites. The lack of a County park adjacent to any site is less than ideal because it requires the DOE to spend their limited funding on the acquisition of additional acreage rather than on school facilities. The lack of an existing park increases acquisition and development costs as well as longer term maintenance costs. Shared facilities maximizes the use of limited public funds.

11. Regarding the issue of wastewater, the draft EIS states that the Department of Health has approved a leach field disposal method. Therefore, the Hawaiian Paradise Park sites were rated (as were the other sites) accordingly to their soil conditions and ability to accommodate a leach field system. After a site is chosen, more in-depth evaluations will be conducted during the design phase to address all of the Department of Health's concerns related to the leach field operations.

12. Regarding comments about industrial/agricultural nuisances, the issue is not one of whether a site is surrounded by abandoned cane lands or highways. The issue is adjacent active agricultural use and the applications of chemicals. We recognize that adjacent to Site F is a macadamia nut farm. We have re-evaluated the criteria and have rated Site F as Fair. It should be noted that the wind direction relative to Site F places the macadamia nut orchard parallel to Site F, not downwind. Also, the size of Site F allows the creation of a buffer area if needed.

13. The site selection criteria takes into consideration the relative cost implications of each site and how those cost implications will impact the DOE's limited budget to provide the new school. It should be stated that the older subdivisions which were granted subdivision approval without adequate infrastructure naturally reflect greater cost implications to upgrade potential school sites. However, it is not the responsibility of the DOE with its limited budget to upgrade a standard site. While there may be a question of inequity, the DOE is not in a position to compensate communities in this manner.

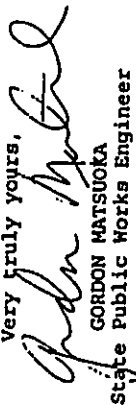
Ms. Bonnie Goodell
Ms. Ginny Aste
Page 5

Ltr. No. (P)1470.4

14. With regard to bus subsidy costs, we are aware that new districts may be developed in the future. However, as noted previously, the scope of this study is not based on potential future school district boundaries.

We appreciate your input for this project. The final EIS will include the comments that have been made in this review period as well as our responses and revisions. We hope to complete the EIS process within the next two to three months and also look forward to the next phase of school development.

Very truly yours,


GORDON MATSUOKA
State Public Works Engineer

RM:jk
cc: Mr. George Atta

JOHN A. SHINE
DIRECTOR



JOSEPH K. CONANT
EXECUTIVE DIRECTOR

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
HOUSING FINANCE AND DEVELOPMENT CORPORATION
817 OAHU STREET, SUITE 200
HONOLULU, HAWAII 96813
FAX (808) 547-8600

WE HERBY REFER TO
94: PPE/2140

MAR 21 1994

March 17, 1994

G-CEP 70

TO: Governor, State of Hawaii
City Office of Environmental Quality Control

FROM: *Joseph K. Conant*
Executive Director

SUBJECT: Draft EIS and Site Selection Study, Keaau II
Elementary School

Thank you for the opportunity to review the subject report. We
have no comments to offer.

c: Ralph Morita, DAGS
George Atta, Group 70 International, Inc.

NO RESPONSE NECESSARY
AT THIS TIME.



APPROPRIATE PARTIES

Brooks Maloof
P.O. Box 1616
Pahoa, HI 96778
March 20, 1993

Peter Morton
HCR 6415
Pahoa, HI 96749

34 MAY 23 1993

JOHN WARD
COUNTY



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96819

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD UMEBASAMI
DEPUTY COMPTROLLER
LETTER NO. (P) 1396.4

REGARDING: DEIS Keaau II Elementary School, Puna, Hawaii

To whom it may concern,

The Draft EIS fails to consider the lost opportunity costs of failing to make use of the sites offered in Hawaiian Paradise Park. The Paradise Hui Hanalike owns six twenty-acre parcels, 120 acres total, with deed restrictions for education or recreation. We have recently completed a masterplanning project in which we inventoried future needs for public lands. Based on a projected build-out population of over 30,000, we estimate we will need six elementary sites at 10 acres each, two intermediate school sites at twelve acres each and two high schools at 25 acres each, for a total of 134 acres of school sites. We also estimated that we will need 150 acres of public parks.

Obviously, our set aside land is less than half of what will be needed for recreation and education. We are working with the County of Hawaii to refine and implement our master plan. Since our growth rate is so high, and our population is so young, we feel the need to implement parks and schools as soon as possible. We urge both the State and the County to insure ample set aside land for public facilities as soon as possible. Assembling parcels of the needed size will rapidly become impossible without condemnation of people's homes. That is not in anyone's interest.

We therefore urge you to consider, in your EIS, the potential future costs of assembling school sites on your own, by condemning homes, if you fail to take advantage of our offer of sites now. By the time you next consider school sites, we may have given our sites to the County for parks.

In addition, the DEIS failed to consider the possibility of designating an additional school district, just for HPP, instead of replacing Keaau Elementary. If HPP became its own district (it already has enough children), it would eliminate a lot of the traffic problems for the area and a lot of the busing costs, immediately. It would also relieve overcrowding at Keonepoko, Waiakea, and especially Keaau.

We believe you need to consider the needs of the children first. The growing number of children in the subdivisions is never analyzed in the DEIS.

Sincerely,
Peter Morton
Peter Morton

Brooks Maloof
Brooks Maloof

Mr. Brooks Maloof
P. O. Box 1616
Pahoa, Hawaii 96778

Dear Mr. Maloof:

Subject: Keaau II Elementary School
EIS Public Review Phase

MAY 10 1994


Thank you for your March 20, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to consideration of lost opportunity costs of failing to make use of sites offered in Hawaiian Paradise Park (HPP), the draft EIS does reflect the Paradise Hui Hanalike's offer to donate free of charge all or part of the 20 acres of either Site B or Site C to the State of Hawaii for use as an elementary school. Section 6.3.1, Comparative Land Value in the draft EIS, illustrates the costs of the sites relative to one another. Please note that cost is one of the main criterion used in the site selection evaluation.
2. With regard to providing school facilities based on projected build-out of subdivision developments, the DOE is not in a financial position to build school facilities based on potential need. School sites are selected and facilities planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.
3. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keaau School. If one of the HPP sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

Mr. Brooks Maloof
Page 2

Ltr. No. (P)1396.4

We appreciate your input for this project.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta



From: Robert Arthurs
P.O. Box 1133
Kurtistown HI 96760
Date: 22 May 94

SEND COPIES TO
APPROPRIATE PARTIES

TO:
JOHN WAIHEE, Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

STEPHEN K. YAMASHIRO, Mayor
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

REGARDING: DEIS Keau II Elementary School, Puna, Hawaii

Dear Governor Waihee and Mayor Yamashiro,

This is to request land purchase for future schools and parks in the subdivisions NOW. We need NEIGHBORHOOD schools and parks for our children. This will save bus trips. It will save our children and families time wasted on long, dangerous bus rides and commutes. Families can support their schools and parks. Kids can ride their bikes.

IF THE SITES NEEDED ARE BOUGHT NOW.

- WE CAN ASSEMBLE SITES IN GOOD LOCATIONS IN OUR SUBDIVISION AT LOW COST.
 - THEY CAN BE CENTRALLY LOCATED SO WATER CAN SERVE MANY PUBLIC FACILITIES.
 - NO ONE'S HOME WILL NEED TO BE CONDEMNED.
- IF THE GOVERNMENT COMES BACK IN 5 OR 10 OR 20 YEARS TO CONDEMN HOMES WE WILL REMEMBER THAT WE ASKED YOU TO DO THIS IN 1994 WHEN IT WAS STILL INEXPENSIVE AND NO HOMES NEEDED TO BE CONDEMNED.

I live in Oakwood Estates subdivision. It has 2483 lots. When there is one house per lot, with three people average per house, there will be 7449 people. We need an elementary school for about every 5,000 people, ten acres each plus a ten-acre park next door. So, our subdivision needs 20 acres of land for park and elementary school complexes. Intermediate and high school complexes, about forty acres each, are needed for about every 10,000 to 15,000 people, so we need about 40 acres of land for intermediate and high schools. We (~~do~~ do not) need to share facilities with neighbor subdivisions.

We need to set aside another three acres of county parks for every thousand people, in addition to the parks by the elementary schools. That is 21 more acres for park. So altogether we need to set aside about 81 acres. Our subdivision has 1020 acres reserved for public facilities, so 81 acres need to be bought in the right configuration. Right now, vacant land in my subdivision costs about \$ 30,000 per acre, so it would cost about \$ 2,430,000 to assemble what we need. It will cost ten times or more in a few years and my house or my neighbor's houses will have to be condemned.

IT IS YOUR JOB TO MANAGE OUR TAX MONEY WISELY AND TO PLAN FOR OUR CHILDREN'S FUTURE HEALTH, SAFETY, EDUCATION AND OPPORTUNITIES. PLEASE PLAN NOW.

Sincerely,


RECEIVED
MAY 20 1994

JOHN WAIHEE
GOVERNOR



GROUP 70
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96819

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD UMEBASAMI
DEPUTY COMPTROLLER
LETTER NO. (P) 1433-4

MAY 17 1994

Mr. Robert Arthurs
P. O. Box 1133
Kurtistown, Hawaii 96760

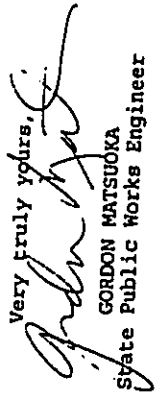
Dear Mr. Arthurs:

Subject: Keau II Elementary School
EIS Public Review Phase

Thank you for your March 23, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to providing school facilities based on projected build-out of subdivision developments, the Department of Education (DOE) is not in a financial position to build school facilities based on potential need. School sites are selected and facilities are planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.
2. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keau Elementary School. If one of the Hawaiian Paradise Park (HPP) sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

We appreciate your input for this project.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta

150
SEND COPIES TO
APPROPRIATE PARTIES
Mante

From: Jon Olson
1444 Lanani Puna Gardens

Date: 3/23/94

TO:
JOHN WAIHEE, Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813
STEPHEN K. YAMASHIRO, Mayor
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720
REGARDING: DEIS Keau Ii Elementary School, Puna, Hawaii

Dear Governor Waihee and Mayor Yamashiro,

This is to request land purchase for future schools and parks in the subdivisions NOW. We need NEIGHBORHOOD schools and parks for our children. This will save bus trips. It will save our children and families time wasted on long, dangerous bus rides and commutes. Families can support their schools and parks. Kids can ride their bikes.

IF THE SITES NEEDED ARE BOUGHT NOW,
• WE CAN ASSEMBLE SITES IN GOOD LOCATIONS IN OUR SUBDIVISION AT LOW COST.
• THEY CAN BE CENTRALLY LOCATED SO WATER CAN SERVE MANY PUBLIC FACILITIES.
• NO ONE'S HOME WILL NEED TO BE CONDEMNED.
IF THE GOVERNMENT COMES BACK IN 5 OR 10 OR 20 YEARS TO CONDEMN HOMES:
WE WILL REMEMBER THAT WE ASKED YOU TO DO THIS IN 1994 WHEN IT WAS STILL INEXPENSIVE AND NO HOMES NEEDED TO BE CONDEMNED.

