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JOHN WAIHEE  
GOVERNOR

January 13, 1988

OFC. OF ENVIRONMENTAL  
QUALITY CONTROL

Dr. Marvin T. Miura  
Interim Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

FILE COPY

Dear Dr. Miura:

Based on the recommendation of your office, I am pleased to accept the final environmental impact statement for the Hanamaulu-Wailua Elementary School on Kauai, 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 whether the action described therein should be allowed to proceed. My acceptance of the statement is an affirmation of the adequacy of that statement under 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 proposing agency to weigh carefully whether the societal benefits justify the environmental impacts which will likely occur. These impacts are adequately described in the statement, and, together with the comments made by reviewers, provide a useful analysis to the proposed action.

With kindest regards,

Sincerely,

JOHN WAIHEE

cc: The Honorable Russel Nagata

**Site Selection Report  
and Final Environmental  
Impact Statement**

for

**The New Hanamaulu-Wailua  
Elementary School  
Kauai**

Prepared for:  
**State of Hawaii  
Department of Accounting  
& General Services**

Prepared by:  
**Wilson Okamoto & Associates, Inc.**

Office of Environmental Quality Control  
235 S. Beretania #702  
Honolulu HI 96813  
586-4185

**DATE DUE**

~~Sept. 27, 1999~~  
October 19, 1999  
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Honolulu HI 96813  
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SITE SELECTION REPORT  
AND  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR THE  
NEW HANAMAULU-WAILUA ELEMENTARY SCHOOL  
KAUAI, HAWAII

This environmental document is prepared pursuant  
to Chapter 343, Hawaii Revised Statutes

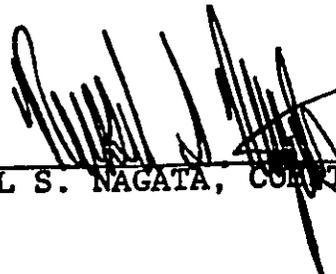
Proposing Agency:

Department of Accounting and General Services  
State of Hawaii

Accepting Authority:

Governor, State of Hawaii

Responsible  
Official:

  
\_\_\_\_\_  
RUSSEL S. NAGATA, CONTROLLER

10/29/87  
\_\_\_\_\_  
DATE

Prepared by:

Wilson Okamoto and Associates, Inc.  
Planners, Engineers, Architects  
Honolulu, Hawaii

TABLE OF CONTENTS

	<u>PAGE NO.</u>
PREFACE	
I. SUMMARY . . . . .	I-1
II. PROJECT NEED AND DESCRIPTION . . . . .	II-1
A. Existing Facilities . . . . .	II-1
1. Kapaa Elementary School . . . . .	II-1
2. Wilcox Elementary School . . . . .	II-1
B. Projected Enrollment . . . . .	II-1
C. Limitations . . . . .	II-3
D. Proposal . . . . .	II-5
III. PROJECT SETTING . . . . .	III-1
A. Regional Overview . . . . .	III-1
B. Service Area . . . . .	III-1
1. Existing Land Uses . . . . .	III-1
2. Climate . . . . .	III-2
3. Flora . . . . .	III-2
4. Fauna . . . . .	III-2
5. Wetlands . . . . .	III-3
6. Soils and Agricultural Potential . . . . .	III-4
7. Flood/Tsunami . . . . .	III-4
8. Scenic Characteristics . . . . .	III-7
9. Archaeological/Historic Sites . . . . .	III-7
10. Geology/Hydrology . . . . .	III-9
11. Topography . . . . .	III-10
12. Water Quality . . . . .	III-10
a. Surface Water . . . . .	III-10
b. Marine Waters . . . . .	III-12
C. Socioeconomic Characteristics . . . . .	III-12
1. Population . . . . .	III-12
2. Employment and Income . . . . .	III-13
3. Public Services . . . . .	III-13
a. Recreation . . . . .	III-13
b. Schools . . . . .	III-13
c. Police Protection . . . . .	III-14
d. Fire Protection . . . . .	III-14
e. Health Care Facilities . . . . .	III-14
f. Transportation . . . . .	III-14

	<u>PAGE NO.</u>
D. Infrastructure . . . . .	III-15
1. Water . . . . .	III-15
2. Sewerage . . . . .	III-15
3. Electrical/Telephone . . . . .	III-16
4. Drainage . . . . .	III-16
IV. RELATIONSHIP TO PLANS, POLICIES AND CONTROLS . . . . .	IV-1
A. Plans . . . . .	IV-1
1. Hawaii State Plan . . . . .	IV-1
2. Hawaii State Education Functional Plan . . . . .	IV-1
3. County General Plan . . . . .	IV-1
B. Land Use Policies . . . . .	IV-2
1. State Land Use Designation . . . . .	IV-2
2. Lihue Development Plan . . . . .	IV-2
3. County Zoning . . . . .	IV-3
C. Environmental Controls . . . . .	IV-3
1. Special Management Area . . . . .	IV-3
D. Landownership . . . . .	IV-4
V. IDENTIFICATION OF CANDIDATE SITES . . . . .	V-1
A. Site Selection Methodology . . . . .	V-1
B. Minimum Site Criteria . . . . .	V-1
C. Additional Criteria . . . . .	V-2
D. Candidate Sites . . . . .	V-4
1. Site 1 - Wailua Homestead Mauka Site . . . . .	V-6
2. Site 2 - Wailua Homestead Makai Site . . . . .	V-6
3. Site 3 - Wailua Golf Course Site . . . . .	V-6
4. Site 4 - Former Hanamaulu Elementary School . . . . .	V-8
Site . . . . .	V-8
5. Site 5 - Lihue Plantation Yard Site . . . . .	V-8

PAGE NO.

VI.	EVALUATION OF CANDIDATE SITES . . . . .	VI-1
A.	Evaluation Criteria . . . . .	VI-1
1.	School Site Criteria . . . . .	VI-1
a.	Environmental Characteristics . . . . .	VI-1
b.	Roadways and Utilities . . . . .	VI-4
c.	Accessibility . . . . .	VI-5
2.	Community Criteria . . . . .	VI-6
a.	Government . . . . .	VI-6
b.	Community Effects . . . . .	VI-7
B.	Summary of Evaluations . . . . .	VI-8
1.	Summary of School Site Criteria Evaluation . . . . .	VI-9
2.	Summary of Community Criteria Evaluation . . . . .	VI-9
3.	Summary of Cost Considerations . . . . .	VI-12
4.	Overall Evaluation Summary . . . . .	VI-14
VII.	PROBABLE IMPACTS AND MITIGATIVE MEASURES . . . . .	VII-1
A.	Short-Term Site Impacts . . . . .	VII-1
1.	Noise . . . . .	VII-1
2.	Air Quality . . . . .	VII-1
3.	Water Quality . . . . .	VII-2
4.	Traffic . . . . .	VII-2
5.	Public Health and Safety . . . . .	VII-2
6.	Archaeology . . . . .	VII-2
7.	Flora/Fauna . . . . .	VII-3
8.	Economy . . . . .	VII-3
B.	Long-Term Impacts . . . . .	VII-3
1.	Flora . . . . .	VII-3
2.	Fauna . . . . .	VII-3
3.	Traffic . . . . .	VII-3
a.	Impacts Along Kuhio Highway . . . . .	VII-3
b.	Impacts to Local Roadways . . . . .	VII-10
4.	Public Safety and Health . . . . .	VII-13
5.	Surrounding Land Uses . . . . .	VII-14
6.	Displacement . . . . .	VII-14
7.	Off-Site Infrastructure . . . . .	VII-14
8.	Social Considerations . . . . .	VII-15
VIII.	ALTERNATIVES TO THE PROPOSED ACTION . . . . .	VIII-1
A.	No Action . . . . .	VIII-1
B.	Adjusting Existing School Service Area . . . . .	VIII-1

PAGE NO.

C. Busing to Schools Outside the School Service Area . . . . . VIII-1

D. Expanding the Capacity of Existing Schools . . . . . VIII-1

IX. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY . . . . . IX-1

    A. Short-Term Uses . . . . . IX-1

    B. Long-Term Productivity . . . . . IX-1

X. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES . . X-1

XI. LIST OF NECESSARY APPROVALS . . . . . XI-1

XII. AGENCIES, ORGANIZATIONS AND INDIVIDUALS CONSULTED IN THE PREPARATION OF THE EIS . . . . . XII-1

XIII. EIS CONSULTATION PHASE, COMMENTS AND RESPONSES . . . . . XIII-1

XIV. EIS PUBLIC REVIEW PHASE, COMMENTS AND RESPONSES . . . . . XIV-1

XV. WILSON OKAMOTO & ASSOCIATES, INC. LIST OF PREPARERS OF THE EIS DOCUMENT . . . . . XV-1

REFERENCES

APPENDIX A - CANDIDATE SITE EVALUATIONS AND RESULTS

LIST OF FIGURES

<u>FIGURE</u>		<u>PAGE NO.</u>
1	Existing Service Areas . . . . .	II-2
2	Proposed Service Areas . . . . .	II-7
3	Existing Feeder Complex . . . . .	II-10
4	Proposed Feeder Complex . . . . .	II-11
5	Flood/Tsunami Hazard . . . . .	III-5
6	Archaeological/Historic Sites . . . . .	III-8
7	Slope Map . . . . .	III-11
8	Slope/Flood Hazard Constraints . . . . .	V-3
9	Potential School Sites . . . . .	V-5
10	Potential School Sites 1 & 2 . . . . .	V-7
11	Potential School Site 3 . . . . .	V-9
12	Potential School Sites 4 & 5 . . . . .	V-10
13	Water System - Sites 1 & 2 . . . . .	VII-16
14	Water and Sewer Systems - Site 3 . . . . .	VII-17
15	Water and Sewer Systems - Sites 4 and 5 . . . . .	VII-18
16	State Land Use District Map . . . . .	XI-2
17	County General Plan and SMA . . . . .	XI-3
18	County Zoning - Sites 1 & 2 . . . . .	XI-4
19	County Zoning - Site 3 . . . . .	XI-5
20	County Zoning - Sites 4 & 5 . . . . .	XI-6

LIST OF TABLES

<u>TABLE</u>	<u>PAGE NO.</u>
1 Potential Residential Developments . . . . .	II-4
2 Classroom Requirements for Accommodating Projected Enrollments at Existing Schools . . . . .	II-5
3 Cost of Expanding Existing Schools . . . . .	II-6
4 Cost Estimate for New Elementary School . . . . .	II-6
5 Operating Costs . . . . .	II-9
6 Explanation of Flood Zone Designations . . . . .	III-6
7 Historic and Archaeological Sites Found Within the Service Area . . . . .	III-9
8 Summary of School Site Criteria Evaluation . . . . .	VI-10
9 Summary of Community Criteria Evaluation . . . . .	VI-11
10 Cost Estimate Summary . . . . .	VI-13
11 Summary of Criteria Evaluation and Cost Estimates . . . . .	VI-15
12 Levels of Service Characteristics . . . . .	VII-5
13 Traffic Characteristics Along Kuhio Highway Near the Kuamoo Road Accessway to the Wailua Homestead Mauka and Makai Sites for Existing and Anticipated 1990 Conditions . . . . .	VII-6
14 Traffic Characteristics Along Kuhio Highway Near the Wailua Golf Course Site for Existing and Anticipated 1990 Conditions . . . . .	VII-7
15 Traffic Characteristics Along Kuhio Highway Near the Former Hanamaulu Elementary School Site for Existing and Anticipated 1990 Conditions . . . . .	VII-8
16 Traffic Characteristics Along Kuhio Highway Near the Lihue Plantation Yard Site for Existing and Anticipated 1990 Conditions . . . . .	VII-9
17 School Traffic Generation . . . . .	VII-11

PREFACE

This environmental document is prepared pursuant to the requirements of Chapter 343, Hawaii Revised Statutes, and Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement (EIS) Rules.

The document incorporates the methodology and results of the Site Selection Report which was undertaken to identify candidate school sites for the proposed new Hanamaulu-Wailua Elementary School. The Site Selection Report identifies five (5) candidate sites, all of which are assessed with regard to EIS report requirements. In this regard, the Site Selection Report does not recommend a preferred site, but identifies the relative advantages and disadvantages of the sites to facilitate discussion and decision-making on a final site.

I. SUMMARY

I. SUMMARY

A. Project Description

The Department of Education (DOE) proposes a new elementary school (K-6) within the proposed service area of the Hanamaulu-Wailua region of east Kauai. The establishment of an elementary school within this region would alleviate the problem of overcrowded conditions at the two existing schools - Kapaa Elementary and Wilcox Elementary.

This EIS discusses potential environmental impacts of five candidate school sites which have been identified through a site selection methodology which is documented herein. Through the site selection process, many of the potentially adverse environmental impacts were minimized. However, unavoidable impacts such as those related to construction operations remain and are discussed accordingly.

B. Candidate Sites

Based on a set of minimum site criteria and other additional criteria necessary for reducing the field of potential sites, five candidate sites were selected. Two of these, the Wailua Homestead Mauka and Makai Sites (Sites 1 and 2), are located in the Wailua Homestead area. Site 3, the Wailua Golf Course Site is located adjacent to the northern boundary of the Wailua Golf Course, makai of Kuhio Highway. The remaining two sites, the Former Hanamaulu Elementary School Site (Site 4) and Lihue Plantation Yard Site (Site 5), are located in Hanamaulu. The Lihue Plantation Yard Site lies mauka of Kuhio Highway while the Former Hanamaulu Elementary School Site is makai of the highway.

C. Project Setting

Kauai is the northernmost and the fourth largest island in the State of Hawaii. It has a resident population of 44,000 people and comprises a land area of 355,000 acres. Kauai is commonly referred to as the Garden Island because of its lush vegetation and scenic mountains.

The proposed service area is situated between Kapaa at the north and Lihue at the south. Kapaa contains light commercial centers and residential areas. Lihue, the seat of the County Government, is the center of major economic activities. The proposed service area incorporates three population centers - Wailua Homestead, Hanamaulu, and Kapaia.

D. Relationships to Plans, Policies and Controls

Land use considerations pertinent to the candidate school sites are as follows:

- o State Land Use Classification
- o County General Plan
- o County Zoning

Plans, policies and controls are considered in the site evaluation process.

E. Probable Impacts

1. Regional impacts include those associated with the economy and social and cultural environments.
2. Short-term construction related site impacts are associated with noise, air quality, water quality, erosion, traffic, public health and safety, and archaeology.
3. Long-term site impacts include those associated with flora, fauna, and infrastructure.

F. Alternatives Considered

1. The "no action" alternative is considered to be unacceptable as the schools within the project service area are presently operating beyond capacity and continued population growth is projected for the region.
2. Adjustment of the existing school service area would not provide an acceptable solution because excess capacity at other East Kauai schools is currently unavailable.
3. Busing to other schools is similarly considered to be infeasible due to the inadequacy of current facilities to accommodate additional bused students, and lack of space at these campuses to accommodate development of additional new facilities.
4. Expanding the capacities of existing elementary schools is not considered viable given the lack of sufficient land area to accommodate required new facilities.

G. Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

1. Implementation of the proposed project will include local short-term uses of man's environment during the construction phase of the project. Over the long-term, however, the new school will assure the continued maintenance and enhancement

of public education and social welfare by providing an essential educational service and facility that will meet the enrollment requirements of the region.

H. Irreversible and Irretrievable Commitments of Resources

1. Irretrievable resources committed to the project will include fuel, labor, funding and materials to implement construction of the new school. Development of the proposed project will involve the commitment of land for school use.

II. PROJECT NEED AND DESCRIPTION

## II. PROJECT NEED AND DESCRIPTION

The State Department of Education (DOE) is proposing to construct a new elementary school and to designate a new corresponding service area to relieve projected overcrowding at Kapaa Elementary and Wilcox Elementary Schools. The new school and service area would be located between the existing schools whose location and service area are shown in Figure 1. The proposal to build a new school is based on an assessment of existing facilities and projected needs as discussed below.

### A. Existing Facilities

The DOE operates 13 public schools on the Island of Kauai, 10 of which are elementary schools or offer an elementary school curriculum in addition to higher level instruction. Kapaa and Wilcox Elementary are the largest elementary schools on the island, providing K-6 curriculum for the east coast of Kauai, from Puhi to Moloaa. Collectively, the resident population they serve is approximately 14,000, or roughly 48 percent of the island total.

#### 1. Kapaa Elementary School

Kapaa Elementary shares its campus with Kapaa High and Intermediate School. Of the 2,278 K-12 enrollment total, 1,109 are elementary school students in grades K-6. The current capacity of the elementary school is 1,137.

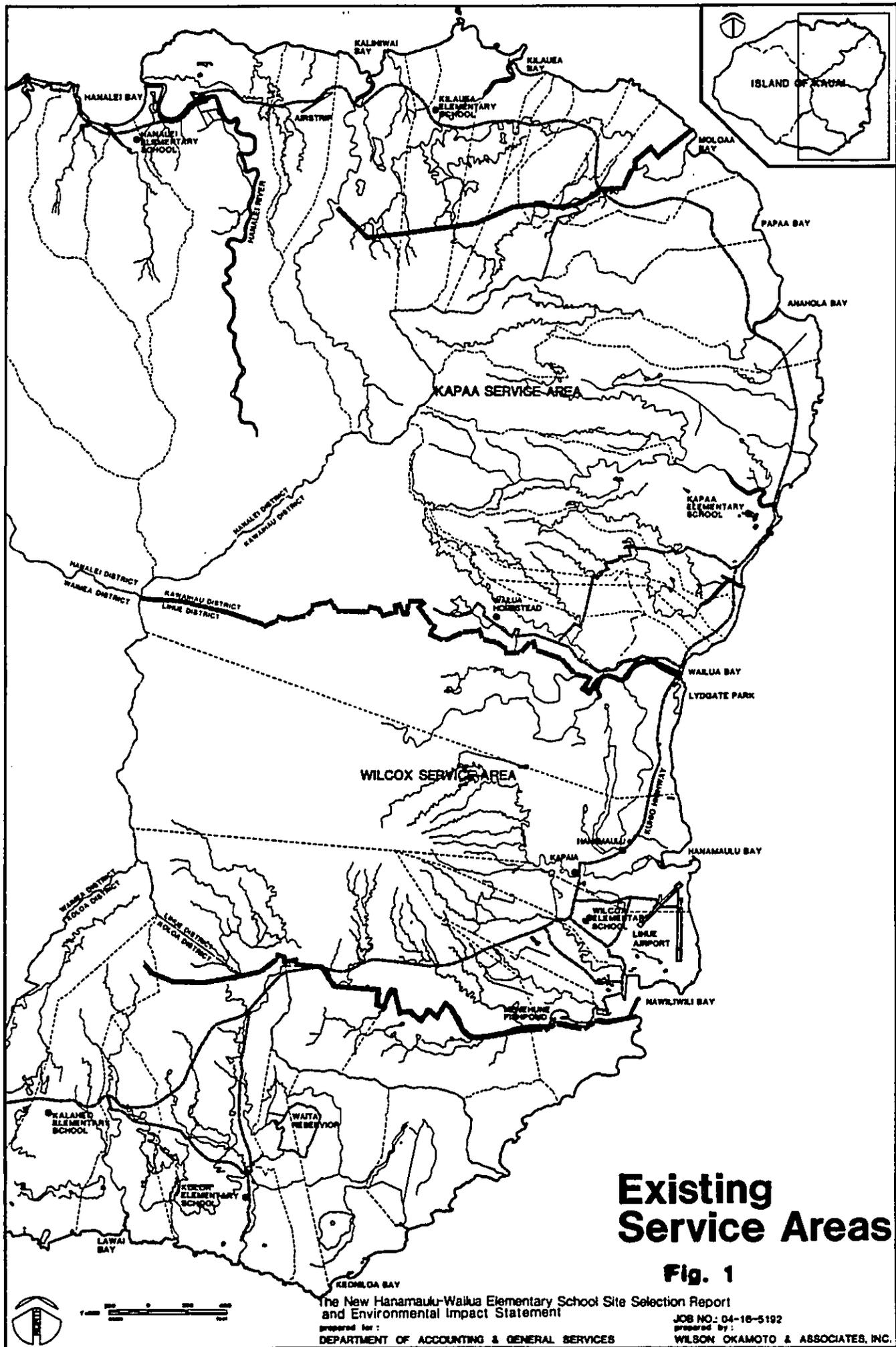
The elementary school campus occupies an area of 7.94 acres and has 43 permanent classrooms and 9 portable classrooms. The library is undersized, providing about 45 percent of the space required by DOE specifications. The cafeteria is even smaller, providing only 22 percent of the required space. To accommodate the current student population, the lunch period for the elementary school students must begin at 10:30 AM. This situation is regarded as highly undesirable.

#### 2. Wilcox Elementary School

Wilcox Elementary School is located in the Lihue District and has a campus area of 11.1 acres with 42 permanent and 6 portable classrooms. The current student enrollment is 992, which is approaching the current capacity of 1,030. The library and cafeteria are considered undersized for the current enrollment although the situation is not as critical as at Kapaa Elementary.

### B. Projected Enrollment

The projected enrollment for Kapaa Elementary School in the year 2005 is 1,500, or an increase of almost 400 students. The



projected enrollment at Wilcox Elementary School for the same period is 1,450 or an increase of almost 460 students. Thus, the total enrollment increase for both schools is approximately 860 students.