I live in Lani Puna Gardens subdivision. It has (a) 144 lots. When there is one house per lot, with three people average per house, there will be (a x 3=(b)) 432 people. We need an elementary school for about every 5,000 people, ten acres each plus a ten-acre park next door. So, our subdivision needs (b÷5,000 x 20=(c)) 2 acres of land for park and elementary school complexes. Intermediate and high school complexes, about forty acres each, are needed for about every 10,000 to 15,000 people, so we need about (c÷(d)) 1.42 acres of land for intermediate and high schools. We (~~do~~) need to share facilities with neighbor subdivisions.

We need to set aside another three acres of county parks for every thousand people, in addition to the parks by the elementary schools. That is (b÷1000 x 3=(e)) 3 more acres for park. So altogether we need to set aside about (c+d+e=(f)) 3 acres. Our subdivision has (g) 0 acres reserved for public facilities, so (f-g=(h)) 3 acres need to be bought in the right configuration. Right now, vacant land in my subdivision costs about (i) \$ 20,000 per acre, so it would cost about (h x i=(j)) \$ 60,000 to assemble what we need. If we don't need it, we can always sell it later. If we do need it, and don't have it, it will cost ten times or more plus my house or a neighbor's would be have to be condemned.

IT IS YOUR JOB TO MANAGE OUR TAX MONEY WISELY AND TO PLAN FOR OUR CHILDREN'S FUTURE HEALTH, SAFETY, EDUCATION AND OPPORTUNITIES. PLEASE PLAN NOW.

Sincerely, Jon Olson



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96810

MAY 17 1994

Mr. Jon Olson
c/o Lani Puna Gardens
Community Association
Hilo, Hawaii 96721

Dear Mr. Olson:

Subject: Keau Ii Elementary School
EIS Public Review Phase

Thank you for your March 23, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to providing school facilities based on projected build-out of subdivision developments, the Department of Education (DOE) is not in a financial position to build school facilities based on potential need. School sites are selected and facilities are planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.

2. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keau Elementary School. If one of the Hawaiian Paradise Park (HPP) sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

We appreciate your input for this project.

Very truly yours,

Gordon Matsudoka
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Acta



19

From: EDWARD S. CLARK
P.O. BOX 1458
KEAAU, HI. 96749
Date: 3/23/94

SEND COPIES TO
APPROPRIATE PARTIES

TO: JOHN WAIHEE, Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

STEPHEN K. YAMASHIRO, Mayor
County of Hawaii
25 Aupuni Street
Hono, Hawaii 96720

cc: [redacted]
cc: [redacted]
cc: [redacted]

REGARDING: DEIS, Keaau II Elementary School, Puna, Hawaii

Dear Governor Waihee and Mayor Yamashiro,

This is to request land purchase for future schools and parks in the subdivisions NOW. We need NEIGHBORHOOD schools and parks for our children. This will save bus trips. It will save our children and families time wasted on long, dangerous bus rides and commutes. Families can support their schools and parks. Kids can ride their bikes.

IF THE SITES NEEDED ARE BOUGHT NOW,
• WE CAN ASSEMBLE SITES IN GOOD LOCATIONS IN OUR SUBDIVISION AT LOW COST.
• THEY CAN BE CENTRALLY LOCATED SO WATER CAN SERVE MANY PUBLIC FACILITIES.
• NO ONE'S HOME WILL NEED TO BE CONDEMNED.
IF THE GOVERNMENT COMES BACK IN 5 OR 10 OR 20 YEARS TO CONDEMN HOMES WE WILL REMEMBER THAT WE ASKED YOU TO DO THIS IN 1994 WHEN IT WAS STILL INEXPENSIVE AND NO HOMES NEEDED TO BE CONDEMNED.

I live in KEAUAU MG. LOTS subdivision.
It has (a) 322 lots. When there is one house per lot, with three people average per house, there will be (a x 3 = (b)) 966 people. We need an elementary school for about every 5,000 people, ten acres each plus a ten-acre park next door. So, our subdivision needs (b ÷ 5,000 x 20 = (c)) 4 acres of land for park and elementary school complexes. Intermediate and high school complexes, about forty acres each, are needed for about every 10,000 to 15,000 people, so we need about (c ÷ (d)) 3 to 4 acres of land for intermediate and high schools. We (~~do/~~ do not) need to share facilities with neighbor subdivisions.

We need to set aside another three acres of county parks for every thousand people, in addition to the parks by the elementary schools. That is (b ÷ 1000 x 3 = (e)) 3 more acres for park. So altogether we need to set aside about (c + d + e = (f)) 11 to 12 acres. Our subdivision has (g) NO acres reserved for public facilities, so ((g - (h)) ÷ (i)) 11 to 12 acres need to be bought in the right configuration. Right now, vacant land in my subdivision costs about (j) \$10,000 per acre, so it would cost about (h x i = (j)) \$1,210,000 to assemble what we need. If we don't need it, we can always sell it later. If we do need it, and don't have it, it will cost ten times or more plus my house or a neighbor's would be have to be condemned.

IT IS YOUR JOB TO MANAGE OUR TAX MONEY WISELY AND TO PLAN FOR OUR CHILDREN'S FUTURE HEALTH, SAFETY, EDUCATION AND OPPORTUNITIES. PLEASE PLAN NOW.

Sincerely, Edward S. Clark



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 115, HONOLULU, HAWAII 96810

MAY 17 1994

Mr. Edward S. Clark
P. O. Box 1458
Keaau, Hawaii 96749

Dear Mr. Clark:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 23, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to providing school facilities based on projected build-out of subdivision developments, the Department of Education (DOE) is not in a financial position to build school facilities based on potential need. School sites are selected and facilities are planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.

2. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keaau Elementary School. If one of the Hawaiian Paradise Park (HPP) sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

We appreciate your input for this project.

Very truly yours,
Gordon Matsuzoka
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta

08

From: Mae Kaler
P.O. Box 516
Mountain View, Hawaii 96771
Date: Mon, 3/3/1994

SEND COPIES TO
APPROPRIATE PARTIES



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96813
LETTER NO. (P) 1431.4

JOHN WAIHEE
GOVERNOR

TO: JOHN WAIHEE, Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813
STEPHEN K. YAMASHIRO, Mayor
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

REGARDING: DEIS KEEAAU II ELEMENTARY SCHOOL, PUNA, HAWAII

Dear Governor Waihee and Mayor Yamashiro,

This is to request land purchase for future schools and parks in the subdivisions NOW. We need NEIGHBORHOOD schools and parks for our children. This will save bus trips. It will save our children and families time wasted on long, dangerous bus rides and commutes. Families can support their schools and parks. Kids can ride their bikes.

IF THE SITES NEEDED ARE BOUGHT NOW.
• WE CAN ASSEMBLE SITES IN GOOD LOCATIONS IN OUR SUBDIVISION AT LOW COST.
• THEY CAN BE CENTRALLY LOCATED SO WATER CAN SERVE MANY PUBLIC FACILITIES.
• NO ONE'S HOME WILL NEED TO BE CONDEMNED.
• IF THE GOVERNMENT COMES BACK IN 5 OR 10 OR 20 YEARS TO CONDEMN HOMES WE WILL REMEMBER THAT WE ASKED YOU TO DO THIS IN 1994 WHEN IT WAS STILL INEXPENSIVE AND NO HOMES NEEDED TO BE CONDEMNED.

I live in Eden Roc Estates subdivision.
It has 1809 lots. When there is one house per lot, with three people average per house, there will be 5427 people. We need an elementary school for about every 5,000 people, ten acres each plus a ten-acre park next door. So, our subdivision needs 22 acres of land for park and elementary school complexes. Intermediate and high school complexes, about forty acres each, are needed for about every 10,000 to 15,000 people, so we need about 20 acres of land for intermediate and high schools. We (do/do not) need to share facilities with neighbor subdivisions.

We need to set aside another three acres of county parks for every thousand people, in addition to the parks by the elementary schools. That is 17 more acres for park. So altogether we need to set aside about 39 acres. Our subdivision has 20 acres reserved for public facilities, so 19 acres need to be bought in the right configuration. Right now, vacant land in my subdivision costs about \$15,000 per acre, so it would cost about \$285,000 to assemble what we need. It will cost ten times or more in a few years and my house or my neighbor's houses will have to be condemned.

IT IS YOUR JOB TO MANAGE OUR TAX MONEY WISELY AND TO PLAN FOR OUR CHILDREN'S FUTURE HEALTH, SAFETY, EDUCATION AND OPPORTUNITIES. PLEASE PLAN NOW.

Sincerely,
Mae Kaler

Ms. Mae Kaler
P. O. Box 516
Mountain View, Hawaii 96771

Dear Ms. Kaler:

Subject: KEEAAU II Elementary School
EIS Public Review Phase

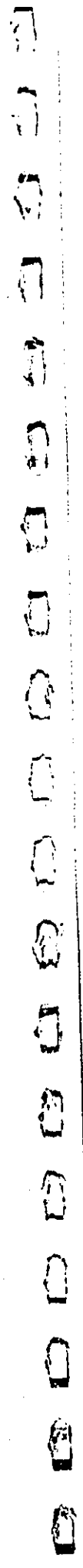
Thank you for your March 23, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to providing school facilities based on projected build-out of subdivision developments, the Department of Education (DOE) is not in a financial position to build school facilities based on potential need. School sites are selected and facilities are planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.
2. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keaau Elementary School. If one of the Hawaiian Paradise Park (HPP) sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

We appreciate your input for this project.

Very truly yours,
Gordon Matsuoaka
State Public Works Engineer

AY:jk
cc: Mr. George Atta



From: Peter Morton
HCR 6415
Keaau 96749
Date: March 23, 1994

TO: JOHN WAHEE, Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

STEPHEN K. YAMASHIRO, Mayor
County of Hawaii
25 Aupuni Street
H40, Hawaii 96720
REGARDING: DEIS KEAAU II ELEMENTARY SCHOOL, PUNA, HAWAII

SEND COPIES TO
APPROPRIATE PARTIES

8
3
28
33

JOHN WAHEE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 110, HONOLULU, HAWAII 96810

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD UHEBASAM
DEPUTY COMPTROLLER
LETTER NO. (P)11427.4

Dear Governor Waihee and Mayor Yamashiro,

This is to request land purchase for future schools and parks in the subdivisions NOW. We need NEIGHBORHOOD schools and parks for our children. This will save bus trips. It will save our children and families time wasted on long, dangerous bus rides and commutes. Families can support their schools and parks. Kids can ride their bikes.

IF THE SITES NEEDED ARE BOUGHT NOW,
• WE CAN ASSEMBLE SITES IN GOOD LOCATIONS IN OUR SUBDIVISION AT LOW COST.
• THEY CAN BE CENTRALLY LOCATED SO WATER CAN SERVE MANY PUBLIC FACILITIES.
• NO ONE'S HOME WILL NEED TO BE CONDEMNED.
IF THE GOVERNMENT COMES BACK IN 5 OR 10 OR 20 YEARS TO CONDEMN HOMES WE WILL REMEMBER THAT WE ASKED YOU TO DO THIS IN 1994 WHEN IT WAS STILL INEXPENSIVE AND NO HOMES NEEDED TO BE CONDEMNED.

I live in Hawaiian Paradise Park subdivision. It has (a) 2,800 lots. When there is one house per lot, with three people average per house, there will be (a x 3 = (b)) 26,400 people. We need an elementary school for about every 5,000 people, ten acres each plus a ten-acre park next door. So, our subdivision needs (b ÷ 5,000 x 20 = (c)) 1,200 acres of land for park and elementary school complexes. Intermediate and high school complexes, about forty acres each, are needed for about every 10,000 people, so we need about (c ÷ (d)) 120 acres of land for intermediate and high schools. We (do/do not) need to share facilities with neighbor subdivisions.

We need to set aside another three acres of county parks for every thousand people, in addition to the parks by the elementary schools. That is (b ÷ 1000 x 3 = (e)) 79 more acres for park. So altogether we need to set aside about (c + d + e = (f)) 319 acres. Our subdivision has (g) 120 acres reserved for public facilities, so (f - g = (h)) 199 acres need to be bought in the right configuration. Right now, vacant land in my subdivision costs about (i) \$20,000 per acre, so it would cost about (h x i = (j)) \$39,800 to assemble what we need. If we don't need it, we can always sell it later. If we do need it, and don't have it, it will cost ten times or more plus my house or a neighbor's would be have to be condemned.

IT IS YOUR JOB TO MANAGE OUR TAX MONEY WISELY AND TO PLAN FOR OUR CHILDREN'S FUTURE HEALTH, SAFETY, EDUCATION AND OPPORTUNITIES. PLEASE PLAN NOW.

Sincerely,

Peter C. Morton

MAY 17 1994

Mr. Peter Morton
HCR 6415
Keaau, Hawaii 96749

Dear Mr. Morton:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 23, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to providing school facilities based on projected build-out of subdivision developments, the Department of Education (DOE) is not in a financial position to build school facilities based on potential need. School sites are selected and facilities are planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.

2. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keaau Elementary School. If one of the Hawaiian Paradise Park (HPP) sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

We appreciate your input for this project.

Very truly yours,

Gordon Matsuoaka
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta

From: Melaine Lau
16 R II 6407
Keena, HI 96749
Date: 3-23-94

SEND COPIES TO
APPROPRIATE PARTIES

TO: JOHN WAHEE, Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

STEPHEN K. YAMASHIRO, Mayor
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

REGARDING: DEIS Keaau II Elementary School, Puna, Hawaii
Dear Governor Waihee and Mayor Yamashiro,

This is to request land purchase for future schools and parks in the subdivisions NOW. We need NEIGHBORHOOD schools and parks for our children. This will save bus trips. It will save our children and families time wasted on long, dangerous bus rides and commutes. Families can support their schools and parks. Kids can ride their bikes.

- IF THE SITES NEEDED ARE BOUGHT NOW,
- WE CAN ASSEMBLE SITES IN GOOD LOCATIONS IN OUR SUBDIVISION AT LOW COST.
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 - NO ONE'S HOME WILL NEED TO BE CONDEMNED.
 - IF THE GOVERNMENT COMES BACK IN 5 OR 10 OR 20 YEARS TO CONDEMN HOMES WE WILL REMEMBER THAT WE ASKED YOU TO DO THIS IN 1994 WHEN IT WAS STILL INEXPENSIVE AND NO HOMES NEEDED TO BE CONDEMNED.

I live in Subdivision 16 R II 6407 subdivision. It has (a) 100 lots. When there is one house per lot, with three people average per house, there will be (a x 3 = (b)) 300 people. We need an elementary school for about every 5,000 people, ten acres each plus a ten-acre park next door. So, our subdivision needs (b ÷ 5,000 x 20 = (c)) 1.25 acres of land for park and elementary school complexes. Intermediate and high school complexes, about forty acres each, are needed for about every 10,000 to 15,000 people, so we need about (c ÷ (1)) 1.25 acres of land for intermediate and high schools. We (do/do not) need to share facilities with neighbor subdivisions.

We need to set aside another three acres of county parks for every thousand people, in addition to the parks by the elementary schools. That is (b ÷ 1000 x 3 = (e)) 0.9 more acres for park. So altogether we need to set aside about (c + d + e = (f)) 3.35 acres. Our subdivision has (g) 1.25 acres reserved for public facilities, so (f - g = (h)) 2.1 acres need to be bought in the right configuration. Right now, vacant land in my subdivision costs about (i) \$ 25,000 per acre, so it would cost about (h x i = (j)) \$ 52,500 to assemble what we need. If we don't need it, we can always sell it later. If we do need it, and don't have it, it will cost ten times or more plus my house or a neighbor's would have to be condemned.

IT IS YOUR JOB TO MANAGE OUR TAX MONEY WISELY AND TO PLAN FOR OUR CHILDREN'S FUTURE HEALTH, SAFETY, EDUCATION AND OPPORTUNITIES. PLEASE PLAN NOW.

Sincerely,
Melaine Lau



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 115, HONOLULU, HAWAII 96810

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UREBASAKI
DEPUTY COMPTROLLER
LETTER NO. (P) 1430.4

MAY 17 1994

Ms. Mitsuko Lau
HCR II 6407
Keaau, Hawaii 96749

Dear Ms. Lau:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 23, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to providing school facilities based on projected build-out of subdivision developments, the Department of Education (DOE) is not in a financial position to build school facilities based on potential need. School sites are selected and facilities are planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.
2. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keaau Elementary School. If one of the Hawaiian Paradise Park (HPP) sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

We appreciate your input for this project.

Very truly yours,
Gordon Matsujoka
GORDON MATSUJOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta

From: David Taylor
Box 654
Hilo, HI, 96721
Date: 3-23-94

194

SEND COPIES TO
APPROPRIATE PARTIES

TO: JOHN WAIHEE, Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

STEPHEN K. YAMASHIRO, Mayor
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

REGARDING: DEIS Keaau II Elementary School, Puna, Hawaii

Dear Governor Waihee and Mayor Yamashiro,

This is to request land purchase for future schools and parks in the subdivisions NOW. We need NEIGHBORHOOD schools and parks for our children. This will save bus trips. It will save our children and families time wasted on long, dangerous bus rides and commutes. Families can support their schools and parks. Kids can ride their bikes.

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- NO ONE'S HOME WILL NEED TO BE CONDEMNED.
- IF THE GOVERNMENT COMES BACK IN 5 OR 10 OR 20 YEARS TO CONDEMN HOMES WE WILL REMEMBER THAT WE ASKED YOU TO DO THIS IN 1994 WHEN IT WAS STILL INEXPENSIVE AND NO HOMES NEEDED TO BE CONDEMNED.

I live in Hesperian Acres subdivision.
It has 3444 lots. When there is one house per lot, with three people average per house, there will be 11,832 people. We need an elementary school for about every 5,000 people, ten acres each plus a ten-acre park next door. So, our subdivision needs 47-33 acres of land for park and elementary school complexes. Intermediate and high school complexes, about forty acres each, are needed for about every 10,000 to 15,000 people, so we need about 47-33 acres of land for intermediate and high schools. We (do/do not) need to share facilities with neighbor subdivisions.

We need to set aside another three acres of county parks for every thousand people, in addition to the parks by the elementary schools. That is 35.5 more acres for park. So altogether we need to set aside about 130.2 acres. Our subdivision has 9 acres reserved for public facilities, so 121.2 acres need to be bought in the right configuration. Right now, vacant land in my subdivision costs about \$ 7000 per acre, so it would cost about \$ 848,400 to assemble what we need. It will cost ten times or more in a few years and my house or my neighbor's houses will have to be condemned.

IT IS YOUR JOB TO MANAGE OUR TAX MONEY WISELY AND TO PLAN FOR OUR CHILDREN'S FUTURE HEALTH, SAFETY, EDUCATION AND OPPORTUNITIES. PLEASE PLAN NOW.

Sincerely,
David C. Taylor



DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96810

MAY 17 1994

Mr. David Taylor
Box 654
Hilo, Hawaii 96721

Dear Mr. Taylor:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 23, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to providing school facilities based on projected build-out of subdivision developments, the Department of Education (DOE) is not in a financial position to build school facilities based on potential need. School sites are selected and facilities are planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.

2. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keaau Elementary School. If one of the Hawaiian Paradise Park (HPP) sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

We appreciate your input for this project.

Very truly yours,
Gordon Matsuoaka
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UHEBASAMU
DEPUTY COMPTROLLER
(P) 1429.4
LETTER NO.

98

From: Kristen Macdonald
PO Box 797
Pahoa HI 96778
Date: March 23, 1994

SEND COPIES TO
APPROPRIATE PARTIES

TO: JOHN WAIHEE, Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

STEPHEN K. YAMASHIRO, Mayor
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

REGARDING: DEIS Keauu II Elementary School, Puna, Hawaii

Dear Governor Waihee and Mayor Yamashiro,

This is to request land purchase for future schools and parks in the subdivisions NOW. We need NEIGHBORHOOD schools and parks for our children. This will save bus trips. It will save our children and families time wasted on long, dangerous bus rides and commutes. Families can support their schools and parks. Kids can ride their bikes.

- IF THE SITES NEEDED ARE BOUGHT NOW.
- WE CAN ASSEMBLE SITES IN GOOD LOCATIONS IN OUR SUBDIVISION AT LOW COST.
- THEY CAN BE CENTRALLY LOCATED SO WATER CAN SERVE MANY PUBLIC FACILITIES.
- NO ONE'S HOME WILL NEED TO BE CONDEMNED.
- IF THE GOVERNMENT COMES BACK IN 5 OR 10 OR 20 YEARS TO CONDEMN HOMES WE WILL REMEMBER THAT WE ASKED YOU TO DO THIS IN 1994 WHEN IT WAS STILL INEXPENSIVE AND NO HOMES NEEDED TO BE CONDEMNED.

I live in Kalapana Black Sand subdivision. It has 918 lots. When there is one house per lot, with three people average per house, there will be 2,754 people. We need an elementary school for about every 5,000 people, ten acres each plus a ten-acre park next door. So, our subdivision needs 11.02 acres of land for park and elementary school complexes. Intermediate and high school complexes, about forty acres each, are needed for about every 10,000 to 15,000 people, so we need about 11.02 acres of land for intermediate and high schools. We do (do not) need to share facilities with neighbor subdivisions.

We need to set aside another three acres of county parks for every thousand people, in addition to the parks by the elementary schools. That is 8.3 more acres for park. So altogether we need to set aside about 30.3 acres. Our subdivision has 18 acres reserved for public facilities, so 30.12 acres need to be bought in the right configuration. Right now, vacant land in my subdivision costs about \$ 27,150 per acre, so it would cost about \$ 835,830 to assemble what we need. It will cost ten times or more in a few years and my house or my neighbors' houses will have to be condemned.