Much of the projected enrollment at both Kapaa Elementary and Wilcox Elementary schools is based upon anticipated housing developments within the service areas for these schools. Anticipated residential developments include units yet to be constructed in subdivisions approved by the County as well as proposed new subdivisions. See Table 1.

In the Kapaa Elementary School service area, five subdivisions totalling 457 units have been approved by the County while another three subdivisions totalling 315 units have been proposed. In the Wilcox Elementary School service area, the County has approved the 170 unit Ulu Ko subdivision while two other subdivisions totalling 610 units have been proposed.

C. Limitations

Classroom requirements for accommodating the projected growth have been estimated for each of the two schools. See Table 2. At Kapaa Elementary, 14 new permanent classrooms will be required to accommodate the projected increase in design enrollment. In addition, 7 portable classrooms will be required to accommodate an anticipated peak enrollment. Likewise, for Wilcox Elementary, 16 new permanent classrooms will be required to accommodate the design enrollment and an additional 6 portable classrooms will be required to accommodate the peak enrollment.

Additionally, at the Kapaa school complex, the cafeteria and library are already critically overburdened and any significant increase in enrollment will require the construction of additional facilities. The campuses at both Kapaa Elementary and Wilcox Elementary, however, lack sufficient space for facilities to accommodate the projected growth. Development of the required classrooms as well as support facilities would encroach significantly on playgrounds and open spaces. Consequently, the DOE recommends that the design enrollment for Kapaa Elementary be set at 1,100, or approximately at its current enrollment. Wilcox Elementary is also developed to its maximum and cannot accommodate further growth without compromising open space and program quality. Therefore, the DOE recommends that the design enrollment for the school be limited to 950 students, which is slightly below its current enrollment.

TABLE 1

POTENTIAL RESIDENTIAL DEVELOPMENTS\*

Kapaa Elementary School Service Area

Subdivision	Units	County Status	Potential Units
Wailua Homestead	557	Approved	235
Hulu Manu	107	Approved	21
Puu Kaa	139	Approved	30
Kawaihau	175	Approved	120
Mountain View Half-Acre Lots	51	Approved	51
Puu Pilo	34	Pending	34
Stepovich/Baldry	31	Pending	31
Waialeale Partner	250	Pending	250
TOTAL			772

Wilcox Elementary School Service Area

Subdivision	Units	County Status	Potential Units
Ulu Ko	170	Approved	170
Molokoa	284	Pending	284
Wiliko Expansion	326	Pending	326
TOTAL			780

\*All developments are single-family residences

**TABLE 2**  
**CLASSROOM REQUIREMENTS FOR ACCOMMODATING**  
**PROJECTED ENROLLMENTS AT EXISTING SCHOOLS**

**KAPAA ELEMENTARY SCHOOL**

Classroom Inventory	<u>Existing</u>	Additional		<u>Peak</u>	<u>Total</u>
		<u>1990</u>	<u>Design</u>		
Permanent Classrooms	43	7	7	-	57
Portable Classrooms	9	-	-	7	16

**WILCOX ELEMENTARY SCHOOL**

Classroom Inventory	<u>Existing</u>	Additional		<u>Peak</u>	<u>Total</u>
		<u>1990</u>	<u>Design</u>		
Permanent Classrooms	42	5	11	-	58
Portable Classrooms	6	-	-	6	12

As a basis for comparing the alternative of expanding Kapaa and Wilcox Elementary to the development of a new school, cost estimates of each were prepared by DOE. Cost estimates for expanding Wilcox and Kapaa Elementary include those for classrooms, dining facilities and a library, totalling approximately \$8,360,000. Excluded from this estimate are potential costs for acquiring additional land to expand the campuses, relocate uses that may presently exist on them and provide site improvements. See Table 3. By comparison, a new elementary school in the area would cost approximately \$8,755,000, excluding land acquisition and site improvement costs. See Table 4.

As an alternative to constructing new facilities, the DOE examined the possibility of adjusting school districts so as to spread the growth to surrounding schools. This approach was abandoned, however, since it was determined that schools in the area are already at capacity. For the same reason, the alternative of busing students to surrounding areas was also regarded as unfeasible.

**D. Proposal**

The DOE proposes to construct a new elementary school to be located between Wilcox and Kapaa Elementary School and to designate a new corresponding service area by redistricting the existing service area for these schools. See Figure 2. Two major

TABLE 3

COST OF EXPANDING EXISTING SCHOOLS

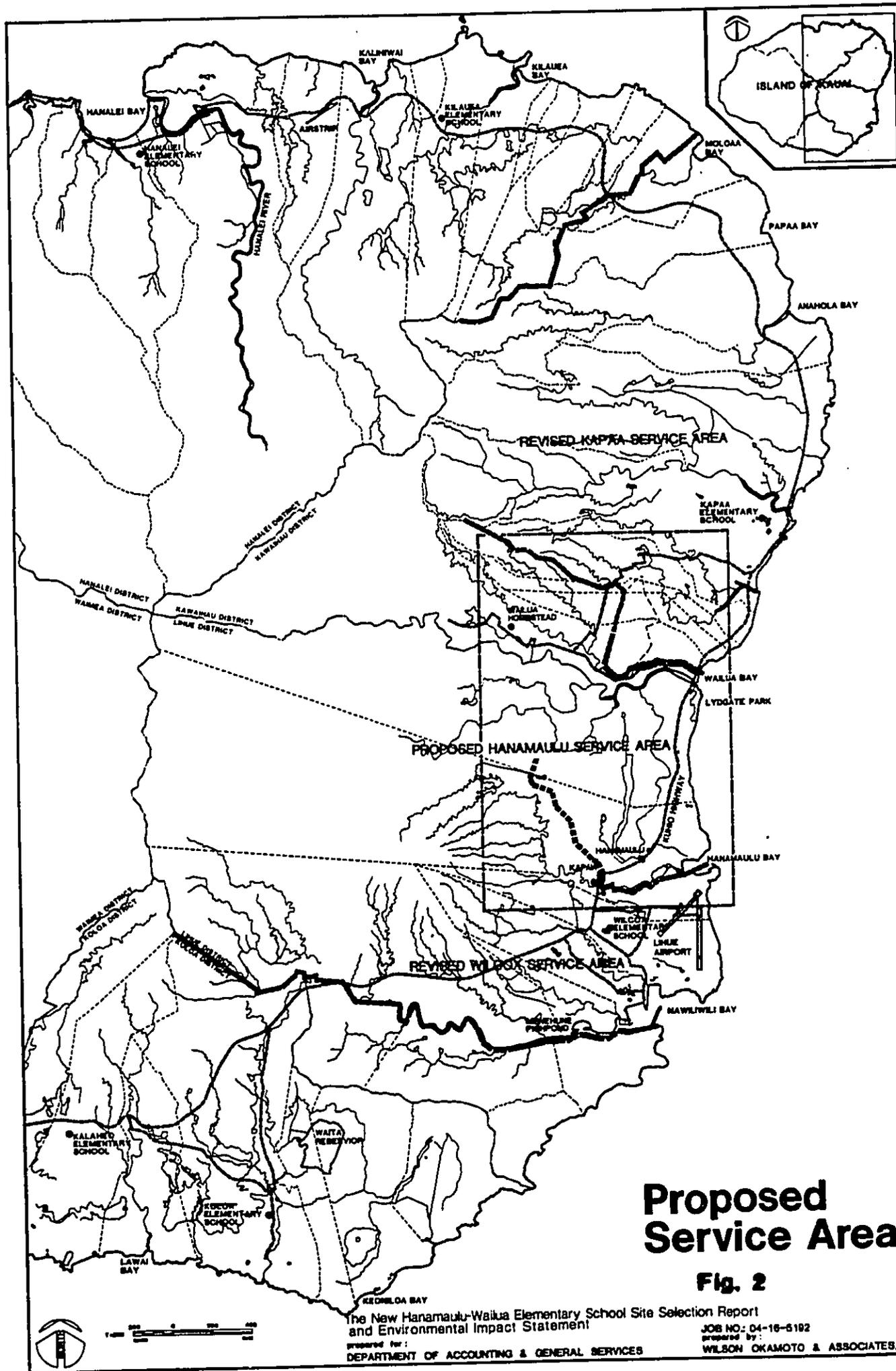
Kapaa Elementary Classrooms	\$2,530,000
Kapaa High Dining/Service Kitchen	\$2,130,000
Kapaa High Library	\$1,050,000
Wilcox Elementary Classrooms	\$2,650,000
Total . . . . .	\$8,360,000

TABLE 4

COST ESTIMATE FOR NEW ELEMENTARY SCHOOL\*  
(In 1985 dollars)

<u>Planning and Design</u>	
EIS, Site Selection . . . . .	\$ 35,000
Master Plan . . . . .	\$ 40,000
<u>Construction</u>	
Classrooms, regular (36) . . . . .	\$5,400,000
Classrooms, special education (3) . . . . .	\$ 480,000
Portables (8) . . . . .	\$ 320,000
Administration . . . . .	\$ 580,000
Library . . . . .	\$ 650,000
Dining Room-Serv. Kitchen . . . . .	\$1,100,000
Parking . . . . .	\$ 50,000
Playcourt . . . . .	\$ 100,000
Total . . . . .	\$8,755,000

\*Preliminary estimates prepared by DOE.



population centers lying within the new service area are Wailua Homestead and Hanamaulu. The new school will serve both of these towns and will relieve the projected enrollment pressure on the existing schools, allowing for fixed design enrollment levels. Pending opening of the new school, currently scheduled for 1990, additional portable classrooms will be provided at both Wilcox and Kapaa Elementary to accommodate increasing enrollment. When the new school is opened, those portable classrooms will be relocated to other schools.

The new elementary school will ultimately be comprised of 47 classrooms, including 36 permanent classrooms and 8 portable classrooms to accommodate a projected design enrollment of 900 students, and another 3 portable classrooms to accommodate a peak enrollment projection of 990 students.

The cost for the proposed elementary school is estimated to be approximately \$8,755,000 (in 1985 dollars) which includes master planning and construction of 47 classrooms and support facilities, including an administrative office, cafeteria, and library. Annual operating costs are estimated to be \$188,609 (in 1985 dollars). See Table 5.

The proposed elementary school will change the feeder system of students graduating from elementary to intermediate to high school in the existing service areas. Presently, Kapaa Elementary students feed into Kapaa Intermediate and High School. Wilcox Elementary students attend Kauai Intermediate and High School. See Figure 3.

The proposed feeder complex for East Kauai, upon completion of the proposed elementary school, is shown in Figure 4. Depending upon where they live, students from the proposed school will feed into either the Kapaa Intermediate and High School Complex or the Kauai Intermediate and High School Complex. Wilcox Elementary students will continue to feed into Kauai Intermediate and High School. Kapaa Elementary students will continue to feed into Kapaa Intermediate and High School.

**TABLE 5**  
**OPERATING COSTS\***

	<u>1985 Annual Salary</u>	<u>Number Required</u>	<u>Annual Cost</u>
<b><u>Office Staff</u></b>			
Principal	\$33,300	1	\$ 33,300
Vice-Principal	\$29,950	1	\$ 29,950
SASA	\$14,580	1	\$ 14,580
Clerk-Typist	\$12,500	1	\$ 12,500
Librarian	\$19,075	1	\$ 19,075
Counselor	\$19,075	1	\$ 19,075
<b><u>Custodial Staff</u></b>			
Head Custodian	\$13,689	1	\$ 13,689
Custodian	\$12,700	2	\$ 25,400
<b><u>Food Services</u></b>			
Van Driver	\$ 8,500	1	\$ 8,500
Cook Helpers	\$ 6,270	2	\$ 12,540
		<b>TOTAL</b>	<b>\$188,609</b>

\*In 1985 dollars

# EXISTING FEEDER COMPLEX

KAPAA  
ELEMENTARY  
(K-6)



KAPAA HIGH AND  
INTERMEDIATE  
(7-12)

WILCOX  
ELEMENTARY  
(K-6)



KAUAI HIGH AND  
INTERMEDIATE  
(7-12)

**Fig. 3**

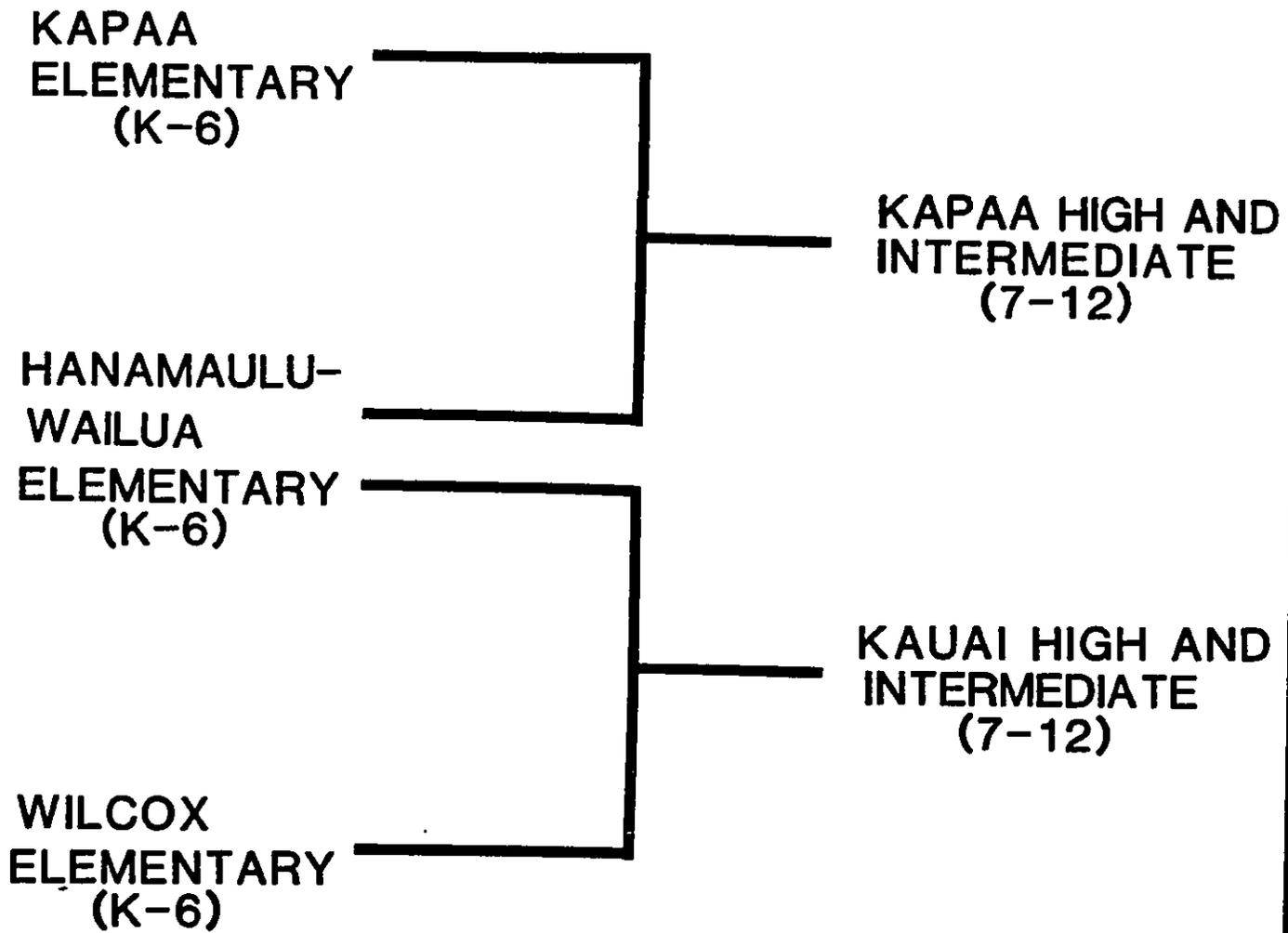
The New Hanamalu-Wailua Elementary School Site Selection Report  
and Environmental Impact Statement

prepared for:  
DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO.: 04-16-5192

prepared by:  
WILSON OKAMOTO & ASSOCIATES, INC.

# PROPOSED FEEDER COMPLEX



**Fig. 4**

The New Hanamaulu-Wailua Elementary School Site Selection Report  
and Environmental Impact Statement

prepared for:  
DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO.: 04-16-5192

prepared by:  
WILSON OKAMOTO & ASSOCIATES, INC.

III. PROJECT SETTING

### III. PROJECT SETTING

#### A. Regional Overview

Kauai is the northernmost and the fourth largest island in the State of Hawaii. It has a resident population of approximately 44,000 people. It is 33 miles long and 25 miles wide with a land area of 355,000 acres. Kauai is commonly referred to as the Garden Island because of its lush vegetation and scenic mountains.

Sugar and tourism are the principal industries of Kauai. Extensive canefields are found along the southern and eastern coasts. Visitor industry centers include Poipu Beach on the southeast, Kapaa and Lihue on the east coast, and the Hanalei and Princeville areas of the north shore.

The City of Lihue is the seat of the County Government as well as the center of major economic activities for the County. This urbanized area has a resident population of about 4,000 and is the location of two major transportation facilities, Lihue Airport and Nawiliwili Harbor.

Kapaa is situated north of Lihue and has a population of approximately 4,467 residents. It contains residential and commercial centers. Kapaia, Hanamaulu, and Wailua are primarily rural residential communities found within the proposed service area.

#### B. Service Area

##### 1. Existing Land Uses

Existing land uses within the proposed service area are predominantly agriculture and residential. Within the northern boundary lies Wailua Homestead, other single-family residences, Wailua River, and Wailua Marina Complex. Proceeding south, sugarcane lands, Malae Heiau, the Kauai Community Correctional Facility, and Kalepa Ridge are located mauka of Kuhio Highway. Mauka of Kalepa Ridge are vast acreages of sugarcane.

On the makai side of Kuhio Highway beginning at the mouth of Wailua Bay and heading south, lies Lydgate State Park, Kauai Resort Hotel, a County sewage treatment plant, Kaha Lanii (a condominium-apartment building), Wailua Golf Course, Kauai Hilton Hotel, and Kauai Beach Villas.

Within the southern boundaries of the proposed service area lie the communities of Hanamaulu and Kapaia.

Existing land uses within Hanamaulu Town include the Lihue Plantation subdivision, a post office, a gas station, a grocery store, a County park, a plantation baseyard, and other single-family residences. Kapaia contains single-family housing residences, an upholstery/auto shop, a dry goods store, a church, and dry cleaners. Hanamaulu Stream discharges into the mouth of Hanamaulu Bay.

## 2. Climate

The semi-tropical climate of the Island of Kauai is characteristically tropical and influenced by its location southwest of the Pacific High or anticyclone. The average annual temperatures recorded at the Lihue Plantation in Hanamaulu range between a high of 77.9°F and a low of 65.5°F. The average annual rainfall is 105.4 inches and the windspeed varies from 13 to 24 miles per hour from a northeasterly direction. The average relative humidity recorded at Lihue airport is 67 percent in the middle of the afternoon and 83 percent in the early morning hours.

## 3. Flora

There are no known species of plants that are listed, proposed, or candidates for endangered species designation within the service area. Vegetation observed in the service area include lantana, guava, koa haole, kikuyugrass, molasses-grass, guineagrass, bermudagrass, java plum, yellow foxtail, pineapple, sugarcane, and taro.

## 4. Fauna

Fauna which may be found within the service area and which are protected by the Endangered Species Act are as follows:

- Hawaiian coot (ala keokeo)-Fulica americana alai
- Hawaiian stilt (aeo)-Himantopus himantopus knudseni
- Hawaiian gallinule (alae ula)-Gallinula chloropus sandvicensis
- Hawaiian duck (koloa)-Anas wyvilliana
- Hawaiian hoary bat-Lasiurus cinereus semotus

Migratory birds which are protected by local laws include:

- Black-crowned heron-Nycticorax nycticorax hoactli
- Golden plover-Pluvialis dominica fulva
- Shoveler-Spatula clypeata
- Pin tail-Anas acuta

Wetlands within the service area also contain a variety of fauna including waterbirds such as the coot, stilt, gallinule, koloa; non-avian wildlife such as bullfrogs,

toads, gastropod molluscs; and a variety of aquatic insects. Mules, cows, horses, dogs, and cats have also been observed, a reflection of the rural-agricultural and urban mix of uses found in the region.

Non-waterbird avifauna observed in wetlands include the common Myna, Japanese White-eye, House Finch, Shama, House Sparrow, Northern Cardinal and Barred Dove. The Western Meadowlark, Ring-necked Pheasant and Spotted Dove are found primarily in the surrounding pasturelands. Chickens were observed feeding alongside coots, gallinule, and Koloa in taro fields.

#### 5. Wetlands

In an ornithological survey of Hawaiian wetlands prepared by Ahuimanu Productions in 1977, three wetlands were identified within the service area. They are the Wailua River/Opaekaa River Valley, the Wailua Jail Marsh, and Kawaihoa Flats (Hanamaulu).

The Wailua River and Opaekaa Stream run parallel to one another, separated by a narrow ridgeline. The Opaekaa Stream converges with the Wailua River approximately 1/2 mile west of the river mouth. This river valley wetland is surrounded primarily by extensive pastureland (which is flooded during heavy rains) and heavily forested hillsides. A dense overgrowth of hau lines the river's edge for much of its length. The lowest flatland along Wailua River, once a tidal marsh, is occupied by the Paradise Pacifica, a tropical botanical garden which contains seven shallow ponds.