IT IS YOUR JOB TO MANAGE OUR TAX MONEY WISELY AND TO PLAN FOR OUR CHILDREN'S FUTURE HEALTH, SAFETY, EDUCATION AND OPPORTUNITIES. PLEASE PLAN NOW.

Sincerely,
Kristen Macdonald



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 115, HONOLULU, HAWAII 96819

MAY 17 1994

Ms. Kristen Macdonald
P. O. Box 797
Pahoa, Hawaii 96778
Dear Ms. Macdonald:

Subject: Keauu II Elementary School
EIS Public Review Phase

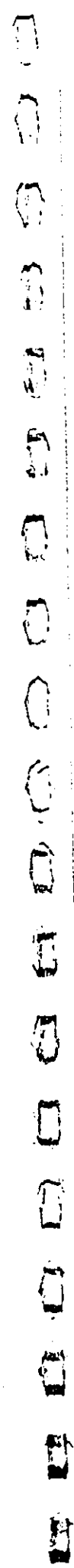
Thank you for your March 23, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to providing school facilities based on projected build-out of subdivision developments, the Department of Education (DOE) is not in a financial position to build school facilities based on potential need. School sites are selected and facilities are planned and constructed on a current-need basis. Generally, this means that planning a new school begins when an existing school reaches its design enrollment.
2. The scope of this study which was set by the DOE is to conduct a site selection study/EIS for an elementary school to replace the existing Keauu Elementary School. If one of the Hawaiian Paradise Park (HPP) sites is not selected now and HPP continues to grow as you mentioned, the DOE will consider having the next elementary school serving only the HPP area.

We appreciate your input for this project.

Very truly yours,
Gordon Matsuoaka
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta



Stephen K. Yamashiro
Mayor



SEND COPIES TO
APPROPRIATE PARTIES
Donna Fay, K. K. Kooali
Chief Engineer
Riley W. Seakoh
Deputy Chief Engineer
24 MAY 29 1994

County of Hawaii
DEPARTMENT OF PUBLIC WORKS
35 Anapala Street, Room 201 • Hilo, Hawaii 96720-1372
(808) 941-8311 • Fax: (808) 948-7118

March 28, 1994

HONORABLE JOHN MAIHEE GOVERNOR
STATE OF HAWAII
C/O OFFICE OF ENVIRONMENTAL QUALITY CONTROL
220 SOUTH KING STREET FOURTH FLOOR
HONOLULU HI 96813

SUBJECT: KEAAU II ELEMENTARY SCHOOL - DRAFT EIS

The Department of Public Works has reviewed the subject document and we have the following comments:

- A. TRAFFIC DIVISION**
- Off site improvements including street lights, traffic signals, road widening for channelization, signing and striping should be considered for each location.
 - Provide sufficient storage for vehicles exiting school grounds to alleviate stacking of cars on main highway.
 - Sites B and C will require improvements to Kaloli Drive. Kaloli and HWY 130 should be channelized.
 - Sites D, E, and F which are near Keasu School may add to traffic congestion.
- B. ENGINEERING DIVISION**
- Pick up and drop off areas for students should be provided within the school property and not along the public roadway.
 - Buildings shall conform to all requirements of code and statutes pertaining to building construction.



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 116, HONOLULU, HAWAII 96810

MAY 9 1994

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

Dear Mr. Kuba:

Subject: Keauu II Elementary School
EIS Public Review Phase

Thank you for your March 28, 1994 comments on the subject project. Our responses to your comments are as follows:

- Traffic Division**
 - As noted in Section 7.2.3, Traffic, on Page 7-3 in the draft EIS, appropriate traffic controls such as signs, crosswalks, barriers, or lights will be incorporated in the design of the school. Off-site improvements including street lights, traffic signals, road widening for channelization, signing and striping will be taken into consideration and provided based on the needs and characteristics of the final selected site.
 - Sufficient storage for vehicles exiting the school grounds will be provided during the design phase after the school site has been selected.
 - Sites B and C within Hawaiian Paradise Park are serviced by private roads which are open to the public. We understand that improvements to Kaloli Drive refers to shoulder improvements and sight-line improvements necessitated by vertical curves along the road. We also understand that the recommendation is for improvements along the length of Kaloli Drive from Highway 130 to the school sites. With regard to the channelization of Highway 130 and Kaloli Drive, the recommendation refers to left turn storage lanes on both

ROBERT P. TANUSHI
COMPTROLLER
LLOYD LUKERASAMI
DEPUTY COMPTROLLER
LETTER NO. (P) 1362.4

Letter to Governor John Waihee
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March 28, 1994

Mr. Galen M. Kuba
Page 2

Ltr. No. (P)1362.4

3. All development generated runoff shall be disposed of on-site and shall not be directed toward any adjacent properties.

4. Driveway and interior roadway designs shall utilize the turning path for the bus design vehicle as a minimum.

Should there be any questions, please contact Stanley Takemura at 961-8327.



GALEN M. KUBA, Acting Division Chief
Engineering Division

SRtbyf

cc: Traffic Division

roadways at their intersection point. We will note these recommendations and consider them in our final report. If these sites are selected, these improvements will be reviewed further and implemented after a more detailed traffic study is done.

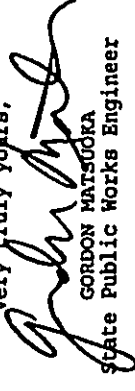
d. We acknowledge that the school development will inevitably increase vehicular traffic on the access roads surrounding the selected site. Notably, the accessibility of each candidate site and the adequacy of the roads serving each site were carefully evaluated in the site selection process. It is also stated that a more detailed traffic assessment will be conducted and specific mitigation measures identified when the final site is selected.

2. Engineering Division

- a. On-site improvements including a provision on pick-up and drop-off areas within the school property will be provided during the design phase of the selected site.
- b. Buildings will conform to all required codes and statutes.
- c. A statement will be added to the final EIS in Section 7.2.1 on storm water and drainage to clarify that all development generated runoff will be disposed of on-site and will not be directed towards any adjacent properties.
- d. The EIS will be revised to state that the driveway and interior roadway designs will utilize the turning radius needed for buses.

We appreciate your input for this project.

Very truly yours,



GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta

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JOHN WARDEN
CONTINUED



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96849

ROBERT P. TANUSHI
COMPTROLLER
LLOYD I. UREBASAKI
DEPUTY COMPTROLLER

LETTER NO. (P) 1362.4

MAY 9 1994

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

Dear Mr. Kuba:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 28, 1994 comments on the subject project. Our responses to your comments are as follows:

1. Traffic Division

- a. As noted in Section 7.2.3, Traffic, on Page 7-3 in the draft EIS, appropriate traffic controls such as signs, crosswalks, barriers, or lights will be incorporated in the design of the school. Off-site improvements including street lights, traffic signals, road widening for channelization, signing and striping will be taken into consideration and provided based on the needs and characteristics of the final selected site.
- b. Sufficient storage for vehicles exiting the school grounds will be provided during the design phase after the school site has been selected.
- c. Sites B and C within Hawaiian Paradise Park are serviced by private roads which are open to the public. We understand that improvements to Kaloli Drive refers to shoulder improvements and sight-line improvements necessitated by vertical curves along the road. We also understand that the recommendation is for improvements along the length of Kaloli Drive from Highway 130 to the school sites. With regard to the channelization of Highway 130 and Kaloli Drive, the recommendation refers to left turn storage lanes on both

Mr. Galen M. Kuba
Page 2

Ltr. No. (P) 1362.4

roadways at their intersection point. We will note these recommendations and consider them in our final report. If these sites are selected, these improvements will be reviewed further and implemented after a more detailed traffic study is done.

- d. We acknowledge that the school development will inevitably increase vehicular traffic on the access roads surrounding the selected site. Notably, the accessibility of each candidate site and the adequacy of the roads serving each site were carefully evaluated in the site selection process. It is also stated that a more detailed traffic assessment will be conducted and specific mitigation measures identified when the final site is selected.

2. Engineering Division

- a. On-site improvements including a provision on pick-up and drop-off areas within the school property will be provided during the design phase of the selected site.
- b. Buildings will conform to all required codes and statutes.
- c. A statement will be added to the final EIS in Section 7.2.1 on storm water and drainage to clarify that all development generated runoff will be disposed of on-site and will not be directed towards any adjacent properties.
- d. The EIS will be revised to state that the driveway and interior roadway designs will utilize the turning radius needed for buses.

We appreciate your input for this project.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta

SEND COPIES TO
APPROPRIATE PARTIES

Tracey E. and Keum Soon Lauder

Post Office Drawer "D", Kurtistown, Hawaii, 96760

Phone: 808-966-6686

28 March 1994

94 MAR 29 PM 12

MAY 11 1994



DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
STATE OF HAWAII
P. O. BOX 111, HONOLULU, HAWAII 96818

LETTER NO. (P)1357.4

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UMEBASAMI
DEPUTY COMPTROLLER

MAY 9 1994

Mr. Tracey E. Lauder
Post Office Drawer "D"
Kurtistown, Hawaii 96760

Dear Mr. Lauder:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 28, 1994 letter regarding the subject project. Our responses to your comments are as follows:

1. With regard to vehicular traffic around Keaau, the January 1994 draft EIS in Section 7.2.3 on Traffic acknowledges that the school development will inevitably increase vehicular traffic on the access roads surrounding the selected site. The accessibility of each candidate site and the adequacy of the roads serving each site are carefully evaluated in the site selection process. It is also stated that a more detailed traffic assessment will be conducted and specific mitigation measures identified when the final site is selected.
2. Your comments regarding Site A fronting the Volcano Highway and Kurtistown Park have been noted and will be taken into consideration during the final site selection process.
3. With regard to Sites B and C within the subdivision of Hawaiian Paradise Park, both sites will continue to be considered as potential school sites for the purposes of this site selection process. Cost considerations are part of the criteria for site suitability.
4. With regard to Sites D and F, appropriate setbacks from Highway 130 will be established to address safety and other planning concerns. The proximity of Keaau Town is not viewed as positive or negative in the site selection process.

THIS IS A MULTI-ADDRESSEE LETTER: GOVERNOR STATE OF HAWAII, OFFICE OF ENVIRONMENTAL QUALITY CONTROL: Certified Mail P 249-710-380; MR. RALPH MORITA, DAGS: Certified Mail # P 249-710-381; MR. GEORGE ATTA, GROUP 70, INTERNATIONAL, Inc.: CERTIFIED MAIL P 249-710-382, all return receipt requested.

ALoha Governor, Mr. Morita and Mr. Atta,

First and foremost we are here to HELP and we realize it is not going to be an easy task, as already various factions within the community have chosen sides for this and or that as to the location of the new school.

During the past three (3) years while pursuing this project and studying alternate routes to eliminate the vehicular traffic around the village of Keaau I find the most negative thing about placing ANY new school on the makai side of Highway 130 is the volume of traffic utilizing this highway which would cause teachers, students, and other workers to be going against the Keaau/Hilo bound traffic. Some supporters of a school makai of Highway 130, would say they are part of the problem NOW, true.

SITE "A" is not conducive due to it's location fronting the Volcano Highway right on the mauka side of an extremely downhill curve in the highway which has been the scene of various traffic accidents on the boudry of Kurtistown Park. Kurtistown Park is not large enough to handle the student population of the new school and the topography of the site is to extreme that to make it suitable for a school would increase the cost of site preparation prohibitive. (Our recent 7 acre site bulldozing cost \$32,000.00 and we live just down the hill from the site (3/4 mile). Also various old time residence are not favorable to the school being located here.

SITES #B & C" being located within HAWAIIAN PARADISE PARK is not plausible as it may set a legal presence for other sub-division within the STATE OF HAWAII, it is very commendable to donate the land, but it would be cost prohibitive and would increase vehicular traffic on Highway 130.

Residence and Nursery located: 17-898 Ola'a Road
Kurtistown, Hawaii 96760



Tracey E. and Keum Soon Lauder
Post Office Drawer "D", Kurtistown, Hawaii, 96760

Phone: 808-966-6686

28 March 1994

Page 2, this date letter KEAAU II ELEMENTARY SCHOOL SITE DEIS
and SITE SELECTION STUDY, continued.

SITES "D" AND "F" are to close to Highway 130 and to the
center of Keaau town center.

My suggestion for site "E" is due to the fact it fronts on the
OLD VOLCANO HIGHWAY, electric, telephone and water are in close
proximity to the site and the present roadway can be brought up
to state and county standards at a minimal cost, also the old
road could be accessed into the HILO bound lane of the present
Volcano Highway and the students arriving from HAWAIIAN PARADISE
PARK/ORCHIDLAND bus can turn left onto the old Volcano Road in
Kurtistown at the intersection of Highway 130 and the old Volcano
Road which is controlled by a traffic signal light.

During a past public presentation by DOE and Group 70 International,
Inc. at the present Keaau School someone questioned me, "WHO DO YOU
REPRESENT", as an elected precinct Chairman of the Democratic
Party of the State of Hawaii and the County Of Hawaii I represent
the various members of the Democratic 7th Precinct, 3d District
of the County of Hawaii, also we managed to have the Hawaii
County and State of Hawaii Democratic Party endores resolutions
to have this school and a High School funded for this are as
evidenced by House of Representatives, H. C. R. 162-90 of the
15th Legislature 1990, State of Hawaii and The Senate, S. C. R. 31,
of the 17th Legislature, 1993, State of Hawaii submit these
resolutions.

As I have stated in all past presentations and/or comments, we are
here to help! I know it is going to be hard to come to a
selection to satisfy everybody, so call me if you need HELP?????

Tracey E. Lauder
TRACEY E. LAUDER

Residence and Nursery located: 17-898 Ola'a Road
Kurtistown, Hawaii 96760

Mr. Tracey E. Lauder
Page 2

Ltr. No. (P)1357.4

5. Your suggestions regarding Site E have been noted.
Traffic access and circulation issues will be
addressed in greater detail once the school site has
been selected.

6. Your comments regarding your position as elected
precinct Chairman of the Democratic Party of the
State of Hawaii have been noted.

We appreciate your input for this project.

Very truly yours,
John M. Gordon
GORDON MATSUOKA
State Public Works Engineer

AY:jk
CC: Mr. George Atta, Group 70 International, Inc.



University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road • Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

March 31, 1994
RE:0645

Governor John Waihee
c/o Office of Environmental Quality Control
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

Dear Governor Waihee:

Draft Environmental Impact Statement
Keaau II Elementary School
Site Selection Study
Puna, Hawaii

The Department of Education (DOE) proposes to construct a new elementary school in Keaau to serve the existing Keaau Elementary and Intermediate School service area. The proposed elementary school facilities will accommodate 945 students at full build-out. Classrooms, cafeteria, library and administrative spaces will be programmed for the new school. Renovation and expansion of the existing school would not be feasible due to the age of some structures and lack of available building area needed to accommodate the continued and projected growth in enrollment. Based on criteria established by the DOE, the site selection study has proposed six candidate sites.

We have reviewed the Draft Environmental Impact Statement (EIS) with the assistance of Jon Matsuka, Social Work; Peter Flachsbart, Urban and Regional Planning; Eileen O'Hara-Weir, Agriculture and Resource Economics; and Heather Keevill of the Environmental Center.

Traffic

Traffic congestion on Highways 130 and 11 is currently severe particularly during "rush" hours. This is a serious problem with significant safety concerns particularly with regard to increased use by elementary school aged children. A detailed traffic analysis and mitigation plan will be needed to reduce impacts of any new school served by these

An Equal Opportunity/Affirmative Action Institution

Governor John Waihee
March 31, 1994
Page 2

highways. Since many parents do not choose to have young children utilize bus transportation, elementary schools in particular increase morning and afternoon traffic. Morning traffic on Highway 130 has increased significantly in recent years. Until a final and binding decision to build the proposed Keaau by-pass is made, site selection for the elementary school should not be made on the assumption that the by-pass will be built.

Site Selection

The site selection process for Keaau school should not be done without considering other plans to construct new schools in the district. In 1991, half of the elementary school students lived in the Hawaiian Paradise Park subdivision. Two of the proposed sites are located on Paradise Park land. A 2000 lot subdivision is proposed for Shipman land in Keaau and three school sites are located on nearby Shipman land. If the elementary school is built on Paradise Park land instead of on Shipman land, and the proposed 2,000 lot subdivision is approved, will yet another elementary school be needed to service the HPP population? A letter from William Moore Planning indicates that a high school facility is also needed. It would appear that a long term public school needs assessment plan should be undertaken for the Puna district that will survey the sites available and desirable for locating schools.

Page 5-1 describes the site evaluation standards for the size of the parcel to be selected. "Good" size is said to be the minimum size of 8 usable acres with a 4 acre park located on adjacent land to be used to meet the school's playground requirements. While it is clear that school playgrounds often serve as neighborhood playgrounds, the opposite is not necessarily true. The designation of park lands is evaluated and determined on the basis of planning to meet community needs, not the needs of the DOE. If a school uses that park during school hours, the park is no longer available to the community. Children begin elementary school at the age of five. It does not seem appropriate to exclude children under five, or any other person, from park use during school hours. In addition, by limiting the site to 8 acres, there would be less flexibility in locating the facilities, and potential for future expansion would be eliminated. While it is encouraging to know that the State is trying to be efficient with the use of tax dollars, a slightly larger minimum parcel should be required to receive a "good" rating as opposed to a "fair" rating. Park land should not be usurped for DOE needs. Justification for such usurpation seems particularly weak given the availability of suitable lands in the Keaau-Puna area.

Site A. Site A is the least desirable of all the proposed sites for a number of reasons. As mentioned above, it is our contention that an eight acre parcel is too small given that 12 acres are needed for an elementary school. The fact that there is an adjacent park does not sufficiently remedy the shortage of land. In addition, page 6-29 shows that the parcel is rated poor in 14 different categories; almost twice as many poor ratings as any

Governor John Waihee
March 31, 1994
Page 3

other site. Some of the more important conditions considered "poor" characteristics for an elementary school include the slope of the land, soil conditions for the required septic tank, drainage, pedestrian access and safety, automobile access, traffic safety, air quality and visible signs of hazardous waste on the site or on adjacent property. The safety issues alone would appear to preclude further consideration of site A.

Sites B and C. Both sites B and C are located in Hawaiian Paradise Park (HPP), and both have similar strengths and weaknesses. Most of the roads within the subdivision are private and are maintained through assessments to the lot owners. Hence traffic and pedestrian (particularly school children) safety become key concerns. The final EIS should discuss what roadway modifications will be required to assure public safety and the costs associated with these upgrades.

One half to two thirds of HPP is in the Waieka school district and the rest is in the Keonipoko district. This situation is relevant when considering the area has no water supply. Residents use individual rain water catchment systems to supply water. If county water were supplied to a school in HPP, then the subdivision would also benefit which would result in an equity issue since other subdivisions have not been granted that privilege. Bringing in county water would result in additional costs as would the need to upgrade the road and construct turn lanes in both directions from the highway.

Sites D, E, and F. All three sites are located on Shipman land and have access to county water. As a result of the close proximity of the sites, the environmental conditions are similar for all three. Of all six sites, site F appears to be one of the better locations based on the established criteria and rating scale. Slope, infrastructure requirements, and safety criteria are all rated good for elementary school construction.

Social Impacts

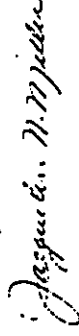
Letters received during the preparation of the draft EIS suggest a great deal of community concern over the location of the elementary school. More attention should be given in the final EIS to the social impacts of the location decision. As noted above, there are advantages and disadvantages to locating the school on Shipman land versus HPP land. While there is a section on Social and Economic characteristics, the final EIS should more clearly address the social and political considerations associated with the location of Keaau II Elementary School.

It would be helpful if future site selection studies incorporated a recommendation of the preferred site based on the information presented in the Draft EIS. Will a Supplemental Statement be prepared to address the more site specific issues when a final site is selected?

Governor John Waihee
March 31, 1994
Page 4

Thank you for the opportunity to review this document. We hope our comments are helpful. If you have any questions, please call me at 956-7361.

Sincerely,



Jacquelin N. Miller
Associate Environmental Coordinator

cc: DAGS
Group 70 International, Inc.
Roger Fujioka
Jon Matsuoka
Peter Fiachsbart
Eileen O'Hara-Weir
Heather Keavill

JOHN WAIKOE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96811

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD I. UHEBASAMI
DEPUTY COMPTROLLER

LETTER NO. (P) 1469-4

Ms. Jacquelin N. Miller
Page 2
Ltr. No. (P) 1469-4

MAY 25 1994

Ms. Jacquelin N. Miller
Associate Environmental Coordinator
Environmental Center, Crawford 317
University of Hawaii at Manoa
2550 Campus Road
Honolulu, Hawaii 96822

Dear Ms. Miller:

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your March 31, 1994 letter regarding the January 1994 draft EIS for the proposed Keaau II Elementary School. We appreciate your observations and concerns and will consider them in our assessments. With reference to the specific comments in your letter, we offer the following responses:

1. With regard to a traffic analysis and mitigation plan, a more detailed study will be conducted to assess the conditions of the final selected site. This site selection study does not assume that the proposed by-pass road will be built. As noted on Page 3-7, this study acknowledges that the State is studying the feasibility of a Keaau by-pass road and a subsequent graphic depicts the State's two proposed by-pass road alignments relative to those sites closest in proximity.
2. With regard to consideration of other plans to construct new schools in the district, the scope of this study is limited to the site selection for the proposed elementary school within the existing school service area. The construction of a high school is not a part of this study.

In response to the creation of additional school service areas, the DOE is aware of the need for more facilities and will continue to plan for additional

schools in this area. Redistricting the existing service areas within Puna is not a part of this project.