The Wailua Jail Marsh area is largely pasture. Water permeates on much of the grassland particularly in the northwest corner of the site. The water depth is generally less than one foot in the wettest portions of the marsh. Lack of water movement and dense growth of bulrushes contribute to the surface scum and stench. Hau borders most of the wetland and is the most dominant tree in the vicinity. Sloping canefields border the pasture where cattle graze. Waterbirds observed at the site include the Auku'u, Koloa and Cattle Egret.

Kawaihoa Flats is a transient wetland which fills after prolonged rains. Water collecting in depressions on the flats is quickly lost due to runoff and evaporation. More permanent water is found in irrigation drainage canals, most of which are choked with California grass, bulrush, and hyacinth. Toward the southern end of the site is a pond which drains directly into the ocean. Hau and scattered ironwood border the pond. A small number of cows and horses have been observed grazing on the site.

The Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) are situated proximate to the Opaekaa Stream and its north tributary, the Kalama Stream. A seasonal wetland is located north of Site 1. As indicated on National Wetlands Inventory Maps, this wetland is described as palustrine, emergent and persistent. Since the wetland is approximately 200 feet from Site 1 at its nearest point, it poses no constraints on school development.

#### 6. Soils and Agricultural Potential

The soil characterizing the Hanamaulu and Wailua areas is the Lihue-Puhi association (U.S. Department of Agriculture, 1972). This soil association consists of well-drained, medium-textured and fine-textured soils found on the uplands of South and East Kauai. These soils are nearly level to steep and were developed in material weathered from basic igneous rock. Some uses of this soil type include sugarcane, pineapple, pasture, woodland, wildlife habitat, and homesites.

The State Department of Agriculture has identified Agricultural Lands of Importance for the State of Hawaii (ALISH) and categorizes these into three groups. "Prime" agricultural lands are those which have the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically, when treated and managed according to modern farming methods. "Unique" agricultural lands have a special combination of soil quality, location, growing season, and moisture supply currently used to produce sustained high quality and/or high yields of a specific crop when treated and managed according to modern farming methods. "Other" important agricultural lands include agricultural lands which have not been rated "prime" or "unique". The majority of the service area is "prime" agricultural lands. The remaining areas consist of rural and urban developments.

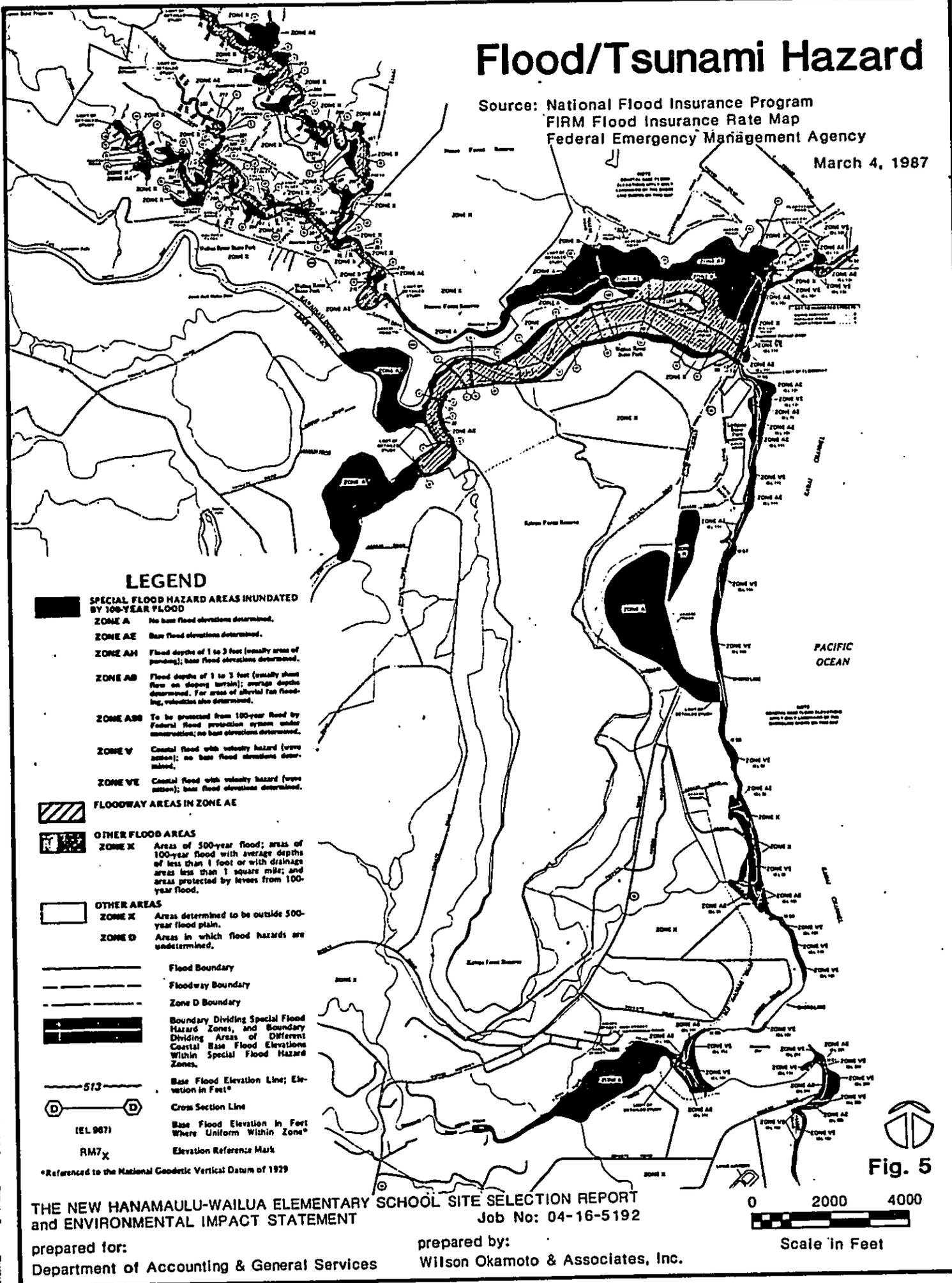
#### 7. Flood/Tsunami

The Flood Insurance Rate Map designates the northern section of the service area, west of the "Sleeping Giant" (Nonou Ridge), as zones AE and X. See Figure 5. Zone A is described as a special flood hazard area inundated by the 100-year flood within which base flood elevations are determined; Zone X indicates areas of 500-year flood, areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, areas protected by levees from 100-year flood or areas determined to be outside the 500-year flood plain. See Table 6 for explanation of zone designations.

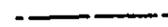
# Flood/Tsunami Hazard

Source: National Flood Insurance Program  
FIRM Flood Insurance Rate Map  
Federal Emergency Management Agency

March 4, 1987



## LEGEND

-  SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD
- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AM** Flood depths of 1 to 3 feet (usually areas of ponds); base flood elevations determined.
- ZONE AB** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of sheet flow flooding, velocities also determined.
- ZONE AV** To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- ZONE VE** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.
-  FLOODWAY AREAS IN ZONE AE
- OTHER FLOOD AREAS**
- ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.
- OTHER AREAS**
- ZONE X** Areas determined to be outside 500-year flood plain.
- ZONE D** Areas in which flood hazards are undetermined.
-  Flood Boundary
-  Floodway Boundary
-  Zone D Boundary
-  Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.
-  Base Flood Elevation Line; Elevation in Feet\*
-  Cross Section Line
-  Base Flood Elevation in Feet Where Uniform Within Zone\*
-  Elevation Reference Mark

\*Referenced to the National Geodetic Vertical Datum of 1929

THE NEW HANAMAULU-WAILUA ELEMENTARY SCHOOL SITE SELECTION REPORT  
and ENVIRONMENTAL IMPACT STATEMENT  
Job No: 04-16-5192

prepared for:  
Department of Accounting & General Services

prepared by:  
Wilson Okamoto & Associates, Inc.

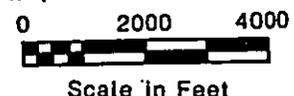


Fig. 5

TABLE 6

EXPLANATION OF FLOOD ZONE DESIGNATIONS

<u>Zone</u>	<u>Explanation</u>
A	Special flood hazard areas inundated by 100-year flood; no base flood elevations determined.
AE	Special flood hazard areas inundated by 100-year flood; base flood elevations determined.
AH	Special flood hazard areas inundated by 100-year flood; flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
AO	Special flood hazard areas inundated by 100-year flood; flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
A99	Special flood hazard areas inundated by 100-year flood; to be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
V	Special flood hazard areas inundated by 100-year flood; coastal flood with velocity hazard (wave action); no base flood elevations determined.
VE	Special flood hazard areas inundated by 100-year flood; coastal flood with velocity hazard (wave action); base flood elevations determined.
X	Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. Areas determined to be outside 500-year flood plain.
D	Areas in which flood hazards are undetermined.

Areas along and north of the Wailua River area are primarily designated X, A and AE.

Along the coastline and heading in a southerly direction towards Hanamaulu Bay, the flood designations include A, AE and VE. The designation for the lower reaches of Hanamaulu Stream is A while Hanamaulu and Kapaia town are designated

X. The proposed school sites are within Flood Zone X, an area of minimal flooding.

8. Scenic Characteristics

The service area is primarily open space and surrounded by scenic natural resources. The Lihue and Kapaa town centers afford panoramic vistas of mountains and vast greenery to the west. Kuhio Highway offers pleasant mountain, forest, and ocean sights outside the service area while canefields and the Kalepa Ridge are predominant features within the service area. Popular tourist activities and attractions include scenic waterfalls, Wailua River Marina, Lydgate Park and Wailua Golf Course (both overlooking the ocean), and other scenic sites and lookout points situated throughout the service area.

9. Archaeological/Historic Sites

There are several registered historic and archaeological sites within the service area. Beginning at the northern section along Nonou Ridge and Wailua River, and heading south towards Hanamaulu Town are a series of heiaus and other significant sites. See Figure 6. Table 7 lists these sites, and their respective Tax Map Key (TMK) designations.

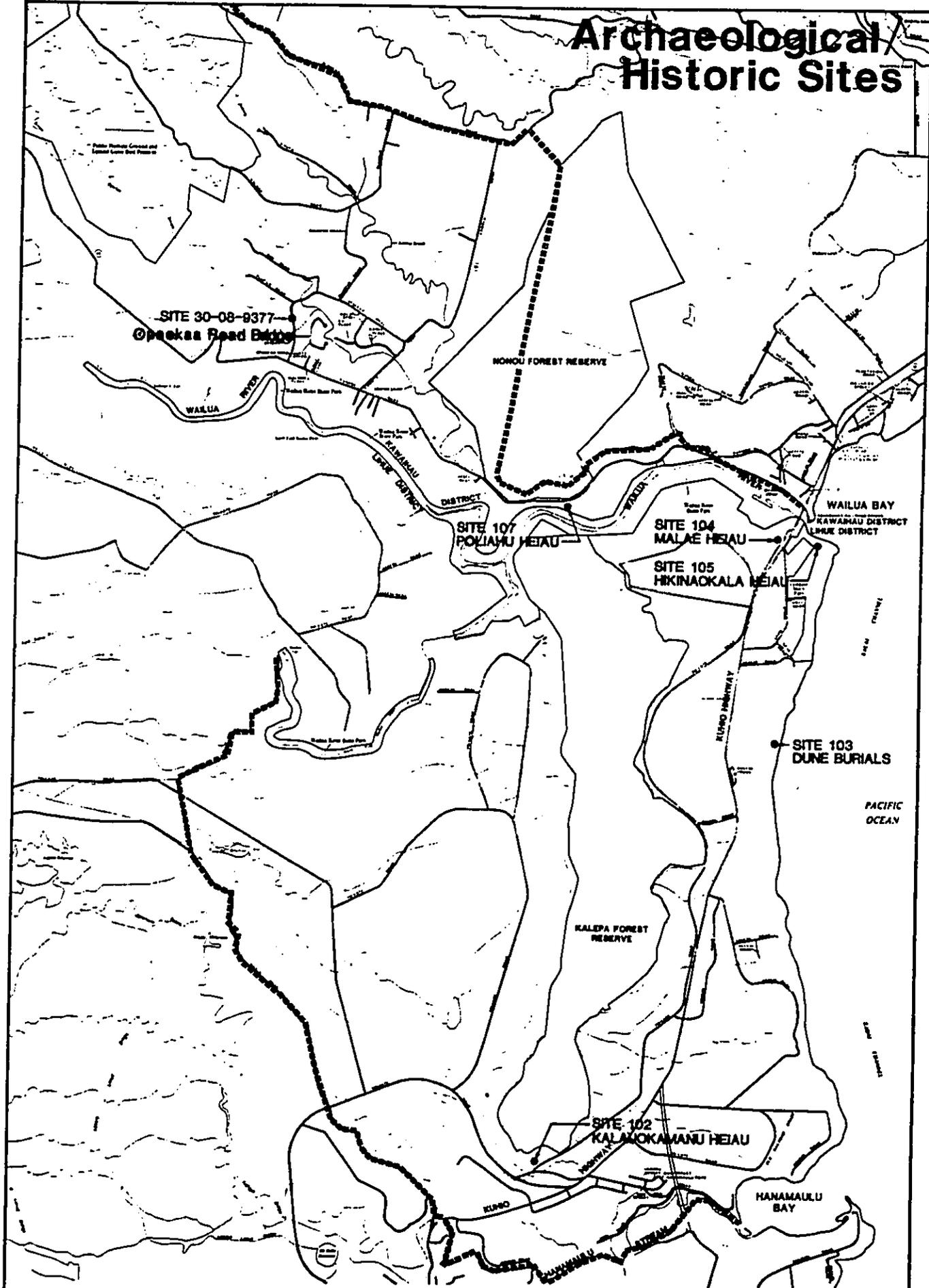
Poliahu Heiau (Site No. 107) is situated on the pali between Opaekaa and Wailua Rivers, just to the seaward side of Opaekaa Falls. The site commands an excellent view of the valley below. It is characterized by a row of stones which indicate that the walls may have extended out farther and higher at one time. It is approximately 242 feet in length, 165 feet in width, and about 6 feet in height.

Malae Heiau (Site No. 104) is a short distance south of Wailua River and is raised in elevation, which enables a good view of the valley. It measures approximately 273 feet by 324 feet. Its companion heiau, Poliahu, is located further inland.

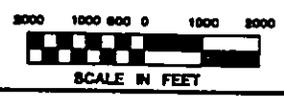
Hikinaokala Heiau (Site No. 105) is located on the south bank of the Wailua River near the shore. Much of the stone which formed the heiau have been removed. The remaining stones indicate that they were formerly used as slabs supporting larger stones. The Kauai Historical Society refers to the site as the Hauola City of Refuge as well as a heiau.

The dune burials (Site No. 103) are located along the shore halfway between Hanamaulu and Wailua River. Several Hawaiian burials purportedly are located here.

# Archaeological Historic Sites



**Fig. 6**



The New Hanamaulu-Wailua Elementary School Site Selection Report  
and Environmental Impact Statement  
prepared for:  
DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO.: 04-16-5182  
prepared by:  
WILSON OKAMOTO & ASSOCIATES, INC.

Kalauokamanu Heiau (Site No. 102) is located in Hanamaulu just west of the Lihue Plantation Yard and adjacent to a canehaul road. It is of the pookanaka class and was destroyed in 1855.

Opaekaa Road Bridge (Site No. 30-08-9377) is 9 feet 8 inches high and was part of a longer bridge which crossed over Wailua River. It is a single lane, wrought-iron, Warren truss which terminates with vertical endposts. The bridge is 73 feet long and is the only known British-made iron bridge in the U.S. and one of few such bridges in Hawaii.

TABLE 7

HISTORIC AND ARCHAEOLOGICAL SITES FOUND WITHIN THE SERVICE AREA

<u>Site No.</u>	<u>Name</u>	<u>TMK</u>
107	Poliahu Heiau	4-2-04:8
104	Malae Heiau	3-9-06:15
105	Hikina O-ka-la Heiau (Hauola City of Refuge)	3-9-06:1 3-9-06:1
103	Dune Burials	See Figure 6
102	Kalauokamanu Heiau	3-8-02:4
30-08-9377	Opaekaa Road Bridge	4-2-02:22

10. Geology/Hydrology

The Waimea Canyon volcanic series formed the major volcanic shield of the island of Kauai. The series consists almost entirely of olivine basalt rocks. The Napali formation of the Waimea Canyon volcanic series constitutes the major portion of the shield, extending from its base at the ocean floor.

Within the service area are several geologic features. Lavas exposed in Kalepa Ridge closely resemble the lavas of the Napali formation. Sand and gravel deposits found along the beaches include volcanic debris such as olivine, which gives the sand a greenish tint. At numerous places, the beach deposits are consolidated into bedded calcareous sandstone called beachrock. In addition, dunes of unconsolidated sand made up of mostly fine to medium-grained calcareous debris derived from beaches can be found along the shore east of Kalepa Ridge.

Waterfalls in the service area include Kaholalele Falls, Wailua Falls and Opaekaa Falls. Hanamaulu Stream, Opaekaa Stream, and Wailua River are the major streams.

Within the proposed service area, basal groundwater occurs in the lava flows of the Napali formation in Kalepa Ridge. Here, wells have basal heads ranging from about 10 to 16 feet, produced primarily by the impounding effects of lava flows of the Koloa volcanic series surrounding the ridge. Dikes in the ridge probably divide the basal aquifer into compartments, but wells are too few for estimating the size of compartments and their water-bearing capacities.

High-level groundwater discharges into streams through small perched bodies and into dike reservoirs through lava flows of the Napali formation.

#### 11. Topography

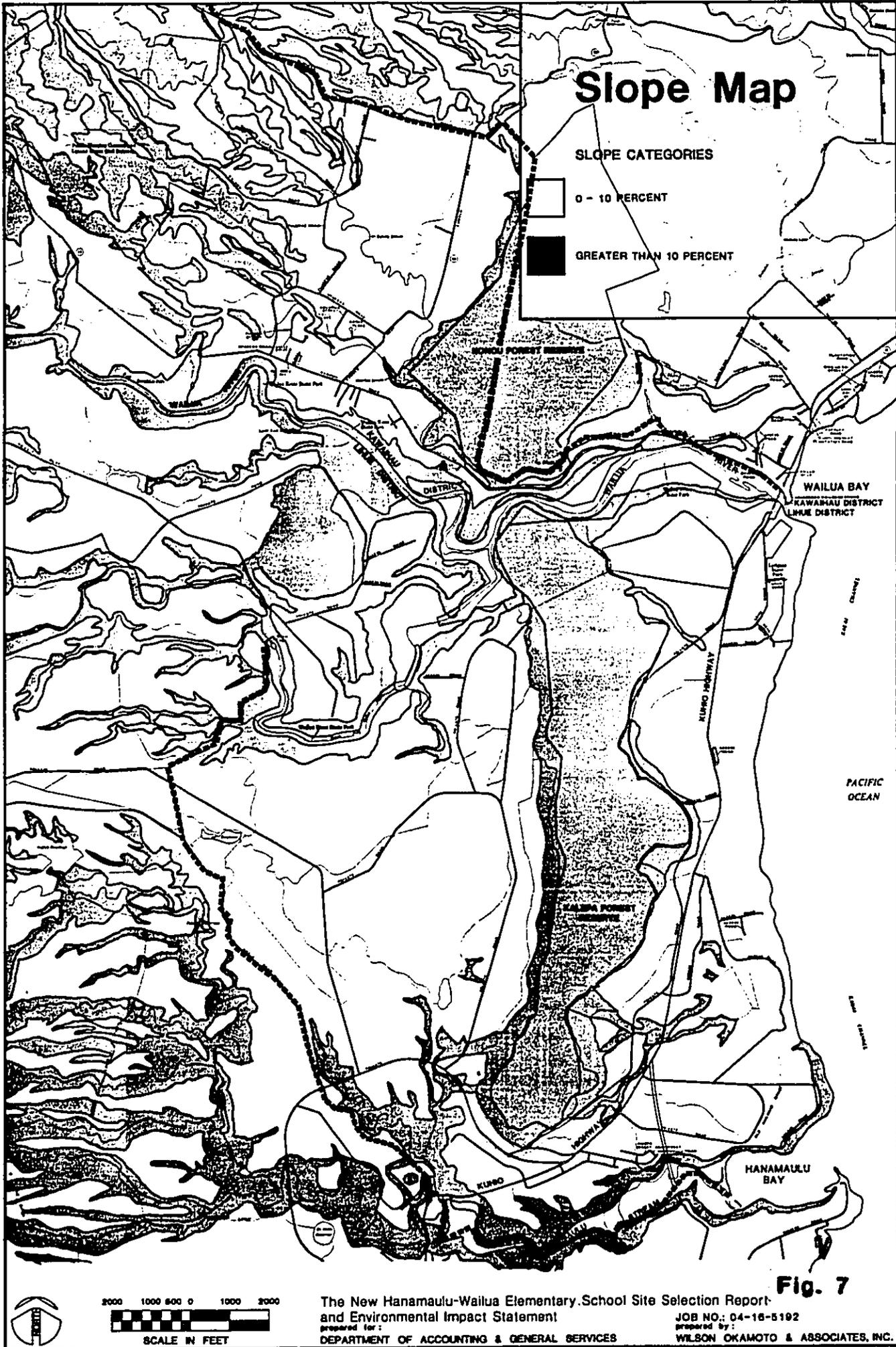
The topography of the service area varies significantly in slope. The Kalepa Ridge, Wailua River State Park, Wailua Homestead, and the areas surrounding Kapaia town at the southern boundary are characterized by slopes greater than 11 percent. See Figure 7. The remaining areas fall in the 0-10 percent slope category. Areas in this category are situated along Kuhio Highway and mauka of Kalepa Ridge. The highest point within the service area is the peak of Kalepa Ridge, at approximately 660 feet above sea level.