3. With regard to a long term public school needs assessment for the Puna district, ideally the DOE would like to reserve sites for future needs within multiple school districts. However, the DOE is not in a financial position to build school facilities or acquire vacant sites based on potential need. School sites are selected and facilities are planned and constructed based on current needs within the existing district. Generally, this means that planning for a new school begins when an existing school student population exceeds design capacity by 400 students. It is not the practice of the DOE to plan or build school facilities based on the potential for residential development. Some subdivisions may not develop to their full potential for 30 to 40 years. Vacant reserved land will also create a maintenance and liability problem for the DOE.

With regard to a long-term plan for the Puna district public schools, it should be stated that the discussion and evaluation of broader issues relating to long term school facilities planning is an ongoing process.

4. With regard to the parcel size, a 12-acre school site (maximum) with no adjacent County park is being rated equal to an 8-acre school site next to a 4-acre County park because of funding considerations. It is noted the use of a public park by a public elementary school is normally a permitted use under an agreement with the County parks office, whereby the school has priority use of the park during school hours. Therefore, the DOE does not usurp County park land, rather it is a joint use agreement between the DOE and the County.

5. Your comments regarding site preferences are noted and will be taken into consideration during the final site selection process. The draft and final environmental impact statements discuss the roadway modifications required and reflect the costs associated with mitigation measures.

Ms. Jacquelin N. Miller
Page 3

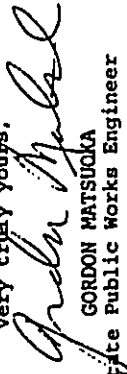
Ltr. No. (P)1469.4

6. Your comments about the social and political considerations of the location decision are noted. We will include an expanded discussion of these issues in the final EIS.

7. Finally additional studies will be conducted as needed. However, a supplemental EIS is not being considered at this time.

We appreciate your input for this project. The final EIS will include the comments that have been made in this review period as well as our responses and revisions. We hope to complete the EIS process within the next two to three months and also look forward to the next phase of school development.

Very truly yours,


GORDON MATSUOKA
State Public Works Engineer

RM:jk
cc: Mr. George Atta

Merita



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Office
P.O. Box 50167
Honolulu, Hawaii 96850



JOHN WAMBE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 111, HONOLULU, HAWAII 96810

ROBERT P. TAKUSHI
COMPTROLLER
LLOYD LINERASANI
DEPUTY COMPTROLLER
(P) 1332.4
LETTER NO.

In Reply Refer To: AAP

APR 01 1994

Mr. Ralph Morita
Department of Accounting and General Services
P. O. Box 119
Honolulu, Hawaii 96810

MAY 5 1994

Mr. Robert P. Smith
Field Supervisor
Pacific Islands Office
Fish and Wildlife Service
U. S. Department of Interior
P. O. Box 50167
Honolulu, Hawaii 96850

Re: Draft Environmental Impact Statement (EIS) and Site Selection Study for Keaau II
Elementary School Puna District, Hawaii, Hawaii
DAGS Job No. 11-16-6084

Dear Mr. Morita:

The U.S. Fish and Wildlife Service (Service) has reviewed the January 1994 Draft Environmental Impact Statement (EIS) and Site Selection Study for the Keaau II Elementary School proposed in the Puna District on the island of Hawaii, Hawaii. The proposed school will service 945 students and will occupy 8-12 acres of land. The Service offers the following comments for your review.

The six candidate sites lack wetlands and lie outside any designated flood hazard areas. The Hawaiian owl (*Asio flammeus sandwicensis*), the Hawaiian Hawk (*Buteo solitarius*), and the Newell's shearwater (*Puffinus auricularis newelli*) may transit through or forage on several candidate sites for the proposed action. Direct adverse impacts to the above species are not anticipated.

However, the Service recommends that proposed outside lights on the school building be shielded and aimed downward to minimize potential "fallout" (exhaustion and/or collision with structures brought on by attraction to and disorientation from bright lights) of Newell's shearwaters during their nesting season.

Based on the available information, the Service has no objections to the proposed elementary school. If you have any questions regarding this information, please contact Arlene Pangcelinan at (808)541-3441.

We appreciate the opportunity to provide these comments.

TO: DIRECTOR OF PUBLIC WORKS
DATE: 5/11/94
FROM: R.P. Smith
SUBJECT: Keaau II Elementary School EIS
APPROVED: [Signature]
DATE: 5/11/94
BY: [Signature]
REVIEWED: [Signature]
DATE: 5/11/94
BY: [Signature]

Sincerely,

[Signature of Robert P. Smith]

Robert P. Smith
Field Supervisor
Pacific Islands Office

Subject: Keaau II Elementary School
EIS Public Review Phase

Thank you for your April 1, 1994 comments regarding the subject project. Our responses to your comments are as follows:

1. Your statement verifying our assessment of wetlands and flood hazard districts is appreciated.
2. Your comment regarding the Hawaiian owl, the Hawaiian hawk, and the Newell's shearwater has been noted and will be included in the final EIS.
3. The EIS will be revised to include a statement that the proposed outside lights on the school building be shielded and aimed downward to minimize potential "fallout" of Newell's shearwater during their nesting season.

We appreciate your input for this project.

Very truly yours,

[Signature of Gordon Matsuoka]
GORDON MATSUOKA
State Public Works Engineer

AY:jk
cc: Mr. George Atta, Group 70 International, Inc.

11-16-6084-11

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

APPENDIX A

WHERE KEAAU SCHOOL ELEMENTARY STUDENTS LIVE (3/93)						
TEACHER	KEAAU	KURTISTOWN	PARADISE			TOTAL
			PARK	ORCHIDLAND	OTHER	
Adams	2		2			
Lehman	1	2	1	1	1	
PRE-SCHOOL	3	2	3	1	1	10
Greenhouse	2	9	11	4	0	
Mitsuyoshi	16	3	3	5		
Nishimurai, C.	13	5	7	2	0	
Rivera-Hiro	8	0	13	3	2	
KINDERGARTEN	39	17	34	14	2	106
Bartolome	3	2	16	3	2	
Gallipeau	13	3	10			
McAtee	7	2	14	2	2	
Tanaka	13	2	9	1	2	
GRADE 1	36	9	49	6	6	106
Bratton	5	3	9	5	1	
Mende	9	2	9	0	3	
Mimaki	9	1	11	0	3	
Miyashiro	8	2	10	3	1	
Tachibana	9	2	9	4	1	
GRADE 2	40	10	48	12	9	119
Asakura	8	4	12	2	1	
Harris	10	2	11	2	1	
Kagawa	7	1	12	4	4	
Lebel	5	9	12	2		
GRADE 3	30	16	47	10	6	109
Amasaki	11	6	10	2	2	
Ida	8	6	13	3		
Kushi	9	4	12	3	2	
Samson	4	6	17		2	
GRADE 4	32	22	52	8	6	120
Higa, J.	2	6	14	4	1	
Heintzman	10	5	10	1		
Masuda	9	3	13	2		
Yokota	6	9	8	2	2	
Yoshioka	3	6	15	2	1	
GRADE 5	30	29	60	11	4	134
TOTAL	210	105	293	62	34	704
% of Total	29.83	14.91	41.62	8.81	4.83	100.00

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APPENDIX B

KEAAU II ELEMENTARY SCHOOL
SITE SELECTION INFRASTRUCTURE EVALUATION

SITE A - KURTISTOWN (TMK: 3/1-7-03:017)

Soils

The soil type on this site is predominately Keaukaha extremely rocky muck (rKFD) with small areas of Olaa silty clay loam (Oac). Keaukaha soil cover over underlying pahoehoe lava is probably very shallow (less than 10 inches thick) with some rock outcrops. This type of soil is normally found in native forest.

Olaa soil is usually about two feet thick and overlays Aa lava. This soil was used for sugarcane.

Foundation problems should not be encountered due to the presence of underlying lava near the surface throughout the site.

Roadways

This site is adjacent to Highway 11 which is a major highway accommodating vehicular traffic between Hilo and the Hawaii Volcanoes National Park, a popular visitor destination. Consequently, roadway width and capacity should be more than adequate for the school.

Vehicular Access and Traffic Safety

A direct school driveway intersection with Highway 11 would be required because the site is adjacent to the highway without any other roads available to access from. The intersection would be located on the outside of the highway curve so sight distance appears adequate. However, the downhill grade for Hilo-bound traffic could encourage traffic speeds greater than the posted speed limit. In addition, major roads or highways would normally have higher posted speed limits than local or minor roads, and drivers would be accustomed to driving faster on such roads. Highway improvements to mitigate impacts on road capacity

and traffic safety may require highway widening to accommodate a left turn storage lane and possibly acceleration and deceleration lanes at the new intersection.

Pedestrian Access and Safety

Since the only pedestrian route to the school site would be along Highway 11, the anticipated greater vehicular traffic and speeds would make this site less safe for young elementary school students living nearby that may walk to school. Currently there are no walkways along the highway, and adding walkways just along the school frontage may not be sufficient for pedestrian safety. For students having to cross the highway, the sight distance on the inside of the highway curve may not be adequate.

Site Improvements

Keaukaha (rKFD) soils are normally found on undulating and rolling terrain with slopes ranging 6 to 20 percent. Olaa (OaC) soils occupy flatter areas of less than 10 percent. This site is relatively steep for an elementary school, requiring substantial grading to create flat areas for buildings and parking areas. The resulting steep slopes and stairs between terraces may create a less safe environment for the younger elementary school students. It also usually results in less useable area for recreation or other outdoor uses/functions.

Grading cost would be more expensive than the other sites. Some retaining walls can be anticipated. The soil may have to be stripped and stockpiled for use as topsoil to minimize any need for imported material.

Drainage

Although the soils are considered rapidly permeable, the steepness of the site is expected to cause an increase in the runoff generated onsite and the runoff would tend to flow offsite toward the highway and/or the existing adjacent park. Some drainage improvements may be required to handle runoff from adjacent properties. Erosion hazard is slight.

Water

The existing County water system available to service this potential school site is not capable of providing adequate fire flows that meet the County's water system standards of 2,000 gallons per minute over a two-hour duration with a residual pressure of 20 psi at the school site. Water service to the school site area is currently provided by a 6-inch water main along the highway and a 300,000 gallon reservoir with a spillway elevation of 860 feet. A new reservoir and 12-inch water main between said reservoir and the school site would have to be constructed to provide adequate fire protection.

Wastewater

Because there are no existing sewers or treatment plants to serve any of the potential school sites, the wastewater disposal method common to all sites would probably be an onsite treatment and disposal facility consisting of septic tanks and subsurface leaching systems. Although the soil is permeable the steeper slopes and smaller useable areas make this site the least suitable among the six sites for onsite wastewater treatment and disposal.

Power and Communication

There are existing power and telephone systems adjacent to the site along Highway 11 that appear adequate for the school.

SITE B - HAWAIIAN PARADISE PARK (TMK: 3/1-5-39-267)

Soils

The soil type is pahoehoe lava (rLW) with almost no soil covering to support vegetation. Consequently top soil would need to be imported for lawn, playground, and landscape areas.