#### 12. Water Quality

##### a. Surface Water

In 1977, the U.S. Fish and Wildlife Service's Stream Channel Modification in Hawaii study classified perennial streams into one of four categories. The categories are based upon both the environmental quality and the appropriate use of the streams. The State DOH water quality standards (as had been proposed in 1977) were used as a guide to categorize streams. The four categories are:

- o **Pristine-Preservation-**  
Streams with high environmental and biological quality which should be preserved.
- o **Limited Consumptive-**  
Streams with moderate to high quality water or natural values, whose use is controlled to prevent excessive modification.



- o Exploitive-Consumptive-  
Streams with moderate to low natural (environmental-biological) and/or water quality (those which are well exploited, modified or degraded) and are intended for water related recreational activities.
- o Construct-Alter-  
Streams with low environmental and biological quality which may be restricted to the public for health or safety reasons.

There are two recognized perennial streams within the proposed service area - Wailua River and Hanamaulu Stream. Wailua River is located along the northern extent of the service area and Hanamaulu Stream is located at the southern extent. Both Wailua River and Hanamaulu Stream, and their tributaries, are categorized as Exploitive- Consumptive.

b. Marine Waters

The marine waters within Hanamaulu Bay and Wailua Bay have been classified by the State Department of Health as "Class A" (Chapter 54 - Water Quality Standards of Title 11, State Department of Health Administrative Rules). Under this classification, water quality is maintained to provide recreation and aesthetic pursuits. Hanamaulu Bay is also defined as a marine pool, where water collects in depressions on sea level lava rock outcrops and solution benches, behind large boulders fronting the sea. As a marine pool, Hanamaulu Bay is classified as Class II by the State Department of Health to be preserved.

c. Socioeconomic Characteristics

The "census designated places" (CDP) of Hanamaulu and Wailua are used to define the regional context for the proposed elementary school. The U.S. Bureau of Census defines CDPs for the State of Hawaii as those places with a minimum population of 300. Thus, virtually all places shown for Hawaii in the 1980 census reports are CDPs.

1. Population

There are three populated areas within the proposed service area - Wailua, Hanamaulu, and Kapaia. The 1980 populations for Wailua and Hanamaulu were 1,587 and 3,227, respectively. Kapaia is not a CDP, therefore, estimated population counts are unavailable. Overall, the population for Kauai County was 43,980 residents in 1984. The

projected population provided by State economists is 55,000, 63,900, 69,100 and 72,000 for the years 1990, 1995, 2000 and 2005, respectively.

2. **Employment and Income**

The majority of residents within the service area are employed at Lihue which serves as the major commercial, business, and governmental center of Kauai. The per capita income for Hanamaulu residents in 1980 was \$5,001.00 and \$6,192.00 for Kapaa area residents. Generally, State and Local government positions accounted for 2,500 jobs in Kauai in 1984. The tourist industry provided 2,400 jobs for the same year while other service industries such as health care provided 2,050 jobs.

The annual average unemployment rate for Kauai County, in general, for 1985 was 5.2%.

3. **Public Services**

a. **Recreation**

The project service area offers a host of recreational facilities. In the Wailua area, the Wailua Marina provides tourists and residents alike with an opportunity to view sites along Wailua River by boat. Lydgate Park, Wailua Falls, Wailua River State Park, Wailua Homestead Park, and Fern Grotto offer park-goers a place to relax. The Wailua Golf Course, Nonou Forest Reserve and Kalepa Forest Reserve Trails, and the Hicates Horse Ranch offer other recreational opportunities.

South of the Wailua Golf Course, recreational facilities include the Kauai Firing Range, the Garden Island Riding Club, the Hanamaulu Town Park, Laukona Park, and the Hanamaulu Subdivision Park.

b. **Schools**

There are no existing public schools within the service area except for evening adult education classes held at Hale Hauoli Day Activity Center in Hanamaulu. As discussed in Chapter II, existing public schools serving the region are Kapaa Elementary, Intermediate and High School, Wilcox Elementary School, and Kauai Intermediate and High School. Immaculate Conception, a private school, is located just south of Hanamaulu.

c. Police Protection

The proposed school service area is served by the Lihue Station of the Kauai Police Department. Police officers are assigned daily to patrol the area which is designated as Beat 44. The Lihue Police Station is approximately 1.4 miles south of Hanamaulu.

d. Fire Protection

The service area is currently served by the Lihue Station of the Kauai Fire Department. The Station has one hose tank and one rescue vehicle and a staff of 5-6 persons on duty 24 hours a day. The Lihue Fire Station is approximately 1.2 miles south of Hanamaulu.

e. Health Care Facilities

Public health facilities serving residents within the service area are Mahelona Samuel Memorial Hospital located in Kapaa and Wilcox Memorial Hospital located in Lihue. The distance between each hospital is approximately five miles. Another health care related facility which serves the area is Hale Hauoli Day Activity Center located in Hanamaulu. The center serves as a day care facility for developmentally disabled adults.

f. Transportation

The service area is served primarily by two roadways - Kuhio Highway and Kuamoo Road. Kuamoo Road is a secondary roadway which intersects Kuhio Highway just north of the Wailua River. Kuhio Highway, a State highway and principal roadway, extends from Lihue to Haena along the North Shore of Kauai. These roadways will serve as major transportation routes for the proposed school.

The Hanamaulu-Ahukini Cutoff Road, scheduled for completion in 1990, is an extension of Kapule Highway and is intended to alleviate heavy traffic conditions at the intersections of Kuhio Highway and Ahukini Road, and Kuhio Highway and Rice Street.

There is no existing public bus transportation service on Kauai. However, bus service for students is assumed to be provided within the proposed service area upon completion of the new school.

Air service on Kauai is centered on Lihue Airport. In 1984, approximately 2.2 million inter-island passengers were recorded departing from or arriving at Lihue Airport while another 20,000 passengers were recorded for overseas travel. Air-borne cargo, inter-island and overseas service, accounted for a total of 138 tons for the same year. Helicopter sightseeing tours have grown in volume in recent years with the Federal Aviation Administration recording approximately 5,000 takeoffs and landings per month during 1986. Hanamaulu is located approximately 1.3 miles north of Lihue Airport.

Nawiliwili Harbor, a deep draft port with container freight facilities, provides overseas freight and inter-island barge services. In 1983, it accounted for about 5 percent of the total freight tonnage (import & export) handled by the State Harbor Systems, or approximately 1.0 million short tons of cargo which include fabricated metal products, sugar, motor vehicles, parts and equipment, and molasses. Nawiliwili Harbor is about 1.5 miles south of Hanamaulu.

D. Infrastructure

1. Water

Water supply to the service area is provided by the Kauai County Department of Water Supply. An extensive system of transmission and distribution mains (which include line sizes of 16, 12, and 8-inches) are located in the service area. Storage facilities include the Puupilo, Kondo and Nonou Tanks serving the Wailua area, and Lihue and Kalepa Tanks serving the Hanamaulu/Kapaia area.

Total water consumption for the 1984-85 period in the Wailua-Kapaa region was 941,885,000 gallons while the Hanamaulu-Lihue region accounted for 746,724,000 gallons for the same time period.

2. Sewerage

Existing sewer systems within the service area consist of County sewer lines and sewage treatment plants and individual cesspools. Homes in Wailua Homestead are serviced by cesspools while Hanamaulu and Kapaia residents are served by existing sewer lines connected to the Lihue Sewage Treatment Plant, which has a design capacity of 1.5 MGD. The existing flow rate is approximately 650,000 gallons per day. Effluent from this treatment plant is discharged in nearby canefields. The Kauai Resort Hotel

and Kahi Lani buildings are serviced by the Wailua Sewage Treatment Plant which has a design capacity of 1.5 MGD. Its existing flow rate is approximately 650,000 gallons per day. Effluent disposal of this treatment plant is by ocean outfall, with partial conveyance to the nearby Wailua Golf Course for irrigation.

3. Electrical/Telephone

Electrical power for residential and commercial use is provided by the Citizens Utilities Company, Kauai Electric Division throughout the proposed service area. High voltage distribution lines connect numerous substations including the Kapaa, Lydgate, and Lihue Substations.

Telephone service for the proposed service area, as for the rest of the State, is provided by Hawaiian Telephone Company.

4. Drainage

Existing storm drainage facilities in the proposed service area consist generally of a network of ditches, swales, and culverts. In the Wailua Homestead area, surface runoff is collected and transported by drainage culverts along Kuamoo Road and discharged into Wailua River. Runoff from Kauai Resort Hotel is conveyed by a drainage culvert to Wailua Golf Course. Storm runoff collected by open ditches and culverts in Hanamaulu and Kapaia are discharged into caneland. In general, the overlying soil in the region affords percolation of rainwater into the ground.

IV. RELATIONSHIP TO PLANS, POLICIES AND CONTROLS

#### IV. RELATIONSHIP TO PLANS, POLICIES AND CONTROLS

##### A. Plans

###### 1. Hawaii State Plan

The Hawaii State Plan establishes a statewide planning system that provides goals, objectives, and policies which detail priority directions and concerns of the State of Hawaii. The proposed project is consistent with the following State objective and policy:

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

###### 2. Hawaii State Education Functional Plan

The State Education Plan is prepared in compliance with Chapter 226, Hawaii Revised Statutes, by the State Department of Education. This State functional plan helps to implement the Hawaii State Plan, advances priority directions for the Department of Education, and improves the quality of education in Hawaii.

The proposed project is consistent with the following State policies, State priority directions, Board of Education concerns, and/or State Education Plan Advisory Committee concerns regarding educational support services:

- o Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.
- o Provide a safe and secure environment for schools and libraries.

###### 3. County General Plan

The General Plan for the County of Kauai (County of Kauai Ordinance No. 461, June 21, 1984) is the "primary policy governing long-range and comprehensive development, use

and allocation of land and water resources within the County". The proposed project will be consistent with goals of the Plan as follows:

- To create opportunities for a greater fulfillment of life through the development of a broad spectrum of educational and cultural pursuits.
- To create opportunities for a greater diversity and stability of employment for residents of Kauai.
- To manage implementation of the General Plan through the development of social and physical infrastructure based on growth targets, priorities and efficient utilization of facilities and services.

In consonance with the land use element of the Plan, land use classifications are delineated on maps at the County Planning Department. General Plan designations for the service area are shown on Figure 17, in Chapter XI.

#### B. Land Use Policies

##### 1. State Land Use Designation

The State Land Use Law regulates the classification and uses of State lands to accommodate growth and development, and to retain the natural resources of the area. All State lands are classified by the State Land Use Commission, with consideration given to the General Plan of the County, as either Urban, Rural, Agricultural, or Conservation.

A major portion of the service area is located within the State Agricultural District. State Land Use District delineations are shown on Figure 16, in Chapter XI. Kalepa Ridge, Hanamaulu Bay, Wailua Golf Course, and the Wailua River State Park are designated as Conservation lands. Portions of Wailua Homestead are designated as Rural, Urban, and Agriculture while the Lydgate Park area, Hanamaulu, and Kapaia are designated as Urban lands.

##### 2. Lihue Development Plan

The County of Kauai's Lihue Development Plan, adopted in 1976, provides physical, social and economic measures which relate specifically to the Lihue community. In addition to the goals and objectives of the General Plan, two goals that appear to provide overall guidance to the implementation of the Lihue Development Plan and with which the proposed development will be consistent are:

- o Preserve Kauai lifestyle
- o Structure planning area so that the various functions reinforce each other and work in harmony

The Development Plan land use designations of the proposed service area are predominantly Agriculture with the exception of Kalepa Ridge and Wailua River, which are Open. Planned uses in the Hanamaulu and Kapaia area are primarily single family residential and also include Public designations for Peter Rayno Sr. Park, the former Hanamaulu School site, and the Kauai Community Correctional Center.

### 3. County Zoning

The Comprehensive Zoning Ordinance (CZO) for the County of Kauai (County of Kauai Ordinance 164, as amended) establishes procedures for the division of the County into land use districts and regulations for the type, size, placement and control of structures within various zoning district classifications. County zoning designations for potential school sites are shown on Figures 18 through 20 in Chapter XI. Necessary approvals for school development are discussed in Chapter XI. Permits and approvals which may be required for school development include a Use Permit, Special Permit, Class IV Zoning Permit or Zoning Amendment. Permit issuance would conform with applicable Standards and Criteria contained in the County's Comprehensive Zoning Ordinance No. 164, as amended.

## C. Environmental Controls

### 1. Special Management Area

The Hawaii Coastal Zone Management Law (Chapter 205A, HRS) charged the Counties with designating and administering Special Management Areas (SMA) along the State's coasts. Any "development," as defined by the law, within the SMA, requires an SMA use permit. The intent of the permit review is to determine if the proposal will have "significant environmental effects" on the SMA with respect to areas of concern such as recreational, historic/archaeological and scenic/open space resources, coastal ecosystems, coastal hazards, economic uses, and managing development.

The County of Kauai regulates development along the shorefront of the coastal zone through its Special Management Area (SMA) permit process. The SMA is delineated on Figure 18, in Chapter XI.

D. Landownership

Approximately 0.9% of the lands in Kauai are owned by the Federal Government while State ownership accounts for 42.8%, County ownership 0.2%, and private ownership 56%.

V. IDENTIFICATION OF CANDIDATE SITES

## V. IDENTIFICATION OF CANDIDATE SITES

### A. Site Selection Methodology

The site selection methodology involves two steps. The first step is a broad assessment of the service area to identify candidate sites warranting closer scrutiny. This assessment is based on a set of minimum criteria established by the DOE and includes such factors as slope, flood and tsunami hazards and existing development. Since much of the service area is in cane production and was found to meet the minimum criteria, additional criteria, including the availability of infrastructure and proximity to a population center, were applied to narrow the field of candidate sites.

The second step is a more detailed evaluation of candidate sites utilizing school site and community criteria formulated by the DOE. Each of the candidate sites is rated "good," "fair," or "poor" with respect to each criteria, all of which are weighed equally. A more detailed description of these criteria and the results of the individual site evaluations are presented in Chapter VI.

To further assess the advantages and disadvantages of each site, cost estimates for land acquisition, on and off-site development and bus subsidies were prepared for each site, as discussed in Chapter VI. Land acquisition cost estimates are based on County property tax assessments. Off-site development costs include estimates for roadway, grading, drainage and landscaping requirements, as well as for utility needs such as sewerage, water, electrical power/communications, and gas. On-site development costs are estimates for providing similar improvements and utilities within each site. Bus subsidy costs are based on the number of students who qualify for bus transportation and the cost for bus service.

### B. Minimum Site Criteria

The site selection process begins with an identification of candidate sites. To assure that selected sites are viable and compatible with the proposed educational facility, the DOE has established minimum site criteria. These were used to screen the service area for potential sites. The minimum site criteria are as follows:

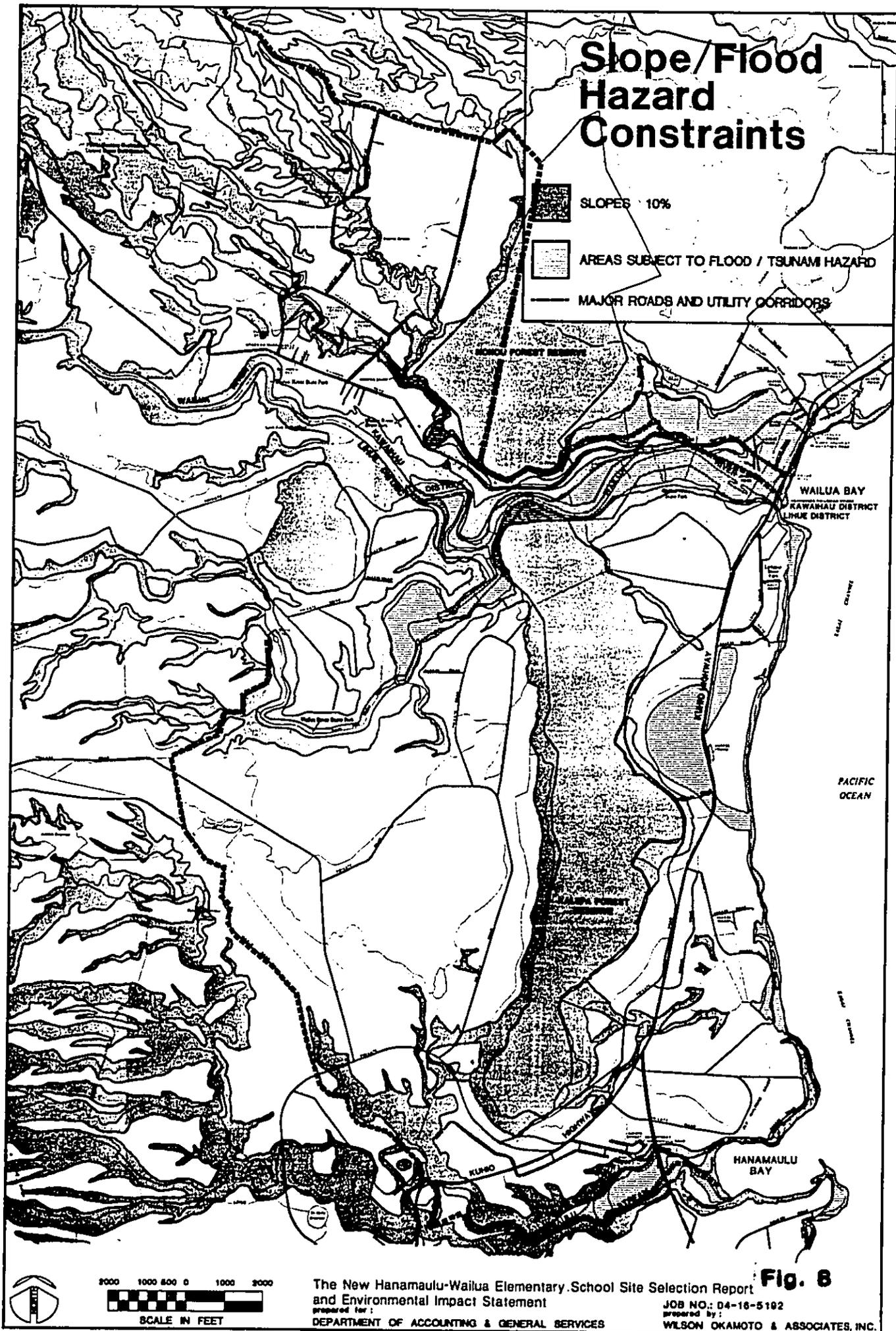
- Acresage: A minimum size of 6 acres is adequate if the site adjoins a County park for which joint usage arrangements can be established;
- Shape: The length to width ratio of the site must not exceed 2.5 to 1;

- Tsunami: The site must not be in a tsunami inundation zone as established by an authorized agency recognized by the State of Hawaii;
- Flood: The site must not be in a major flood plain if adequate drainage provisions cannot be made at reasonable cost;
- Landslide: The site must not be located within a known or potential landslide area;
- Traffic: The site must not be located in an area hazardous from the standpoint of pedestrian and traffic safety unless adequate safety provisions can be made;
- Timing: The acquisition of the site must be possible early enough to allow sufficient construction time to meet DOE's scheduled school opening date;
- Location: The site must be within the ultimate service area;
- Displacement: The site must be obtained without mass relocation of families;
- Historical: The acquisition and development of the site must be such that no buildings or sites designated as historic and deserving of preservation by the State Historic Preservation Office will be destroyed.
- Slope: The site must not be located in an area with slopes greater than ten percent.

C. Additional Criteria

The service area for the new school contains two population centers at its extremes, Hanamaulu and Wailua Homestead. Much of the intervening area is used for sugarcane production. Figure 8 is a composite depiction of the most restrictive criteria, slope and flood hazards. (Flood and tsunami hazards are indicated in detail on Figure 5.) An initial review of potential sites based on the minimum criteria indicates that a substantial portion of the areas planted in cane met the minimum criteria. Undeveloped except for sugarcane production, these fields are relatively flat and free from natural and traffic hazards. Their large size also allows flexibility in delineating an appropriate school site configuration. Moreover, much of the land is owned by the State or under single private ownership, which would facilitate acquisition.

In order to narrow the field of candidate sites, additional criteria were applied, as described below:



- Infrastructure: To minimize costly development of access roads and service connections for utilities, the site should be located near existing roads and utility corridors.
- Proximity to Population Centers: To facilitate pedestrian and vehicular access, the new school should be located near an existing or potential population center. Proximity to population centers can be defined in a geographic and land use context. First, geographic proximity refers to the area relationship of the site to potential student populations. Second, proximity to lands having favorable land use designations, such as the State Land Use Urban designation, or a County residential zoning designation, indicates potential for having a nearby future student population. Moreover, for sites situated on State, Conservation, Agriculture, or Rural designated lands, contiguity with Urban lands establishes a favorable condition for the State Land Use Commission's consideration for redesignating the site to Urban.