Existing ground (lava) should provide solid foundation for buildings, roads, and parking areas.

Roadways

This site is located in the Hawaiian Paradise Park subdivision and is bordered on three sides by existing roads. Kaloli Drive, a paved two-lane road that intersects with Highway 130, would be the primary vehicular route to the school site. The other two side streets (25th and 26th) are minor roads, currently unpaved.

Kaloli Drive is one of the main roads serving Hawaiian Paradise Park, but it is not built to County standards and does not have sidewalks or walkways. Although Kaloli Drive does not meet County standards, this private road which is open to the public appears adequate for an elementary school site at the present, based on the roadway width and relatively light vehicular traffic. The two side streets bordering the school should be paved at least along the site boundary. As the Hawaiian Paradise Park subdivision matures and more vehicular traffic is generated in the future, road improvements to upgrade Kaloli Drive to County standards for a collector street with sidewalks or walkways may be warranted.

Vehicular Access and Traffic Safety

Primary vehicular access to the school could be provided by driveways directly from Kaloli Drive. Sight distances appear satisfactory. Secondary access could be added by driveways on 25th and 26th Streets. Due to straight roads and relatively light vehicular traffic typical of interior subdivision roads, traffic safety is considered good.

Pedestrian Access and Safety

Students living nearby can walk to school along the three roads bordering the school. Although there are no sidewalks or paved walkways, there is room in the shoulder areas outside of the road pavement. Since vehicular traffic is relatively light and there are no major roads or highways near the school site pedestrian safety is considered good.

Site Improvements

This site is very flat and grading to provide level building pads and parking areas should be at a minimum. Trenching for utilities at this location would be expensive and site improvement cost would include imported borrow or top soil for grassing and landscaping.

Drainage

Onsite rain runoff is expected to be contained within the site without significant drainage improvements because of the flat terrain and very permeable soil. Runoff from areas outside the school site, if any, is not likely to cause any problems. There is no erosion hazard.

Water

There is no public or private water system in Hawaiian Paradise Park presently. Water for current residents in the subdivision is primarily obtained by individual water catchment systems. An exception are the homes along Highway 130 that connect to the County's water main located in the highway right-of-way. Studies have been performed to investigate water source development within Hawaiian Paradise Park, but on a smaller scale than is needed for the proposed school.

The nearest municipal water system is a 12-inch main located along Highway 130, a distance of approximately 3,600 feet from the school site. To provide adequate water service, a 12-inch main would have to be extended from the existing main. Although the installation of this 12-inch main would satisfy the school's domestic demand, fire protection may not be adequate because the County's water reservoir for this service area is located about seven miles away with an 8-inch transmission main segment in between. To provide adequate fire flows the transmission system will need to be improved by adding parallel lines along Highway 130 at critical locations between Keauu Town and Hawaiian Paradise Park.

Wastewater

Onsite treatment and disposal utilizing septic tanks and leaching systems would technically work on this site because of the permeable subsurface and flat terrain. However, the State Department of Health may be concerned about possible adverse impacts onsite disposal methods would have on the underlying potable ground water aquifer. Studies have been conducted for Hawaiian Paradise Park to develop potable water wells within this subdivision. Consequently obtaining approval from the Department of Health for subsurface disposal, especially injection wells, may prove difficult at this site.

Power and Communication

There are existing power and telephone systems adjacent to the site along Kaloli Drive that appear adequate for the school.

SITE C - HAWAIIAN PARADISE PARK (TMK: 3/1-5-47-206)

Soils

Similar to Site B

Roadways

Similar to Site B, except the side roads are 14th Street and 15th Street and the site is about 1.4 miles further in from Highway 130.

Vehicular Access and Traffic Safety

Similar to Site B

Pedestrian Access and Safety

Similar to Site B

Site Improvements

Similar to Site B

Drainage

Similar to Site B

Water

Similar to Site B, except the new 12-inch main would be much longer, about 11,000 feet.

Wastewater

Similar to Site B

Power and Communication

Similar to Site B

SITE D - KEAAU TOWN (TMK: 3/1-6-03-08)

Soils

Soil types are Olaa (OaC) and Hilo (HoC) silty clay loam. Hilo soils are generally more than five feet thick while Olaa Soils are shallow, usually only about two feet thick overlaying Aa lava. There should be ample soil onsite for grassing and landscaping. The area has been used to grow sugarcane recently.

Foundation problems are not anticipated, but due to the varying soil depths some extent of foundation stabilization may be desirable.

Roadways

The school site is a short distance from Highway 130. There is an existing narrow paved road along one side of the site that runs somewhat parallel to the highway and then turns to converge with the highway at one end. This road is not adequate and would have to be widened or replaced with a new road to provide proper access to the school.

Vehicular Access and Traffic Safety

A new intersection for the school access road with Highway 130 would be needed. This intersection would be situated on the outside edge of the highway where sight distance seems satisfactory. Since Highway 130 is a major traffic route, intersection improvements required would include a left turn storage lane at a minimum. Acceleration and deceleration lanes may be required for traffic safety.

Pedestrian Access and Safety

The school access road should be built with sidewalks or paved walkways for the students living nearby that will walk to school. Highway 130 is not a safe road for elementary school students to cross due to the high traffic volume and speeds. However, an existing underpass

nearby could be utilized by students living across the highway from the school site. The underpass is not large enough to be used as a school vehicular access road but would be ideal for pedestrian traffic to avoid having young students crossing a major road at-grade.

Site Improvements

This site has slopes ranging from 5 to 10 percent, so some terracing would be required to create level building pads and flatter parking areas. However grading costs should be moderate because there is enough soil to work with before hitting bedrock.

Drainage

Rain runoff generated onsite is not expected to increase significantly. However some drainage improvements may be necessary to handle runoff from adjacent lands above the school site. The intercepted runoff would be routed through the school site toward Highway 130.

Water

Water service would be provided by a connection to the County's existing 16-inch main along Highway 130. A 12-inch main extended from this connection to the school would satisfy domestic demand and fire protection flow requirements.

Wastewater

Onsite treatment and disposal system utilizing septic tanks and subsurface disposal is anticipated at this site because the soil is considered permeable. There are no apparent conditions at this site that would preclude using this type of system.

Power and Communication

There are existing power and telephone systems along Highway 130 that appear adequate for the school. The required service would be extended the short distance to the school site.

SITE E - KEAAU TOWN (TMK: 3/1-6-03-11)

Soils

The soil type is Olaa extremely stony silty clay loam (OID) underlain by Aa lava. Soil cover is relatively shallow, about two feet thick and was probably used for growing sugarcane.

Foundations for buildings and pavement areas should be stable due to the underlying lava.

Roadways

This site is located next to Highway 11, but is situated at a much lower elevation that would preclude a direct access from the highway. Access from the closest existing road would be provided by constructing a new school access road from Mamalahoa Road. Although well used, it is doubtful that Mamalahoa Road meets current County road standards in regard to roadway width and traffic safety design. Mamalahoa Road is one of the main streets in Keaau Town, but it does not have sidewalks or paved walkways. The new access road should be built to County standards with sidewalks.

Vehicular Access and Traffic Safety

Mamalahoa Road has an intersection with Highway 11 near the school site. The road makes a sharp, almost 90 degrees, turn just before this intersection. Although sight distance is less than desirable, this condition may be currently acceptable because there are no traffic movement conflicts. Creating an intersection for a school access road at this sharp turn could be hazardous, because it would introduce conflicting traffic movements without adequate sight distances under existing conditions. Providing proper sight distances for this intersection would require clearing and possibly grading of the area between the intersection and the highway. Sight distance setbacks/easements would have to be established and the area maintained to assure traffic safety.

Pedestrian Access and Safety

Pedestrian access to the school would be primarily via the new access road. With adequate roadway width and sidewalks pedestrian safety should be satisfactory for students walking to school or being dropped off.

Site Improvements

The school site has a general slope of about 5 percent, so grading to create level building pads and flat parking lots will be required. Due to shallow soil cover, excavation in hard material can be anticipated in mass grading and trenching work.

Drainage

Offsite rain runoff is expected to flow into the school site because Highway 11 and the adjacent subdivision have embankments that slope downward toward the site. The offsite runoff and potential increase in runoff generated onsite would have to be handled by a drainage system. If the runoff increase cannot be retained onsite, it may have to be discharged onto adjacent property. There are no apparent drainage ways or systems to discharge into.

Water

Water service could be provided from the existing County 16-inch water main along Highway 11 or Mamalahoa Road. Domestic water demand and fire protection flow requirements would be easily satisfied by the existing water system.

Wastewater

Onsite treatment and disposal system utilizing septic tanks and subsurface disposal is anticipated at this site because the soil is considered permeable. There are no apparent conditions at this site that would preclude using this type of system.

Power and Communication

There are existing power and telephone systems adjacent to the site along Highway 11 that appear adequate for the school.

SITE F - KEAAU TOWN (TMK: 3/1-6-03-15)

Soils

Soils at this site are similar to Site No.4 with Olaa (OaC) and Hilo (HoC) silty clay loam.

Roadways

This site is adjacent to Highway 130 and is bordered on one side by a narrow private paved road that is presently restricted from public use. The private road would need to be improved to accommodate the increased traffic.

Vehicular Access and Traffic Safety

The existing intersection of the private road and Highway 130 has to be improved. Intersection improvements would include left turn storage lane and possibly acceleration and deceleration lanes.. Although this intersection is on the inside of the highway curve adequate sight distances can be obtained. School driveways should be connected to the private road rather than Highway 130 for traffic safety.

Pedestrian Access and Safety

Pedestrian access is good because the school can be accessed from several directions. However Highway 130 is not a safe road for elementary school students to cross due to the high traffic volume and speeds.

Site Improvements

The school site has slopes ranging from 1 to 8 percent, where the steeper slopes occur adjacent to Highway 130 and flattens away from the highway. Some grading will be required to create level building pads, however, grading should be moderate because there is enough soil to work with before hitting bedrock.

Drainage

Rain runoff generated onsite is not expected to increase significantly, and any increase that flows overland off the site should not create a problem. There is little offsite runoff to contend with, but runoff has to be diverted around buildings due to the steeper slopes next to the highway.

Water

Water service would be adequately provided by a connection to the County's existing 16-inch main along Highway 130. Both domestic demand and fire flow requirements would be satisfied.

Wastewater

Similar to D

Power and Communication

There are existing power and telephone systems adjacent to site along Highway 130 that appear adequate for the school.

ON-SITE DEVELOPMENT COSTS

Clearing

The cost for clearing and grubbing depends on several factors including access to the site, terrain, type of soil, ground cover/vegetation, and condition or previous use of the land. For this project the estimated cost for clearing and grubbing is \$5,000 per acre if the site factors are good, \$10,000 per acre if the site factors are fair and \$15,000 per acre if the site factors are considered poor.