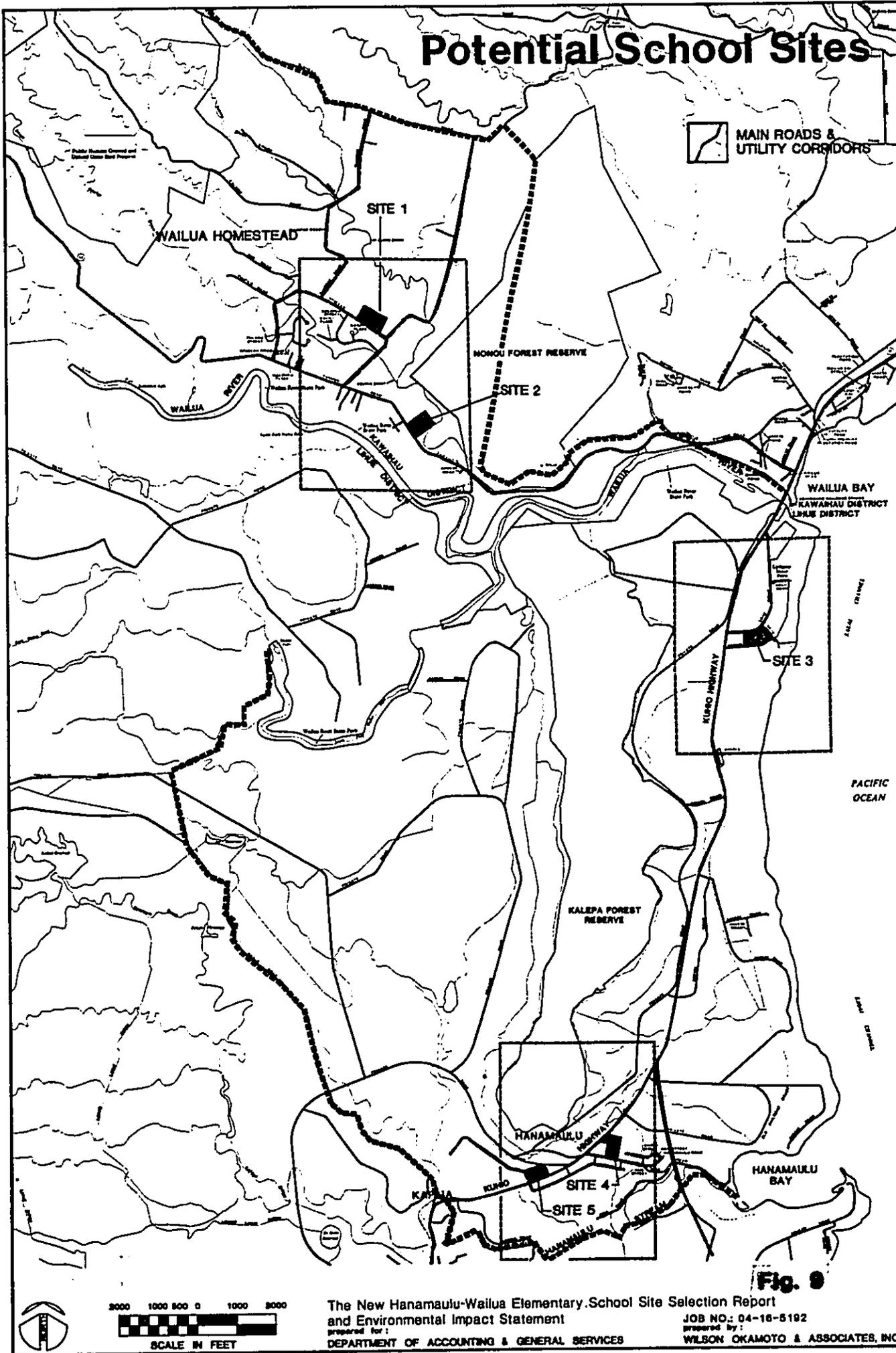
These additional criteria significantly reduced the field of candidate sites. The former criterion limited sites to areas along Kuhio Highway, Kuamoo Road and other arterials which also serve as utility corridors. The latter criterion eliminated the 3.4 mile stretch of canefield between Hanamaulu and Wailua.

#### D. Candidate Sites

Based on the revised minimum criteria, potential school sites in both Hanamaulu and in Wailua Homestead were sought. In Hanamaulu, two areas with land area sufficient to accommodate a new school were identified. See Figure 9. One is a canefield located on the mauka side of Kuhio Highway between Laukona Street and the cane haul road servicing the Lihue Plantation maintenance yard. The other area is a canefield immediately east of the town, on the makai side of Kuhio Highway. In this area, the former Hanamaulu School campus could be incorporated as part of the site.

In the Wailua Homestead area, two potential school sites were located among the residential subdivisions in the hills while the general area for a third site was identified between the Kauai Resort Hotel and the Wailua Golf Course, on the makai side of Kuhio Highway. This area contains both canefields and vacant lands. Although canefields on the mauka side of Kuhio Highway were considered, development of the area was deemed unfeasible since noise from the heavily used cane haul roads and required protection of the Malae Heiau would force the school to be located deep in the canefield and, consequently, increase infrastructure development costs.

# Potential School Sites



The New Hanamaulu-Wailua Elementary School Site Selection Report  
 and Environmental Impact Statement  
 prepared for:  
 DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO.: 04-16-5192  
 prepared by:  
 WILSON OKAMOTO & ASSOCIATES, INC.

Upon selecting viable areas for the alternative school sites, the boundaries of the proposed school were delineated. In this process, the minimum site criteria as well as the detailed site evaluation criteria were considered to optimize the advantages of each site. The field of candidate sites is as follows:

1. Site 1 - Wailua Homestead Mauka Site

Identified as TMK 4-2-02: por. 59, this 8.0-acre site is delineated within a 30.18 acre undeveloped parcel, owned by Violet T.C. Ching. See Figure 10. The site is a pasture surrounded primarily by other pastures and low density residential development. Wailua Homestead Park, an active recreational facility with ballfields, is located approximately 500 feet to the east.

In consideration of flood prone areas in the northern portion of the parcel, the potential site is delineated along the southern portion, fronting Opaekaa Road, the proposed accessway. Opaekaa Road has a 40 foot wide right-of-way. Opaekaa Road connects to Kamalu Road, which intersects Kuamoo Road approximately 2.4 miles mauka of Kuhio Highway.

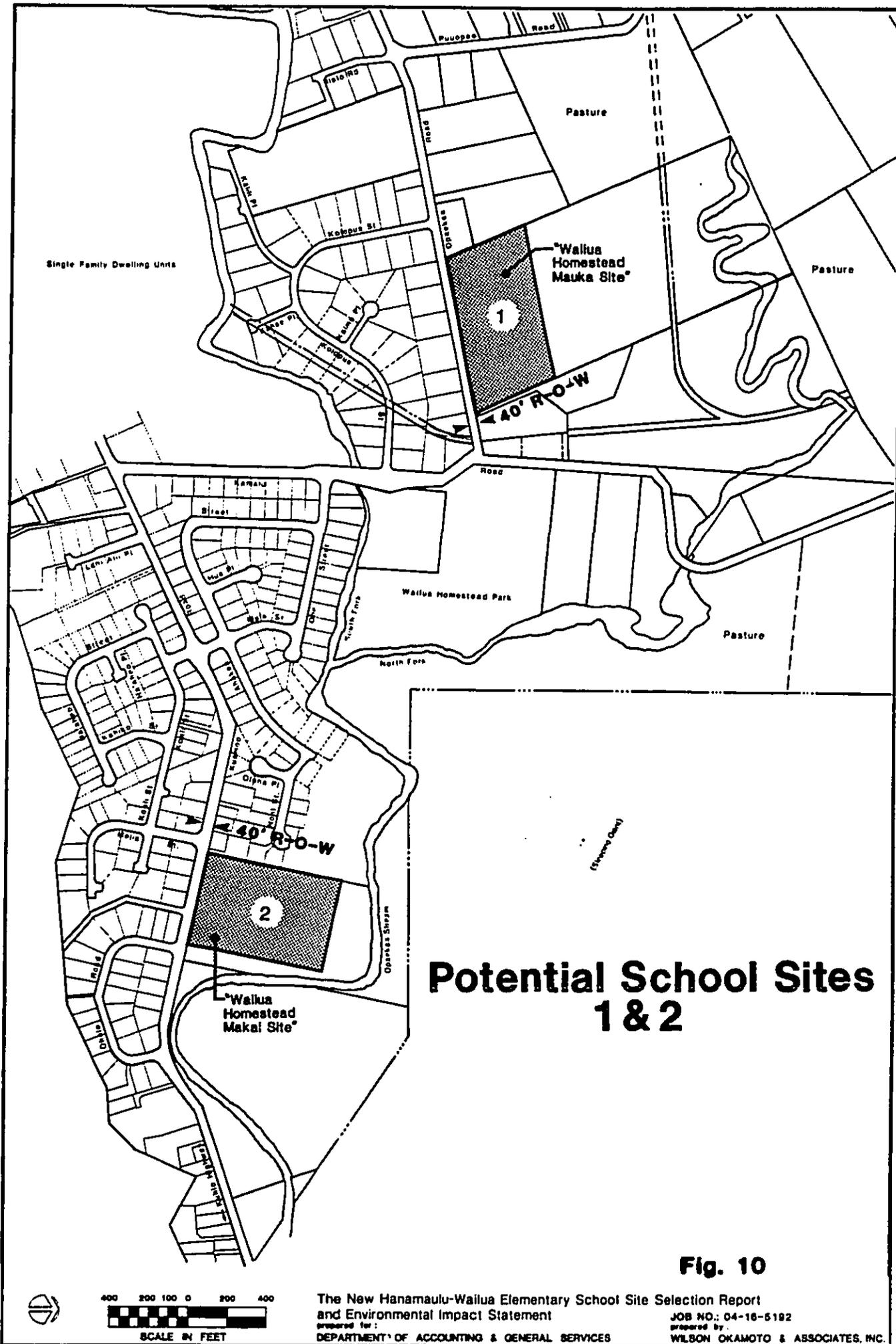
2. Site 2 - Wailua Homestead Makai Site

This site, also an undeveloped pasture, is identified as TMK 4-2-03: por. 12 and is owned by Hale Kauai, Ltd. The site encompasses 8.0 acres of the 39.8 acre parcel. Since the area along the banks of Opaekaa Stream, which runs in the northern and eastern portion of the parcel, are flood prone, the potential school site was located in the southwestern corner, adjacent to Kuamoo Road, the proposed accessway. The right-of-way width of Kuamoo Road is 40 feet. See Figure 10.

Surrounding land uses consist primarily of residential developments to the west and south while the Wailua River State Park encompass much of the forested areas to the west. Kuhio Highway is approximately 1.9 miles makai of the site.

3. Site 3 - Wailua Golf Course Site

In selecting this site, several factors were considered, including the distance from the highway to minimize noise impacts, and distance from the County's sewage treatment plant to minimize potential odor problems. Also, the actively farmed canefields were avoided to assure compatibility with land use and zoning designations.



Currently vacant and overgrown with grasses and shrubs, the site, identified as TMK 3-9-06:por. 11, lies along Leho Street. See Figure 11. The 11.48 acre parcel is owned by the State of Hawaii and currently leased to Michael J. Fernandes under Revocable permit No. 5-4842. In consideration of a drainage easement that bisects the parcel, and to set the school away from Kuhio Highway, the eastern boundary was aligned with Nehe Road. Surrounding land uses include canefields to the north and across Leho Drive; the remaining vacant land to the west; the Wailua Golf Course, adjacent to the south; and, the Kaha Lani condominium across and beyond Nehe Road, to the east. Access to the site is gained via Leho Road which turns off of Kuhio Highway approximately 600 feet to the west. Leho Road and Kuhio Highway rights-of-way measure 70 and 60 feet, respectively.

4. Site 4 - Former Hanamaulu Elementary School Site

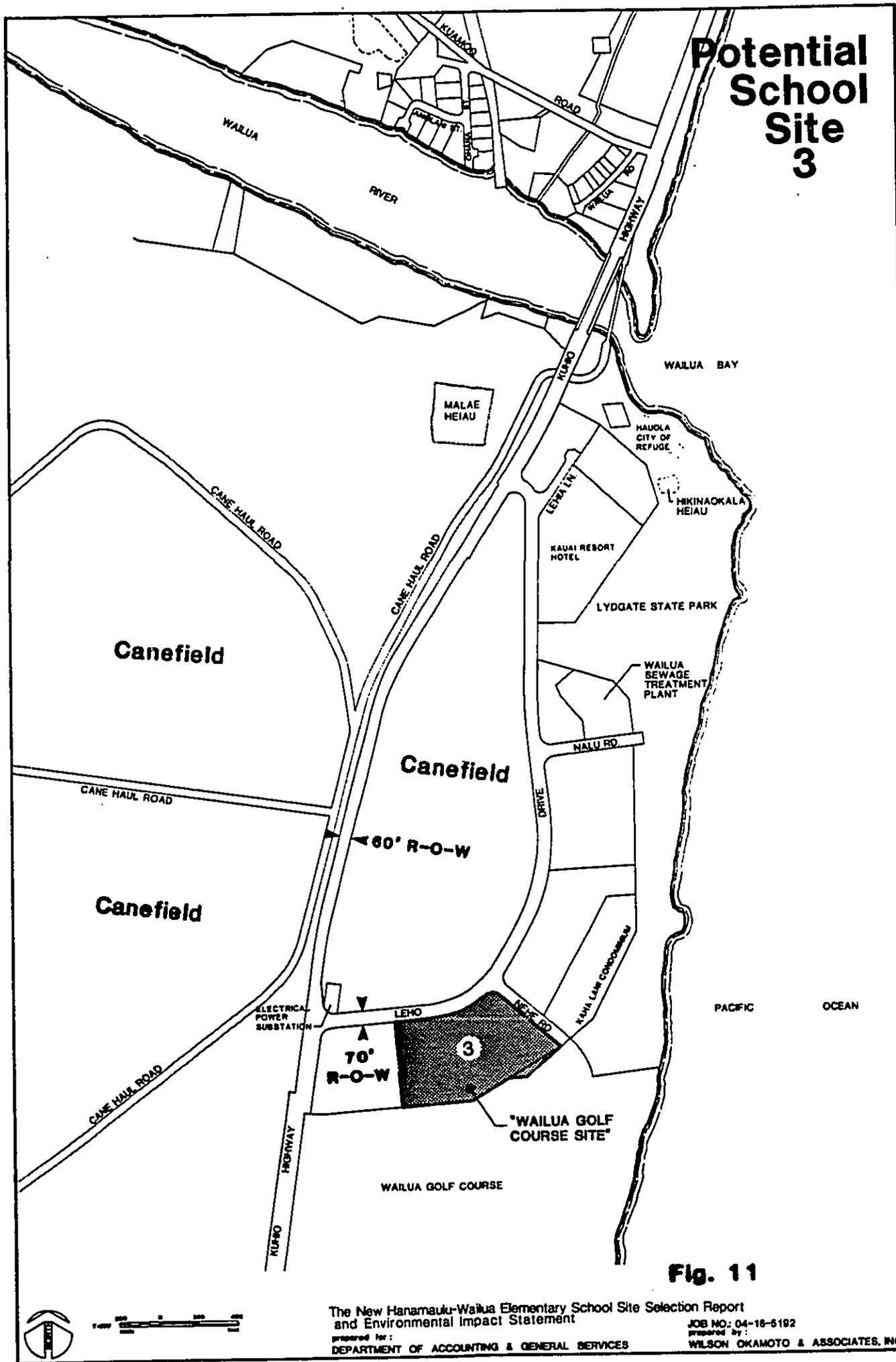
Incorporation of the Former Hanamaulu Elementary School campus in this site offers the advantage of using Hanamaulu Road as the primary access as opposed to the heavily traveled Kuhio Highway. The former school campus is currently operated as an activity center (Hale Hauoli Day Activity Center) for multiple uses including a care facility for developmentally disabled adults, headstart program for youngsters, adult education, and other community-related activities. The site is owned by the State of Hawaii and is identified as TMK 3-7-3:6. See Figure 12. Cane land to the north, which is zoned residential district and therefore likely to be developed in the near future, would comprise the balance of the required acreage for the proposed school. The parcel to be annexed is owned by Lihue Plantation Company and identified as TMK 3-7-03:portion of 20. The total area of the potential site is 6.3 acres. Initial contact with the County of Kauai Department of Public Works, Division of Parks and Recreation, indicate the possibility of sharing the nearby Peter Rayno Sr. Park.

Single family residences line Hanamaulu Road across the school site. Kuhio Highway passes to the west, beyond which are plantation residences housing 12 families.

Access to the site is via Hanamaulu Road, which turns off of Kuhio Highway, approximately 700 feet from the school entrance. Kuhio Highway can also serve as an accessway to a school at this site. Rights-of-way widths of Hanamaulu Road and Kuhio Highway are 40 and 95 feet, respectively.

5. Site 5 - Lihue Plantation Yard Site

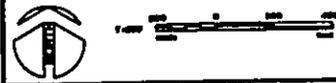
Planted in sugar cane, this 7.36 acre site fronts Kuhio Highway on one side and lies behind a row of single family



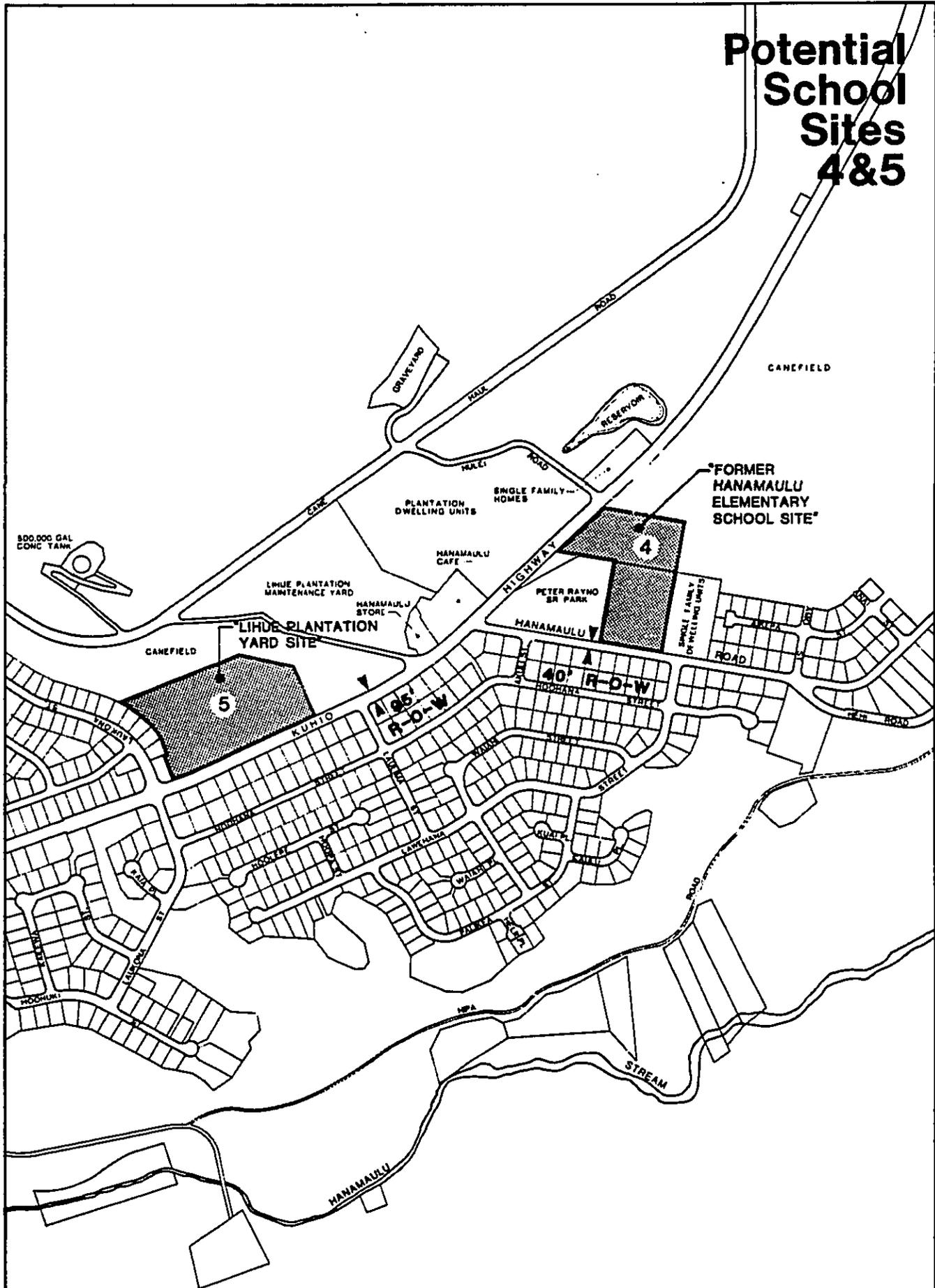
**Fig. 11**

The New Hanalei-Wailua Elementary School Site Selection Report  
 and Environmental Impact Statement  
 prepared for:  
 DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO: 04-18-5192  
 prepared by:  
 WILSON OKAMOTO & ASSOCIATES, INC.



# Potential School Sites 4 & 5



**Fig. 12**

The New Hanamaulu-Waiua Elementary School Site Selection Report  
and Environmental Impact Statement

prepared for:  
DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO: 04-18-5192  
prepared by:  
WILSON OKAMOTO & ASSOCIATES, INC.

residences along Laukona Street. See Figure 12. The parcel in which the site would be situated is identified as TMK 3-8-02:por. 9 and is owned by the Lihue Plantation Company. The site was delineated next to existing single family residences so as not to create pockets of cane lands that would be difficult to access.

A heavily used cane haul road lies to the west, beyond a buffer strip of cane field. To the north, also beyond a buffer strip of cane field is a maintenance road serving a plantation maintenance yard operated by the Lihue Plantation Company. Access to the site would be from Kuhio Highway which has a right-of-way width of 95 feet.

VI. EVALUATION OF CANDIDATE SITES

## VI. EVALUATION OF CANDIDATE SITES

### A. Evaluation Criteria

Having met the minimum site criteria described in the preceding chapter, the candidate sites were evaluated against three separate evaluation considerations, as follows:

- o School Site Criteria
- o Community Criteria
- o Cost Considerations

School site criteria are physical parameters which identify site development and school operational constraints and opportunities. Factors considered under school site criteria are environmental characteristics, roadway and utilities, and access.

Community criteria are factors which enable evaluation of school development in terms of governmental/land use compatibility and the relationship of the school to its surrounding community.

Finally, cost considerations involve an assessment of school development and operational costs. Factors addressed in the cost evaluation include land acquisition, off-site improvement costs, on-site improvement costs, and bus subsidy costs.

School site criteria and community criteria and their associated rating scales are outlined below.

#### 1. School Site Criteria

##### a. Environmental Characteristics

###### o Highway Noise:

Good - The site is more than 1,500 feet away from major highways, freeways and truck routes. Natural ventilation may be used without introducing highway noise in the classroom.

Fair - The site is 500 feet to 1,500 feet away from major highways, freeways and truck routes to keep the motor vehicular noise down to a level where normal conversation can be heard.

Poor - The site is within 500 feet of a major highway, freeway or truck route. Air conditioning may be required as windows would remain closed to exclude noise.

o Aircraft Noise:

Good - The site lies outside of the 55 Ldn noise contour projected for the service life of the facility as developed through the Federal Aviation Administration Part 150 Noise Compatibility Program for Lihue Airport.

Fair - The site lies between the 55 Ldn and 60 Ldn noise contours.

Poor - The site lies within the 60 Ldn noise contour.

o Industrial and Agricultural Nuisances:

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 but well within the limits of human tolerance.

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

o Rainfall:

Good - The site has a median annual rainfall less than 30 inches. Walkways and playcourts may remain uncovered.

Fair - The site has a median annual rainfall between 30 inches to 39.9 inches.

Poor - The site has a median annual rainfall greater than 40 inches. Walkways and playcourts must be covered, in accordance with DOE standards.

o Foundation: (University of Hawaii Land Study Bureau Urban Land Classification Soil Character Code)

Good - Soil Character Codes, I, II, VIII, and IX. These soils are only slightly susceptible to expansion, have good bearing capacity and are well drained.

Fair - Soil Character Codes, III, IV, VI, and VII. Soils coded III and IV, sometimes referred to as "adobe," are susceptible to expansion and contraction but have good bearing capacity if properly insulated to maintain relatively constant moisture content. Soils coded VI and VII are coral sands which are not susceptible to expansion and will provide good bearing strength if the sands are well contained.

Poor - Soil Character Code V. These are soils with poor bearing capacity and susceptible to shrinkage and subsidence on drying.

o Soil:

Good - The site is composed of non-rocky soil with a depth greater than 10 feet or coral or rocky soil with a depth greater than 15 feet. These soils would facilitate installation of underground utilities, lot grading and road building.

Fair - The site is composed of non-rocky soil with a 6 to 10-foot depth or coral or rocky soil with a depth of 11 to 15 feet.

Poor - The site is composed of (1) non-rocky soil with a 0 to 5-foot depth or (2) coral or rocky soil with a depth of less than 11 feet or (3) marshy soil or (4) lava.

o Natural Beauty:

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

Fair - The site generally lacks natural beauty but still has the potential for beautification through proper landscaping. The site is not crossed by overhead lines.

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

b. Roadways and Utilities

o Adequacy of Roadways:

Good - The site has adequate roadways to meet ultimate school needs. The minimum road right-of-way required is 56 feet.

Fair - The site is served by roadways requiring widening or other improvements to meet the interim and ultimate needs of the school. The minimum road right-of-way required is 44 feet.

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

o Adequacy of Water Service:

Good - The site has adequate water pressure and capacity available to meet ultimate school needs.

Fair - The existing water service is insufficient but adequate service can be provided by the addition of transmission improvements and/or increasing storage capacity which will meet interim and ultimate needs of the school.

Poor - The site has inadequate water service and will require extensive development or extension of a water system, including source development, to specifically meet school needs.

o Adequacy of Sewer Service:

Good - The site has, or is proximate to, sewer lines which are available to service the school.

Fair - The site will have adequate sewer service which can be developed without the need for extensive improvements to serve the school.

Poor - The site has no sewer service and will require extensive system development or extension of sewerlines to meet the school needs.

o Adequacy of Drainage Facilities:

Good - The site has adequate drainage facilities available to meet ultimate school needs.

Fair - The site may be connected to off-site drainage facilities to serve interim and ultimate needs of the school.

Poor - The site requires off-site drainage facility improvements and may require the development of a drainage system to specifically meet school needs.

o Adequacy of Power and Communications:

Good - The site has, or is proximate to, adequate existing power and communications lines which are available to service the school.

Fair - The site requires some off-site improvements which will provide for adequate power and communications to serve 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 school needs.

c. Accessibility

o Pedestrian Access:

Good - The site has pedestrian access from three sides.

Fair - The site has pedestrian access from two sides.

Poor - The site has pedestrian access from only one side.

o Pedestrian Safety:

Good - Adequate and safe paved walkways/shoulders to the site are available.

Fair - Safe walkways/shoulders to the site may be provided along the school access road.

Poor - The site may require traffic signals and/or pedestrian overpasses in addition to walkway/shoulder improvements.

o Automobile Access:

Good - The site has roadways along one short side and one long side.

Fair - The site has roadways along one long side or two short sides.

Poor - The site has a roadway only along one short side.

o Bus Service:

Good - The site is served by a major bus line running through the service area.

Fair - A major bus line passes within reasonable (0.5 mile) distance of the site.

Poor - No bus service is available.

o Traffic Flow:

Good - The site is proximate to a major roadway (highway) passing through the service area.

Fair - The site is adjacent to a secondary through street.

Poor - Access to the site is via a dead end street.

2. Community Criteria

a. Government

o State Land Use District Map Designation:

Good - The site is within the Urban District.

Fair - The site is within the Rural District.

Poor - The site is in the Agricultural or Conservation District.

o County General Plan Designation:

Good - The site is designated Urban Residential, Rural Residential or Public, within which school use is consistent.

Fair - The site is designated for apartment or park use.

Poor - The site is designated for hotel, industrial, agricultural, or open space use.

o County Zoning Designation:

Good - The site is zoned commercial, within which schools are a permitted use.

Fair - The site is zoned Special Treatment (Public) and, requires a Use Permit for school development.

Poor - The site is zoned for uses other than commercial or Special Treatment (Public). A zoning change is required.

o Agricultural Land Classification: (University of Hawaii Land Study Bureau Agricultural Land Classification Productivity Rating).

Good - The site is located on land with very poor (E) productivity rating.

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

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

b. Community Effects

o Interference with Institutions:

Good - The site is greater than 0.5 mile from hospitals, rest homes, and any other institution which may be disturbed by large groups of students.

Fair - The site is far enough away (0.25 to 0.5 mile) from any hospital, rest home, etc., so that any disturbance to the institution by the activities of the proposed school will be minimal.

Poor - The site is adjacent to a hospital, rest home, or similar institution which may be disturbed by the activities of the proposed school.

o Existing Land Use: (In changing the existing use of the site to school use, there should be a minimal amount of disruption to the existing pattern of living within the community).

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.

o Proximity to Commercial Centers:

Good - The site is more than a half mile from those commercial enterprises (bowling alleys, video arcades, pool halls, stores, etc.) that may attract students during school hours.

Fair - The site is reasonably far (0.25 to 0.5 mile) from potentially distracting commercial enterprises.

Poor - The site is within a quarter mile of potentially distracting commercial enterprises.

o Aesthetic Value:

Good - The site is not an aesthetic asset to the community and will not interfere with scenic vistas when it is developed as a school.

Fair - The site has little aesthetic value to the community or may partially obstruct scenic vistas when it is developed as a school.

Poor - The site is an aesthetic asset to the community or will obstruct scenic vistas when it is developed as a school.

o Location:

Good - The site is within reasonable walking distance (0.75 mile) of 75% of the students.

Fair - The site is within reasonable walking distance of 50% of the students.

Poor - The site is within reasonable walking distance of less than 50% of the students.

B. Summary of Evaluations

This section summarizes the results of the evaluation based on school site criteria, community criteria, and cost considerations. Evaluation ratings and detailed explanations of cost considerations are presented in Appendix A. It should be

noted that the intent of the Site Selection Study is not to recommend a single preferred site. Rather, results are intended for use as a basis for discussing the relative advantages and disadvantages of each site in order to facilitate selection of a preferred site.

#### 1. Summary of School Site Criteria Evaluation

The results of the school site criteria evaluation are summarized in Table 8.

With respect to environmental considerations, all sites were rated poor due to the high rainfall they receive and all would, consequently, require consideration of covered walkways and playcourts. The Wailua Homestead Makai Site (Site 2) and the Lihue Plantation Yard Site (Site 5) are also exposed to traffic noise from nearby vehicular thoroughfares while the Plantation Yard site would additionally be subjected to agricultural nuisances and noise. Site 3, the Wailua Golf Course Site, may be subject to intermittent agricultural nuisances. With regard to roadways and utilities, the Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) would require the most extensive development of infrastructure. These sites are inadequately served by water, have no County sewer system and are proximate to roadways with inadequate rights-of-way.

Accessibility to all five sites is hampered by the absence of municipal bus service. Paved shoulders are available only along Kuhio Highway in the vicinity of the Hanamaulu Sites (Sites 4 and 5). It is anticipated, however, that traffic safety can be achieved at all sites (see Section VII.B.3.b, Impacts to Local Roadways). The other access criteria relate to the number of sides from which each site is accessible by pedestrians and automobiles. In this regard, only the Wailua Golf Course Site (Site 3) and the Former Hanamaulu Elementary School Site (Site 4) have automobile access available along two sides. All of the other sites are only fronted by a single road. Pedestrian access is similarly limited to these roads. The Former Hanamaulu Elementary School Site (Site 4) is also accessible by pedestrians from the adjacent Peter Rayno Sr. Park.

#### 2. Summary of Community Criteria Evaluation

The results of the community criteria evaluation is summarized in Table 9.

**TABLE 8**  
**SUMMARY OF SCHOOL SITE CRITERIA EVALUATION**

<u>Criteria Evaluation</u>	<u>Wailua Homestead Mauka Site (1)</u>	<u>Wailua Homestead Makai Site (2)</u>	<u>Wailua Golf Course Site (3)</u>	<u>Former Hanamaulu Elem Sch. Site (4)</u>	<u>Lihue Plantation Yard Site (5)</u>
<b><u>Environmental</u></b>					
Good	6	5	2	4	3
Fair	0	0	4	2	1
Poor	1	2	1	1	3
<b><u>Roadway &amp; Utilities</u></b>					
Good	1	1	2	2	3
Fair	1	1	2	3	1
Poor	3	3	1	0	1
<b><u>Accessibility</u></b>					
Good	0	0	2	2	2
Fair	3	1	1	1	1
Poor	2	4	2	2	2
<b><u>TOTALS</u></b>					
Good	7	6	6	8	8
Fair	4	2	7	6	3
Poor	6	9	4	3	6

TABLE 9  
SUMMARY OF COMMUNITY CRITERIA EVALUATION

<u>Criteria Evaluation</u>	<u>Wailua Homestead Mauka Site (1)</u>	<u>Wailua Homestead Makai Site (2)</u>	<u>Wailua Golf Course Site (3)</u>	<u>Former Hanamaulu Elem Sch. Site (4)</u>	<u>Lihue Plantation Yard Site (5)</u>
<u>Governmental</u>					
Good	0	2	2	2	0
Fair	1	0	1	0	0
Poor	3	2	1	2	4
<u>Community Effects</u>					
Good	3	3	4	3	4
Fair	0	0	0	2	1
Poor	2	2	1	0	0
<u>TOTALS</u>					
Good	3	5	6	5	4
Fair	1	0	1	2	1
Poor	5	4	2	2	4

All of the sites would require a County zoning change. Governmental land use controls are most prohibitive at both the Wailua Homestead Mauka Site (Site 1), and the Lihue Plantation Yard Site (Site 5) which are within the State Land Use Agricultural District, and designated Agriculture in the County General Plan. In addition, the Plantation Yard Site is also rated as valuable agricultural land. The Wailua Golf Course Site (Site 3) is somewhat more compatible with State and County land use designations than the other two sites, the Former Hanamaulu Elementary School Site (Site 4) and the Wailua Homestead Makai Site (Site 2).

Potential effects of developing the school at any of the five sites are not likely to be adverse to the community. No interference with institutions such as hospitals and convalescent homes is anticipated and students are not likely to be distracted by the presence of nearby commercial centers. The Former Hanamaulu Elementary School Site (Site 4) and the Lihue Plantation Yard Site (Site 5) are within walking distance for 50% of the students in the service area. The Wailua Homestead Mauka Site (Site 1) and Makai Site (Site 2) are within walking distance for approximately 35% and 40% of the students, respectively. The Wailua Golf Course Site (Site 3) is beyond walking distance of virtually all students. Displacement of existing uses is only a concern at the Former Hanamaulu Elementary School Site (Site 4), which is occupied by several community service organizations. The other sites are not developed with structures. With respect to aesthetic value to the community, development of either the Wailua Homestead Mauka and Makai Site (Sites 1 and 2) may result in the loss of a community open space resource.

### 3. Summary of Cost Considerations

A review of the land acquisition, development and busing costs for each site reveals significant differences. See Table 10. A detailed explanation of cost parameters is presented in Appendix A. With respect to off-site improvements, the two sites in Wailua Homestead (Sites 1 and 2) would incur higher costs for water service development than the Wailua Golf Course Site (Site 3) and the Former Hanamaulu Elementary School Site (Site 4). The Lihue Plantation Yard Site (Site 5) would not require off-site water service improvements. The Hanamaulu sites (Sites 4 and 5) and the Wailua Golf Course Site (Site 3) would require other off-site infrastructure and utility development. On-site costs for sewerage at the Wailua Homestead sites (Sites 1 and 2) would be higher in relation to the other sites due to the probable need to provide wastewater treatment works, in accordance with Act 282, SLH 1985, as amended by Act 302, SLH 1986. The presently developed Wailua

**TABLE 10**  
**COST ESTIMATE SUMMARY\***

	Wailua Homestead Mauka Site (1)	Wailua Homestead Makai Site (2)	Wailua Golf Course Site (3)	Former Hanamaulu Elementary School Site (4)	Lihue Plantation Yard Site (5)
<b><u>Development Costs</u></b>					
Off-Site Improvements	\$0.95	\$0.95	\$0.60	\$0.08	\$0.07
On-Site Improvements	<u>0.95</u>	<u>0.95</u>	<u>0.84</u>	<u>0.85</u>	<u>0.89</u>
Subtotal	\$1.90	\$1.90	\$1.44	\$0.93	\$0.96
Contingencies (20%)	0.38	0.38	0.29	0.19	0.19
Land Acquisition	0.08	0.08	0.13	0.17	0.01
Bus Subsidy Costs	1.70	1.80	2.67	1.47	1.47
<b>Total Estimated Cost</b>	<b>\$4.06</b>	<b>\$4.16</b>	<b>\$4.53</b>	<b>\$2.76</b>	<b>\$2.63</b>

\*Costs, expressed in millions of 1987 dollars, are for planning evaluation purposes only.

Golf Course Site (Site 3) would incur the least cost for on-site improvements. Busing subsidy costs range from \$1.47 million for the two Hanamaulu sites to \$2.67 million for the Wailua Golf Course Site (Site 3) which is beyond walking distance for virtually all students. The Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) would each incur similar costs as they are situated in areas where approximately 35-40% of the students are within reasonable walking distance.

The estimated land acquisition cost associated with each site ranges from \$0.01 million for the agriculturally zoned Lihue Plantation Yard Site (Site 5) to \$0.17 million for the urban zoned Former Hanamaulu Elementary School Site (Site 4).

#### 4. Overall Evaluation Summary

Overall results obtained from the criteria evaluation and cost estimates are summarized in Table 11.

**TABLE 11**  
**SUMMARY OF CRITERIA EVALUATION AND COST ESTIMATES\***

	Wailua Homestead Mauka Site (1)	Wailua Homestead Makai Site (2)	Wailua Golf Course Site (3)	Former Hanamaulu Elementary School Site (4)	Lihue Plantation Yard Site (5)
School Site Criteria Total (G)	7	6	6	8	8
(F)	4	2	7	6	3
(P)	6	9	4	3	6
Community Site Criteria Total (G)	3	5	6	5	4
(F)	1	0	1	2	1
(P)	5	4	2	2	4

G = Good  
F = Fair  
P = Poor

**Cost Considerations (cost expressed in millions of 1987 dollars)**

**Development Costs**

Off-Site Development	\$0.95	\$0.95	\$0.60	\$0.08	\$0.07
On-Site Development	<u>0.95</u>	<u>0.95</u>	<u>0.84</u>	<u>0.85</u>	<u>0.89</u>
Subtotal	\$1.90	\$1.90	\$1.44	\$0.93	\$0.96
Contingencies (20%)	0.38	0.38	0.29	0.19	0.19
Land Acquisition	0.08	0.08	0.13	0.17	0.01
Bus Subsidy Costs	1.70	1.80	2.67	1.47	1.47
<b>Total Estimated Cost</b>	<b>\$4.06</b>	<b>\$4.16</b>	<b>\$4.53</b>	<b>\$2.76</b>	<b>\$2.63</b>

\*Cost estimates are intended to provide relative cost requirements for each site.

VII. PROBABLE IMPACTS AND MITIGATIVE MEASURES

## VII. PROBABLE IMPACTS AND MITIGATIVE MEASURES

### A. Short-Term Site Impacts

This section describes anticipated short-term impacts which may affect candidate sites or lands proximate to the candidate site as a result of the school development. Short-term impacts are those associated with construction activities such as grading, utility installation, construction of structures and landscaping.

The significance of short-term impacts for the five candidate sites will depend on the types of uses nearby each of the sites. The Former Hanamaulu Elementary School Site (Site 4), for example, is situated near a developed residential neighborhood. In this regard, construction activities at this site may result in a relatively higher degree of disruption and nuisance.

The Wailua Golf Course Site (Site 3), on the other hand, is located in a less developed area where impacts to the immediate surrounding environs may not be as great.

The following sections describe, in general, the anticipated noise, air quality, water quality, erosion, traffic, public health and safety, and archaeological impacts associated with construction.

#### 1. Noise

Noise levels will increase during construction. Particularly sensitive are residences proximate to the project sites such as in Hanamaulu and Wailua Homestead. Noise will be generated by construction equipment, including heavy vehicles required to excavate and remove spoil material and import construction materials, and other power equipment.

It shall be the contractor's responsibility to minimize construction noise impacts through compliance with all applicable regulations. In this regard, the contractor shall be responsible for properly maintaining all construction equipment to minimize noise during construction operations. Construction activities will be limited to daylight hours.

#### 2. Air Quality

Ambient air quality is expected to temporarily decrease as a result of dust generated during construction activities, particularly during grading operations. In keeping with State Department of Health and County rules and ordinances, the contractor will be required to implement measures minimizing airborne particulates. Adherence to approved

erosion control plans and use of methods such as water sprinkling will reduce the potential for adverse air quality impacts during site work.

Emissions from construction equipment could also degrade ambient air quality. With proper maintenance by the contractor, however, the adverse impacts of emissions from equipment can be minimized.

### 3. Water Quality

Construction of the proposed elementary school development should not adversely affect the water quality of the area. The Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) are situated proximate to the Opaekaa Stream and its north tributary, the Kalama Stream. Appropriate erosion control practices such as the use of interceptor ditches and sediment ponds, will be implemented during site work, in accordance with State and County erosion control standards, to minimize adverse water quality impacts. In addition, chemicals, soils and debris will be prevented from entering the aquatic environment in excessive amounts during landscaping and construction activities.

### 4. Traffic

During construction, trucks, heavy equipment and other construction-related vehicles will use existing roads to haul away and import materials. Local traffic along local roadways may occasionally encounter minor delays. Of short duration, such delays will be primarily limited to periods of vehicle ingress and egress to and from the project site. The contractor shall be responsible for providing necessary traffic controls and precautions to maintain traffic safety on roadways bordering the construction site.

### 5. Public Health and Safety

Necessary measures to assure public health and safety will be provided throughout all phases of construction. During non-work hours (nights, weekends, holidays) construction areas will be secured by adequate safety signs and other safety devices as required by State and County regulations.

### 6. Archaeology

There are no known archaeological sites within or proximate to the candidate sites. However, recent Hawaiian archaeological research indicates the possibility of subsurface archaeological remains in areas such as the candidate school sites. Therefore, an archaeological reconnaissance survey will be conducted immediately after a

school site is selected. If historic sites are discovered, mitigation measures will be discussed with the State Department of Land and Natural Resources (DLNR) and completed prior to commencing any construction activity.

7. Flora/Fauna

There are no known rare or endangered species of flora or fauna in or around any of the candidate sites.