Sites B and C are considered good because access to the site is available from at least three roads surrounding the sites; the terrain is level; although there are trees the root system is shallow; and there are no drainage/erosion problems to worry about. Sites D and F are considered fair because direct access is available from at least two sides; the terrain has a slope that is not steep; there are some large trees; and drainage/erosion control is a consideration. Sites A and E in comparison to the other sites are considered poor because access and egress is not good, primarily from one road; the site has some steep slopes; more large trees, especially Site A; and drainage and erosion control would be more difficult to accomplish at these two sites.

Site A

$$8.33 \text{ ac} \times \$15,000/\text{ac} = \$125,000$$

Site B

$$12.0 \text{ ac} \times \$5,000/\text{ac} = \$60,000$$

Site C

$$12.0 \text{ ac} \times \$5,000/\text{ac} = \$60,000$$

Site D

$$12.0 \text{ ac} \times \$10,000/\text{ac} = \$120,000$$

Site E

$$12.0 \text{ ac} \times \$15,000/\text{ac} = \$180,000$$

Site F

$$12.0 \text{ ac} \times \$10,000/\text{ac} = \$120,000$$

Grading

The cost for grading a site will vary depending primarily on the terrain and type of soil. Level areas have to be created for buildings and parking lots and some slope in the open areas is needed for proper drainage. Where these conditions are provided in steep areas there is usually a large surplus of excavated material that has to be hauled away. In flat areas, on the other hand, soil must be imported to provide enough slope for proper drainage and/or topsoil for lawns.

Sites A and D are relatively steep, resulting in large quantities of excavation and surplus material. Sites B and C are level with hard lava underneath shallow soils, consequently import borrow is needed to provide satisfactory finish grades and adequate soil for grassing and landscape.

Site A

$$\text{Excavation} = 55,258 \text{ cy} \times \$17/\text{cy} = \$939,000$$

$$\text{Fill} = 3,682 \text{ cy} \times \$6/\text{cy} = \$22,000$$

$$\text{Fine Grading} = 3.6 \text{ ac} \times \$10,000/\text{ac} = \$36,000$$

Site B

$$\text{Import Borrow} = 8,400 \text{ cy} \times \$20/\text{cy} = \$168,000$$

$$\text{Fine Grading} = 3.2 \text{ ac} \times \$10,000/\text{ac} = \$32,000$$

Site C

$$\text{Import Borrow} = 8,400 \text{ cy} \times \$20/\text{cy} = \$168,000$$

$$\text{Fine Grading} = 3.2 \text{ ac} \times \$10,000/\text{ac} = \$32,000$$

Site D

Excavation = 45,690 cy x \$10/cy = \$457,000

Fill = 5,462 cy x \$6/cy = \$33,000

Fine Grading = 6.7 ac x \$10,000/ac = \$67,000

Site E

Excavation = 5,482 cy x \$10/cy = \$55,000

Fill = 8,740 cy x \$6/cy = \$52,000

Import Borrow = 3,258 cy x \$20/cy = \$65,000

Fine Grading = 7.9 ac x \$10,000/ac = \$79,000

Site F

Excavation = 20,917 cy x \$12/cy = \$251,000

Fill = 3,250 cy x \$6/cy = \$20,000

Fine Grading = 4.6 ac x \$10,000/ac = \$46,000

Drainage

Drainage improvement costs that are site specific depend on the need to collect and divert offsite storm runoff from adjacent areas and/or the need to convey the water offsite to an adequate discharge point. The degree of analysis for this study was just for comparative purposes and is not intended to be an accurate evaluation of the drainage improvements needed.

Only Sites B and C would not have to be concerned about offsite storm runoff because of the very flat terrain and permeable soil.

Site A

Cutoff Ditch = 2,000 lf x \$32/lf = \$64,000

Drywell Inlets = 2 ea x \$9,000 ea = \$18,000

Site D

Cutoff Ditch = 2,500 lf x \$38/lf = \$95,000

Drywell Inlets = 2 ea x \$9,000 = \$18,000

Site E

Cutoff Ditch = 2540 lf x \$38/lf = \$97,000

Drywell Inlets = 2 ea x \$9,000 = \$18,000

Site F

Cutoff Ditch = 2,900 lf x \$38/lf = \$110,000

Drywell Inlets = 2 ea x \$9,000 = \$18,000

Wastewater

Normally the cost for wastewater improvements would be an offsite cost to extend a sewer system to the nearest municipal sewer system. However in this case there is no municipal system to serve any of the school sites. All of sites would require an on-site wastewater treatment/disposal system. For this study it was assumed that the treatment/disposal system would be a septic tank and effluent leaching field. The cost for this system would vary primarily due to the terrain and type of soil.

Site A

Septic Tank & Appurtenances = \$111,000

Leaching Field = \$199,000

Retaining Walls = \$30,000

Site B

Septic Tank & Appurtenances = \$113,000

Leaching Field = \$292,000

Site C

Septic Tank & Appurtenances = \$113,000

Leaching Field = \$292,000

Site D

Septic Tank & Appurtenances = \$111,000

Leaching Field = \$199,000

Retaining Walls = \$30,000

Site E

Septic Tank & Appurtenances = \$111,000

Leaching Field = \$199,000

Site F

Septic Tank & Appurtenances = \$111,000

Leaching Field = \$199,000

OFF-SITE DEVELOPMENT COSTS

Roadway

Sites A, D and F are located next to a major highway and, therefore, highway intersection improvements would be required to provide left-turn storage lanes, and right-turn deceleration lanes. Sites B and C require improvements to existing unpaved roads on two sides of the school lot. These roads should be improved to the County's standard for minor streets without sidewalks to be consistent with the Hawaiian Paradise Park streets. A new access road would be required for Site E since vehicular access is not available adjacent to the site. The access road would be about 1200 feet in length and should be built to the County's standard for minor streets with sidewalks because it is located in the Keaau Town area.

Site A

Highway intersection improvements to provide left-turn storage lane and right-turn deceleration lane.

Left-turn storage lane = 770 lf x \$52/lf = \$40,000

Right-turn deceleration lane = 400 lf x \$52/lf = \$21,000

Miscellaneous = \$8,000

Site B

Improve 25th and 26th Ave to County's standard for minor streets without sidewalks.

1620 lf x \$54/lf = \$87,000

Site C

Improve 14th and 15th Ave to County's standard for minor streets without sidewalks.

1620 lf x \$54/lf = \$87,000

Site D

Highway intersection improvements to provide left-turn storage lane and right-turn deceleration lane and improve adjacent existing road.

Intersection = \$69,000

Existing road improvements = $600 \text{ lf} \times \$58/\text{lf} = \$35,000$

Site E

New school access road, improvements to existing county road, and provide adequate sight distances at existing highway intersection.

New access road = $1,200 \text{ lf} \times \$400/\text{lf} = \$480,000$

Existing road improvements = \$102,000

Site F

Highway intersection improvements to provide left-turn storage lane and right-turn deceleration lane and improve adjacent existing road.

Intersection = \$69,000

Existing road improvements = $500 \text{ lf} \times \$58/\text{lf} = \$29,000$

Water

Sites D, E and F have adequate County water systems adjacent to the site or nearby. However Hawaiian Paradise Park does not have a water system to serve Sites B and C, and the existing County water system along Site A cannot provide adequate fire flow requirements.

Offsite improvements for Site A include providing a new 300,000 gallon reservoir and a new 12-inch main to satisfy fire flow requirements.

Offsite improvements for Sites B and C include extending a new 12-inch main from the respective sites to the County water system along Highway 130 and improving the County's system in order to satisfy fire flow requirements. One option is to add a new 300,000 gallon reservoir and 12-inch transmission main. However, the cost to provide a new reservoir in the

vicinity of Hawaiian Paradise Park would be very costly. A more cost effective option is to improve the existing transmission system between Keaau Town and Hawaiian Paradise Park by adding additional lines to supplement the existing capacity, as needed.

Site A

Provide new 300,000 gallon reservoir and 12-inch transmission main.

300,000 gallon reservoir = \$1,100,000 (Does not include cost of land)

12-inch main = 4,080 lf x \$110/lf = \$449,000

Miscellaneous & Appurtenances = \$28,000

Site B

Extend 12-inch main 3,600 feet to the highway and install parallel 12-inch and 16-inch mains along Highway 130.

12-inch main to Highway 130 = 3,600 lf x \$110/lf = 396,000

12-inch main parallel to existing 12-inch = 3,360 lf x \$110/lf = \$370,000

16-inch main parallel to existing 8-inch = 3,100 lf x \$167/lf = \$518,000

Miscellaneous & Appurtenances = \$80,000

Site C

Extend 12-inch main 11,000 feet to the highway and install parallel 12-inch and 16-inch mains along Highway 130.

12-inch main to Highway 130 = 11,000 lf x \$110/lf = \$1,210,000

12-inch main parallel to existing 12-inch = 3,360 lf x \$110/lf = \$370,000

16-inch main parallel to existing 8-inch = 3,100 lf x \$167/lf = \$518,000

Miscellaneous & Appurtenances = \$89,000

Site D

Extend 12-inch main from Highway 130 to the site

12-inch main = 600 lf x \$72/lf = \$43,000

Site E

Extend 12-inch main from existing County system to the site.

$$12\text{-inch main} = 1,200 \text{ lf} \times \$68/\text{lf} = 82,000$$

Power/Communication

All of the sites have power and communication systems adjacent or nearby. Off-site costs consist primarily of extending the service to the respect sites. Only Sites D and E require this extension.

Site D

Extend power/communication service to the site (buried system)

$$600 \text{ lf} \times \$63/\text{lf} = \$38,000$$

Site E

Extend power/communication service to the site (buried system)

$$1,200 \text{ lf} \times \$60/\text{lf} = \$72,000$$

KEA'AU II ELEMENTARY SCHOOL SITE SELECTION/INFRASTRUCTURE EVALUATION

COST ESTIMATE SUMMARY TABLE

COST CRITERIA	Site A	Site B	Site C	Site D	Site E	Site F
<u>ON-SITE DEVELOPMENT</u>						
Clearing	\$ 125,000	\$ 60,000	\$ 60,000	\$120,000	\$180,000	\$120,000
Grading	997,000	200,000	200,000	557,000	251,000	317,000
Drainage	82,000	0	0	113,000	115,000	128,000
Wastewater	<u>340,000</u>	<u>405,000</u>	<u>405,000</u>	<u>340,000</u>	<u>310,000</u>	<u>310,000</u>
Subtotal	\$1,544,000	\$665,000	\$665,000	\$1,130,000	\$856,000	\$875,000
<u>OFF-SITE DEVELOPMENT</u>						
Roadway	\$ 69,000	\$ 87,000	\$ 87,000	\$104,000	\$582,000	\$ 98,000
Water	\$1,577,000	1,364,000	2,187,000	43,000	82,000	0
Power/Communication	<u>0</u>	<u>0</u>	<u>0</u>	<u>38,000</u>	<u>72,000</u>	<u>0</u>
Subtotal	\$1,646,000	\$1,451,000	\$2,274,000	\$185,000	\$736,000	\$ 98,000
Total Cost	\$3,190,000	\$2,116,000	\$2,939,000	\$1,315,000	\$1,592,000	\$973,000

12/8/93