8. Economy

The short-term economic impacts resulting from construction include expansion of job opportunities to local construction personnel. Local material suppliers and retail businesses may also benefit from the increased construction activities.

B. Long-Term Impacts

1. Flora

No rare or endangered species of flora are known to exist at any of the candidate sites. Any loss of vegetation due to necessary clearing and grubbing will be effectively mitigated by landscaping of the new school campus.

2. Fauna

No rare or endangered species of fauna are known to inhabit any of the five candidate sites. Impact to existing fauna is anticipated to be minimal and unavoidable. Landscaping associated with new school development should provide an adequate nesting and feeding environment for the birds that are commonly found within the area. Displacement of mammals such as mice and rats is not regarded as an adverse impact.

3. Traffic

a. Impacts Along Kuhio Highway

Development of the proposed Hanamaulu-Wailua Elementary School is not anticipated to result in significant adverse impacts to traffic conditions along Kuhio Highway, regardless of which site is selected. Anticipated school traffic generation is not considered significant in comparison to existing and projected volumes along the highway.

A level of service analysis was conducted along Kuhio Highway for each of the candidate sites to determine traffic effects of new school development. For the purpose of this analysis, existing traffic conditions

were projected to establish 1990 traffic conditions. A level of service (LS) assessment was conducted along sections of Kuhio Highway which would serve the proposed school. Calculation of the level of service of a given roadway permits evaluation of prevailing and projected roadway and traffic conditions.

Six levels of service, levels A through F, define the full range of driving conditions from best to worst, in that order. See Table 12. These levels of service qualitatively measure the effect of such factors as travel time, speed, cost, and freedom to maneuver, which, in combination with other factors, determine the quality of the service that any given facility provides to the user under the stated conditions. (Wright, Paul H., and Radnor J. Paquette, 1979).

Traffic volume is the number of vehicles that pass along a roadway or traffic lane per unit of time. Traffic volume as used herein, is expressed in vehicles per hour (vph).

Assumptions used in the capacity analysis are as follows:

1. Traffic will enter and exit the school sites between 7:00 to 8:00 A.M. and 2:30 to 3:30 P.M.
2. Traffic volumes projected to 1990 based on consideration of historical traffic data.
3. The Hanamaulu-Ahukini Cutoff Road will be completed by 1990.

The existing and projected volumes are 1983 or 1985 volumes projected to the years 1986 and 1990, respectively. School volume refers to the volume of traffic anticipated to be generated by the new school's buses, staff and teachers.

The projected volume added to the school volume (projected + school volume), therefore, represents the total volume expected in the year 1990 with the newly opened school for the given roadway section. The projected level of service reflects the projected roadway and traffic conditions for the year 1990. The projected + school level of service indicates the roadway and traffic conditions anticipated for 1990 with the opening of the new Hanamaulu-Wailua Elementary School.

TABLE 12

LEVELS OF SERVICE CHARACTERISTICS

Level of Service	Traffic Flow Description	Remarks
A	Free flow	Low densities with no restrictions due to traffic conditions
B	Stable flow	Slight restriction of driver freedom
C	Stable flow	More marked restriction on the driver's selection of speed and reduced ability to pass
D	Approaching unstable flow	Little freedom for driver maneuverability though operating speeds are still tolerable
E	Unstable flow	Low operating speeds and volumes near or at capacity
F	Forced flow	Traffic jam; frequent interruptions and breakdown of flow, volumes below capacity with low operating speeds

Source: Adapted from Wright, Paul H. and Paquette, Radnor J., Highway Engineering, Fourth Edition, 1979.

Traffic conditions along Kuhio Highway near the Kuamoo Road accessway to the Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) are anticipated to be within the level of service B designation during morning hours without development of the proposed school. The level of service F designation is anticipated during afternoon hours, with or without development of the new school. See Table 13. Morning traffic conditions would be characterized by stable flow, with only a slight restriction of driver freedom. Traffic jams with frequent interruptions and breakdown of flow would be characteristic of afternoon traffic. Traffic conditions anticipated with development of the school would be within the C designation during morning hours. Morning traffic conditions would be characterized by stable flow with restriction on the driver's selection of speed and reduced ability to pass.

**TABLE 13**  
**TRAFFIC CHARACTERISTICS ALONG KUHIO HIGHWAY NEAR THE**  
**KUAMOO ROAD ACCESSWAY TO THE WAILUA HOMESTEAD**  
**MAUKA AND MAKAI SITES FOR EXISTING AND**  
**ANTICIPATED 1990 CONDITIONS**

	<u>7:00-8:00 AM</u>	<u>2:30-3:30 PM</u>
1983 Volume (vph)	443	794
Existing (1986) Volume (vph)	484	867
Existing (1986) LS	B	F
<hr/>		
Projected (1990) Volume (vph) without school	545	976
Projected (1990) LS without school	B	F
<hr/>		
Projected (1990) Volume (vph) with school	587	a
Projected (1990) LS with school	C	a

vph - Vehicles per hour

LS = Level of Service

<sup>a</sup>Conditions assumed to be within the level of service F designation.

Traffic conditions along Kuhio Highway near the Wailua Golf Course Site (Site 3) are anticipated to be within the level of service D and E designations, with or without development of the new school. See Table 14. Morning traffic conditions would be characterized by low operating speeds and volumes at or near capacity. Afternoon traffic flow is anticipated to be more stable.

Development of the proposed school at the Former Hanamaulu Elementary School Site (Site 4) is not anticipated to affect the projected level of service C designation. See Table 15. Traffic along Kuhio Highway in this vicinity, with or without the new school would be characterized by stable flow with restriction on the driver's selection of speed and reduced ability to pass.

Traffic conditions along Kuhio Highway at the Lihue Plantation Yard Site (Site 5) are anticipated to be

TABLE 14

TRAFFIC CHARACTERISTICS ALONG KUHIO HIGHWAY NEAR  
THE WAILUA GOLF COURSE SITE FOR EXISTING  
AND ANTICIPATED 1990 CONDITIONS

	<u>7:00-8:00 AM</u>	<u>2:30-3:30 PM</u>
1985 Volume (vph)	1,391	1,208
Existing (1986) Volume (vph)	1,433	1,244
Existing (1986) LS	E	D
<hr/>		
Projected (1990) Volume (vph) without school	1,613	1,400
Projected (1990) LS without school	E	D
<hr/>		
Projected (1990) Volume (vph) with school	1,636	1,423
Projected (1990) LS with school	E	D

LS - Level of Service  
vph - Vehicles per hour

**TABLE 15**

**TRAFFIC CHARACTERISTICS ALONG KUHIO HIGHWAY NEAR  
THE FORMER HANAMAULU ELEMENTARY SCHOOL  
SITE FOR EXISTING AND ANTICIPATED 1990 CONDITIONS**

	<u>7:00-8:00 AM</u>	<u>2:30-3:30 PM</u>
1985 Volume (vph)	1,412	1,284
Existing (1986) Volume (vph)	1,454	1,323
Existing (1986) LS	E	E
<hr/>		
Projected (1990) Volume (vph) without school <sup>a</sup>	566	515
Projected (1990) LS without school <sup>a</sup>	C	C
<hr/>		
Projected (1990) Volume (vph) with school <sup>a</sup>	606	555
Projected (1990) LS with school <sup>a</sup>	C	C

LS - Level of Service  
vph - Vehicles per hour

<sup>a</sup>Assuming the completion of the Hanamaulu-Ahukini Cutoff Road.

within the level of service A and B designations, with or without the development of the proposed school. See Table 16.

**TABLE 16**  
**TRAFFIC CHARACTERISTICS ALONG KUHIO HIGHWAY NEAR**  
**THE LIHUE PLANTATION YARD SITE**  
**FOR EXISTING AND ANTICIPATED 1990 CONDITIONS**

	<u>7:00-8:00 AM</u>		<u>2:30-3:30 PM</u>	
	<u>Wailua-bound</u>	<u>Lihue-bound</u>	<u>Wailua-bound</u>	<u>Lihue-bound</u>
1985 Volume (vph)	419	970	949	679
Existing (1986) Volume (vph)	432	999	979	699
Existing (1986) LS	B	F	F	D
<hr/>				
Projected (1990) Volume (vph) without school <sup>a</sup>	216	499	489	349
Projected (1990) LS without school <sup>a</sup>	A	B	B	A
<hr/>				
Projected (1990) Volume (vph) with school <sup>a</sup>	266	552	542	399
Projected (1990) LS with school <sup>a</sup>	A	B	B	A

LS - Level of Service  
vph - Vehicles per hour

<sup>a</sup>Assuming the completion of the Hanamaulu-Ahukini Cutoff Road.

Morning Wailua-bound traffic and afternoon Lihue-bound traffic would be characterized by low densities with no restrictions due to traffic conditions. Morning Lihue-bound and afternoon Wailua-bound traffic would be described as stable, with only a slight restriction of driver freedom.

Traffic conditions near the sites in Hanamaulu are projected to improve in the future due to the

construction of the Hanamaulu-Ahukini Cutoff Road. Traffic volumes along Kuhio Highway are anticipated to be significantly reduced as an alternate route would be provided within Hanamaulu. A preliminary engineering report, the Hanamaulu-Ahukini Cutoff Road (State Department of Transportation, 1979), shows a reduction in traffic along Kuhio Highway from Kapaia Road to Hanamaulu Road of about 56 percent relative to the projected 1990 volumes. A reduction in traffic of about 65 percent is anticipated along Kuhio Highway from Hanamaulu Road to the junction of Kuhio Highway and the Hanamaulu-Ahukini Cutoff Road.

Projected traffic conditions along Kuhio Highway near the Kuamoo Road accessway to the Wailua Homestead Mauka and Makai Sites (Sites 1 and 2), and in the vicinity of the Wailua Golf Course Site (Site 3) may be considered less desirable than those projected for the sites within Hanamaulu. However, the State Department of Transportation (DOT) may consider widening Kuhio Highway from a 2-lane to 4-lane facility in this vicinity.

Traffic conditions along Kuhio Highway were not analyzed for the year 2010, the anticipated date for the fully operational new Hanamaulu-Wailua Elementary School, as projections made at the present time may not present an accurate approximation of conditions over a period of nearly 25 years. However, if urban growth continues at the present rate, traffic conditions in the year 2010 may be expected to approach or exceed capacity conditions.

b. Impacts to Local Roadways

Additional traffic will be generated by the New Hanamaulu-Wailua Elementary School. As shown in Table 17, traffic generated by the opening year enrollment will include 2 to 3 buses and 26 cars. The design enrollment will generate 4 to 8 buses and 55 cars. Busing requirements are based on the assumption that bus transportation is provided for students who reside more than one mile in walking distance from the proposed school (see Appendix A). Automobile totals are based on school staff and teacher vehicles only. Although additional automobiles generated by parents dropping off students are anticipated, this number was not included due to the random and unpredictable occurrences of such drop-offs.

Since up-to-date traffic counts in the vicinity of all five candidate sites are not available, conditions

TABLE 17  
SCHOOL TRAFFIC GENERATION

<u>SITE</u>	<u>OPENING ENROLLMENT</u> (300 students)		<u>DESIGN ENROLLMENT</u> (900 students)	
	<u>BUSES</u>	<u>CARS<sup>a</sup></u>	<u>BUSES</u>	<u>CARS<sup>a</sup></u>
Wailua Homestead Mauka (Site 1)	2	26	5	55
Wailua Homestead Makai (Site 2)	2	26	5	55
Wailua Golf Course (Site 3)	3	26	8	55
Former Hanamaulu Elementary School (Site 4)	2	26	4	55
Lihue Planatation Yard (Site 5)	2	26	4	55

<sup>a</sup>Includes facility/staff vehicles only.

along local roadways were qualitatively evaluated for traffic congestion, traffic hazards, and alternate access routes.

Access to the Wailua Homestead Mauka Site (Site 1) would be along Opaekaa Road, a sparsely-traveled local roadway within a low-density residential area. A school at this site would create less local traffic congestion than one adjoining a heavily-travelled roadway. However, the narrow right-of-way width, surrounding residential use, and absence of sidewalks and paved shoulders along Opaekaa Road may be considered disadvantages. Alternate routes to the site are not available.

An elementary school at the Wailua Homestead Makai Site (Site 2) would increase traffic along Kuamoo Road, the proposed access to the site. Kuamoo Road is the primary road serving the Wailua Homestead area from Kuhio Highway. While Kuamoo Road is more heavily travelled than Opaekaa Road (Site 1 proposed access), local traffic congestion created by a new school is anticipated to be less than if the school were adjoining a major roadway, such as Kuhio Highway. As in the case of Site 1, however, the surrounding residential use, narrow right-of-way width, and absence of sidewalks and paved shoulders along Kuamoo Road may be considered disadvantages. Signalization of a nearby intersection should be considered to minimize potential traffic hazards. No alternate routes to the site are available.

An elementary school at the Wailua Golf Course Site (Site 3) would adjoin Leho Drive, a looped roadway which intersects Kuhio Highway at two points. This configuration provides for two access routes to the site along Leho Drive, minimizing local traffic congestion. Additionally, the absence of single-family residences in the vicinity minimizes potential traffic hazards. However, the absence of sidewalks and paved shoulders along Leho Drive may be considered disadvantages. Development of this site may also generate more traffic than anticipated at the other four candidate sites since it lies in a sparsely populated area. Its location between the two major population centers within the school service area will result in greater volumes of commuters from outside areas going to the school. Signalization should be considered at the southernmost intersection of Leho Drive and Kuhio Highway to minimize traffic hazards.

Development of the Former Hanamaulu Elementary School Site (Site 4) for the proposed school would increase traffic along Kuhio Highway and/or Hanamaulu Road. If both Kuhio Highway and Hanamaulu Road serve as accessways to the proposed school, local traffic congestion would be minimized. If a single accessway is utilized, less congestion is anticipated if Hanamaulu Road rather than Kuhio Highway were to serve as the only access, since Hanamaulu Road is not as heavily-traveled as Kuhio Highway.

It is noted that residential use nearby the Former Hanamaulu Elementary School Site, and the absence of sidewalks and paved shoulders along Hanamaulu Road may be considered disadvantages. However, since the site is within walking distance of about half of the students, there would be less impact on Kuhio Highway. Additionally, Kuhio Highway in Hanamaulu has sidewalks. To minimize traffic hazards, signalization of the Hanamaulu Road/Kuhio Highway intersection should be considered.

Access to a proposed school at the Lihue Plantation Yard Site (Site 5) would be along Kuhio Highway, a heavily-travelled major roadway. If this site is developed, local traffic congestion would probably be greater than at the other four potential school sites. No alternate routes to the site are available.

The residential use nearby the Lihue Plantation Yard Site along Kuhio Highway and Laukona Street may be considered a disadvantage while the existing traffic signal light at the intersection of Kuhio Highway and Laukona Street is an advantage. Since the site is also within walking distance of about half of the students, there would be less of an impact on Kuhio Highway. It is also noted that Kuhio Highway in Hanamaulu has sidewalks.

#### 4. Public Safety and Health

The candidate sites are generally free of flood, tsunami, erosion and landslide hazards.

The Wailua Golf Course Site (Site 3) and the two Hanamaulu sites (Sites 4 and 5) are located near to or adjoin Kuhio Highway, increasing the concern associated with exposure to exhaust fumes and traffic. Appropriate mitigative measures such as fencing the school boundaries and proper building design to allow adequate air circulation shall be considered during the design phase of project development.

## 5. Surrounding Land Uses

Land use relationships of the proposed school with its surrounding environs vary among the sites. The Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) are generally considered compatible with surrounding land uses.

The Wailua Golf Course Site (Site 3) and Lihue Plantation Yard Site (Site 5) are proximate to cane lands, and may be subject to intermittent dust, odor and noise nuisances associated with planting and harvesting operations. Adverse impacts of plantation operations on the school can be minimized by coordinating the scheduling of such operations with the Lihue Plantation. The Lihue Plantation Yard Site (Site 5), however, is located near plantation roads traversed by noisy cane haul trucks which would pose a potential nuisance. This constraint would be addressed through site planning and architectural design processes.

The Former Hanamaulu Elementary School Site (Site 4) is considered compatible with surrounding uses. Although cane lands currently surround a portion of the site, underlying zoning and proposed development plans are for single-family residences.

## 6. Displacement

A building on the Former Hanamaulu Elementary School Site (Site 4), is occupied by the multi-purpose Hale Hauoli Day Activity Center, presently used for child headstart programs, adult care, martial arts, instruction, church functions, and evening adult education classes. Users of this facility would be displaced by an elementary school located at this site.

Executive Order No. 3113, reserves the Former Hanamaulu Elementary School parcel for DOE use. Should this site be selected for new school development, the State shall provide adequate advance notice of its decision to the Center's users.

Sites 1, 2, 3 and 5 are undeveloped. Therefore, no homes or other facilities will be displaced to develop the school on these sites.

## 7. Off-Site Infrastructure

Preliminary evaluation of off-site infrastructure systems, such as drainage, water, and sewerage systems were conducted for each of the candidate sites. The Lihue Plantation Yard Site (Site 5) is the only potential site that would require off-site drainage improvements. Runoff

from all of the other sites could be accommodated by existing conveyance methods, either discharging directly into cane fields, streams, or existing drainage facilities. Probable drainage facility improvements for the Lihue Plantation Yard Site include a roadway swale along Kuhio Highway and two culvert crossings.

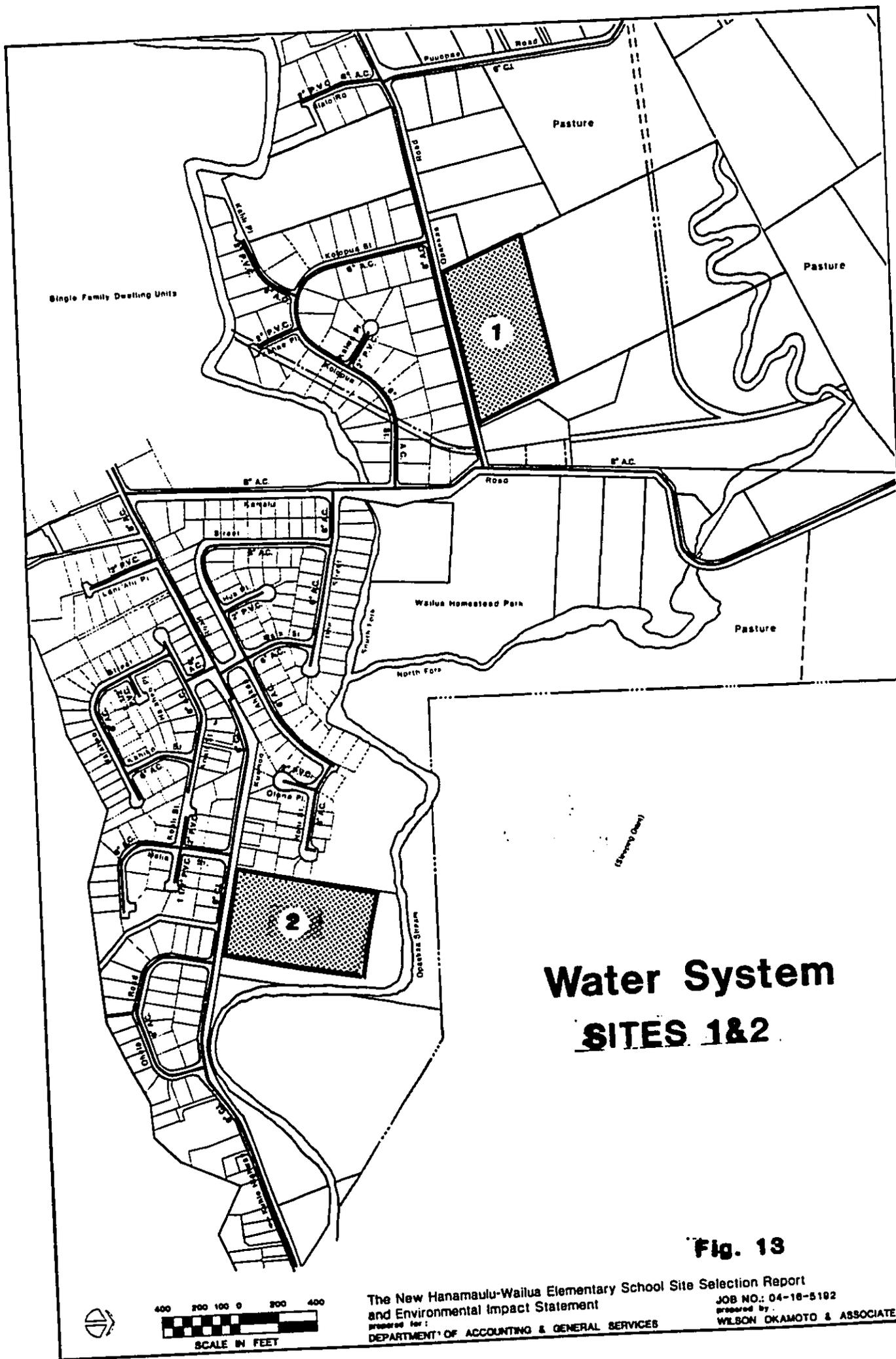
Existing County water facilities are available to service the proposed school. See Figures 13 through 15. The Lihue Plantation Yard Site (Site 5) will not require off-site water system improvements. The four other candidate sites will require off-site water improvements. Probable improvements for the Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) would include a new source well, appurtenant pumps, housing, controls and transmission lines. Moreover, additional storage capacity will probably be required if a new school is developed in the Wailua Homestead area. For the Wailua Golf Course Site (Site 3), a new source may also be required. Transmission facilities for the Former Hanamaulu Elementary School Site (Site 4) will need to be upgraded.

Off-site sewerage improvement requirements vary for each site based on the availability of municipal sewer lines. See Figures 14 and 15. There is no County sewerage system in the Wailua Homestead area; all homes are served by cesspools. It is, therefore, assumed that a school located at the Wailua Homestead sites will require wastewater treatment works, in accordance with Act 282, SLH 1985, as amended by Act 302, SLH 1986. At the remaining sites, an initial student enrollment of 300 students can be accommodated by the County sewerage system.

#### 8. Social Considerations

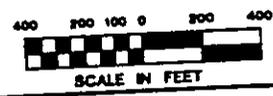
The geographic configuration of the school service area for the New Hanamaulu-Wailua Elementary School results in two major communities of opposite ends being served by a single school. Although this is an awkward situation that requires busing at least 50 percent of the student enrollment, it is not unique since many schools statewide are currently operating under similar conditions. Historically, schools have always accommodated two or more distinct communities because of geographic locations, limited enrollment and limited fiscal resources of the government.

The continued growth of each community will be monitored by the Department of Education and may indicate the need for a school in each at some future date.



# Water System SITES 1&2

**Fig. 13**



The New Hanamalu-Waiula Elementary School Site Selection Report  
and Environmental Impact Statement  
prepared for:  
DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO.: 04-18-5192  
prepared by:  
WILSON OKAMOTO & ASSOCIATES, INC

# Water & Sewer Systems

-  EXISTING WATER SYSTEM
-  EXISTING SEWER SYSTEM

## SITE 3

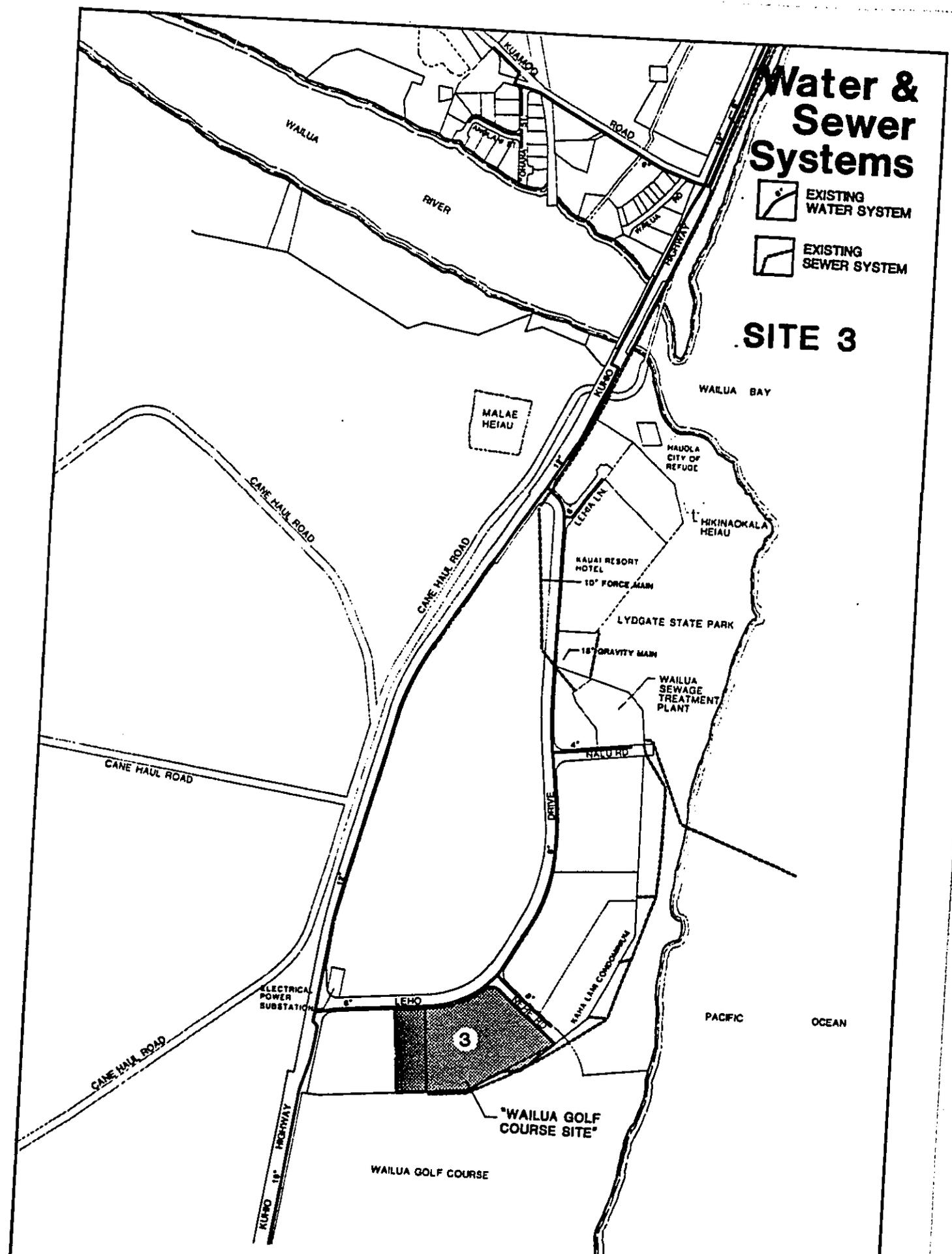
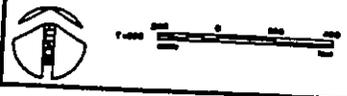


Fig. 14



The New Hanamaulu-Wailua Elementary School Site Selection Report  
 and Environmental Impact Statement  
 prepared for:  
 DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO: 04-16-5192  
 prepared by:  
 WILSON OKAMOTO & ASSOCIATES, INC.

# Water & Sewer Systems

-  EXISTING WATER SYSTEM
-  EXISTING SEWER SYSTEM

## SITES 4 & 5

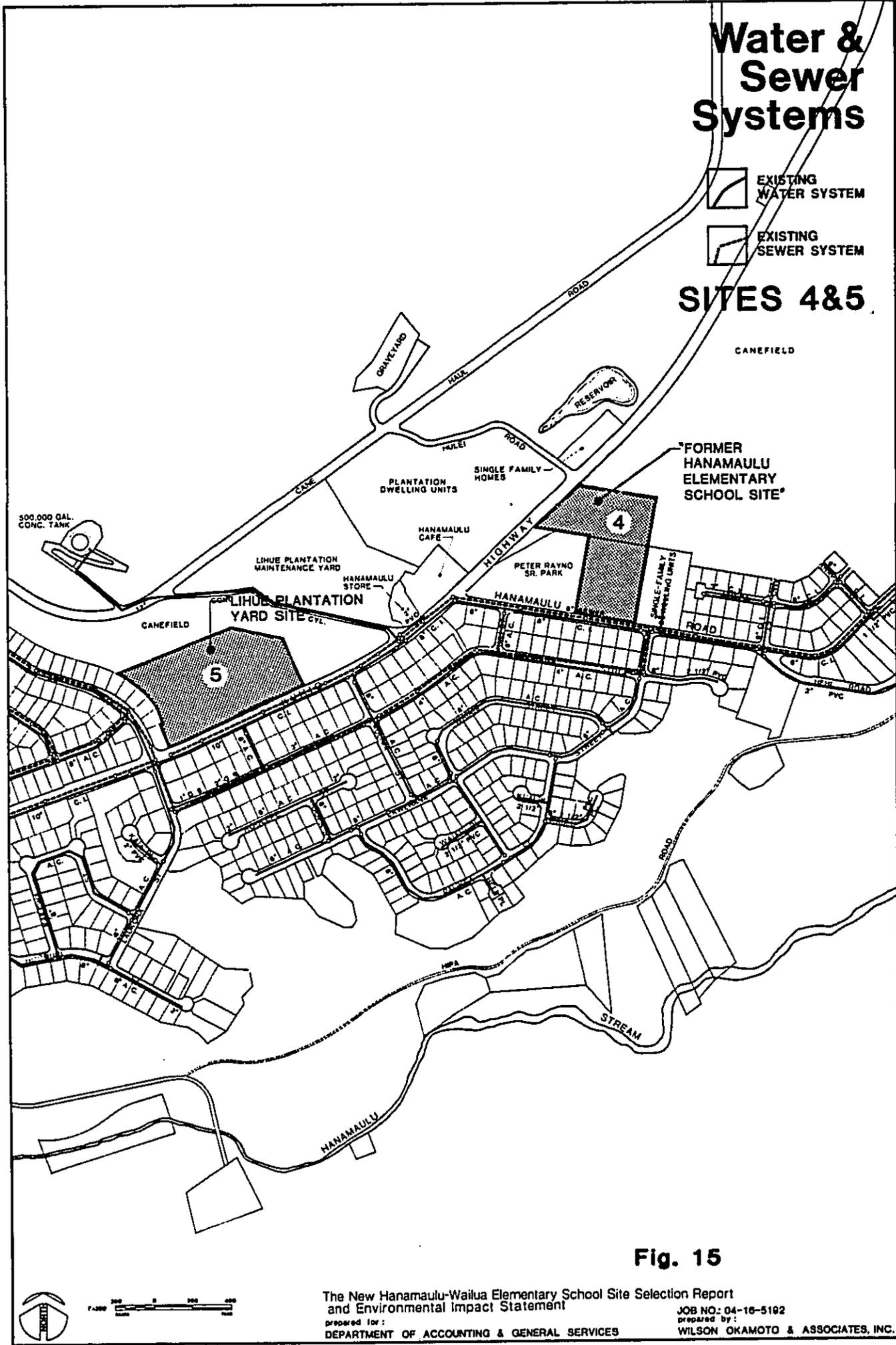


Fig. 15



The New Hanamaulu-Wailua Elementary School Site Selection Report  
 and Environmental Impact Statement  
 prepared for:  
 DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO: 04-16-5192  
 prepared by:  
 WILSON OKAMOTO & ASSOCIATES, INC.

VIII. ALTERNATIVES TO THE PROPOSED ACTION

**VIII. ALTERNATIVES TO THE PROPOSED ACTION**

**A. No Action**

Schools within the project service area are presently operating beyond capacity, and continued population growth is projected for the region. A "no action" alternative would preclude the DOE's goal of ensuring the provision of adequate and accessible educational services and facilities.

**B. Adjusting Existing School Service Area**

Adjustment of the existing school service area would not provide an acceptable solution because excess capacity at other East Kauai schools is currently unavailable.

**C. Busing to Schools Outside the School Service Area**

Busing to other schools is similarly considered infeasible due to the inadequacy of current facilities to accommodate additional bused students, and lack of space at these campuses to accommodate development of additional new facilities.

**D. Expanding the Capacity of Existing Schools**

Expanding the capacities of existing elementary schools is not considered viable since the land areas at both Wilcox and Kapaa Elementary Schools are insufficient to accommodate required new facilities. The cost of expanding the existing schools to accommodate the projected growth would be similar to the cost of constructing a new elementary school.

IX. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES  
OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND  
ENHANCEMENT OF LONG-TERM PRODUCTIVITY

IX. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

A. Short-Term Uses

The implementation of the proposed project will include local short-term uses of man's environment during the construction phase of the project. Construction activities associated with the new Hanamaulu-Wailua Elementary School will create minor disruptions and nuisances in the vicinity of the project site. Temporary economic benefits will result from construction expenditure and employment opportunities.

B. Long-Term Productivity

The new Hanamaulu-Wailua Elementary School will assure the continued maintenance and enhancement of public education and social welfare by providing an essential educational service and facility that will meet the enrollment requirements of the region. Long-term economic benefits would be associated with employment required for the operation and maintenance of the school.

X. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

X. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Implementation of the proposed action would involve the commitment of fuel, labor, funding and materials for the construction of the new school. Labor, materials, and utilities would also be required for operation and maintenance of the proposed project.

Development of the proposed project will involve the commitment of land for school use which will preclude other land use options for the selected site.

XI. LIST OF NECESSARY APPROVALS

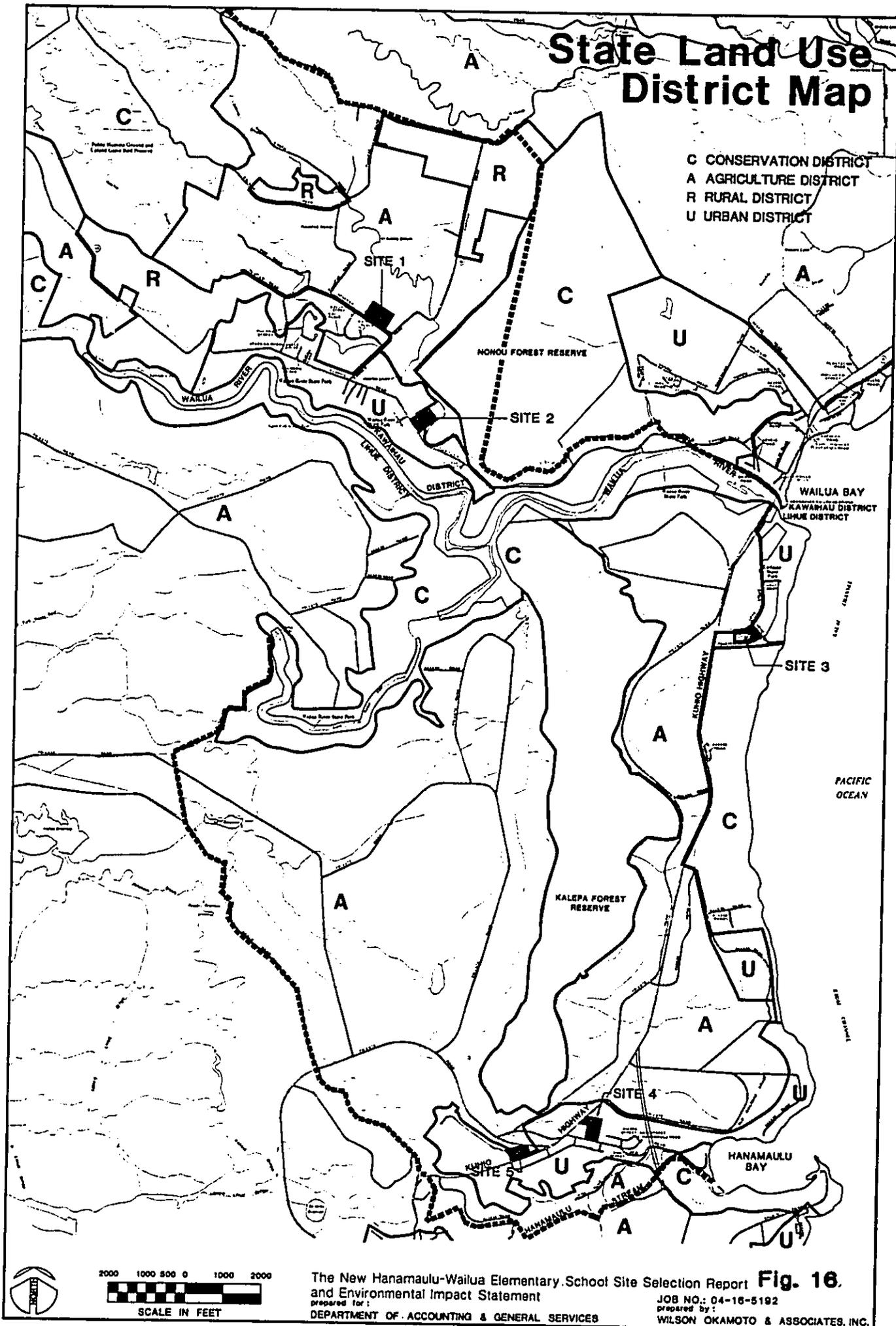
## XI. LIST OF NECESSARY APPROVALS

Development of school facilities will be subject to varying governmental permits and approvals, depending upon the underlying State Land Use designations and County Zoning designations of each candidate site. See Figures 16 through 20. Of the five candidate sites, the Wailua Golf Course Site (Site 3) and the Former Hanamaulu Elementary School Site (Site 4) are entirely within the State Land Use Urban District. School development is consistent with this designation. The Wailua Homestead Mauka Site (Site 1), the majority of the Lihue Plantation Yard Site (Site 5) and a portion of the Wailua Homestead Makai Site (Site 2) are in the State Land Use Agricultural District. These three sites will, therefore, require consideration by the State Land Use Commission for a Boundary Amendment to include them in the Urban District. Alternately, a Special Use Permit may be sought from the County Planning Commission to accommodate a school in the Agricultural District.

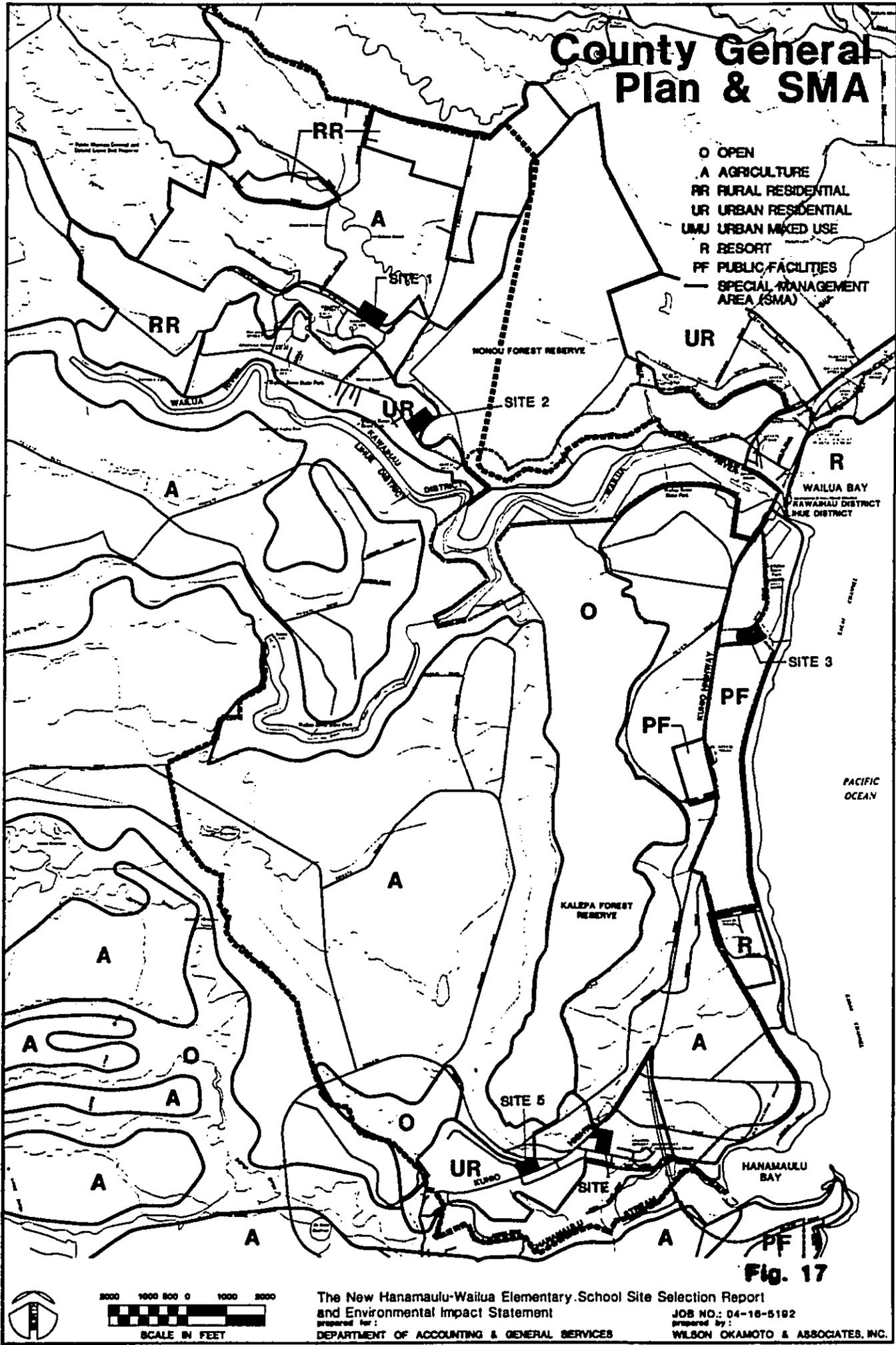
While there are no permit requirements with respect to the County General Plan, these designations provide guidelines for development within the County. General Plan designations within which school use is consistent are Urban Residential, Public Facility and Rural Residential. Accordingly, sites consistent with the General Plan are the Wailua Homestead Makai Site (Site 2), Wailua Golf Course Site (Site 3) and Former Hanamaulu Elementary School Site (Site 4). School use is inconsistent with the Agriculture designation. The majority of the Lihue Plantation Yard Site (Site 5) and the Wailua Homestead Mauka Site (Site 1) are within the Agriculture designation.

Approvals related to County zoning would be required at all five sites, as school development is a permitted use in Commercial designations only. A Use Permit would be required for development of a school in a Special Treatment (Public) District (ST-P). Development of a school at all five sites would require a zoning change.

All sites are situated outside the County's Special Management Area.

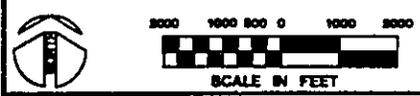


# County General Plan & SMA



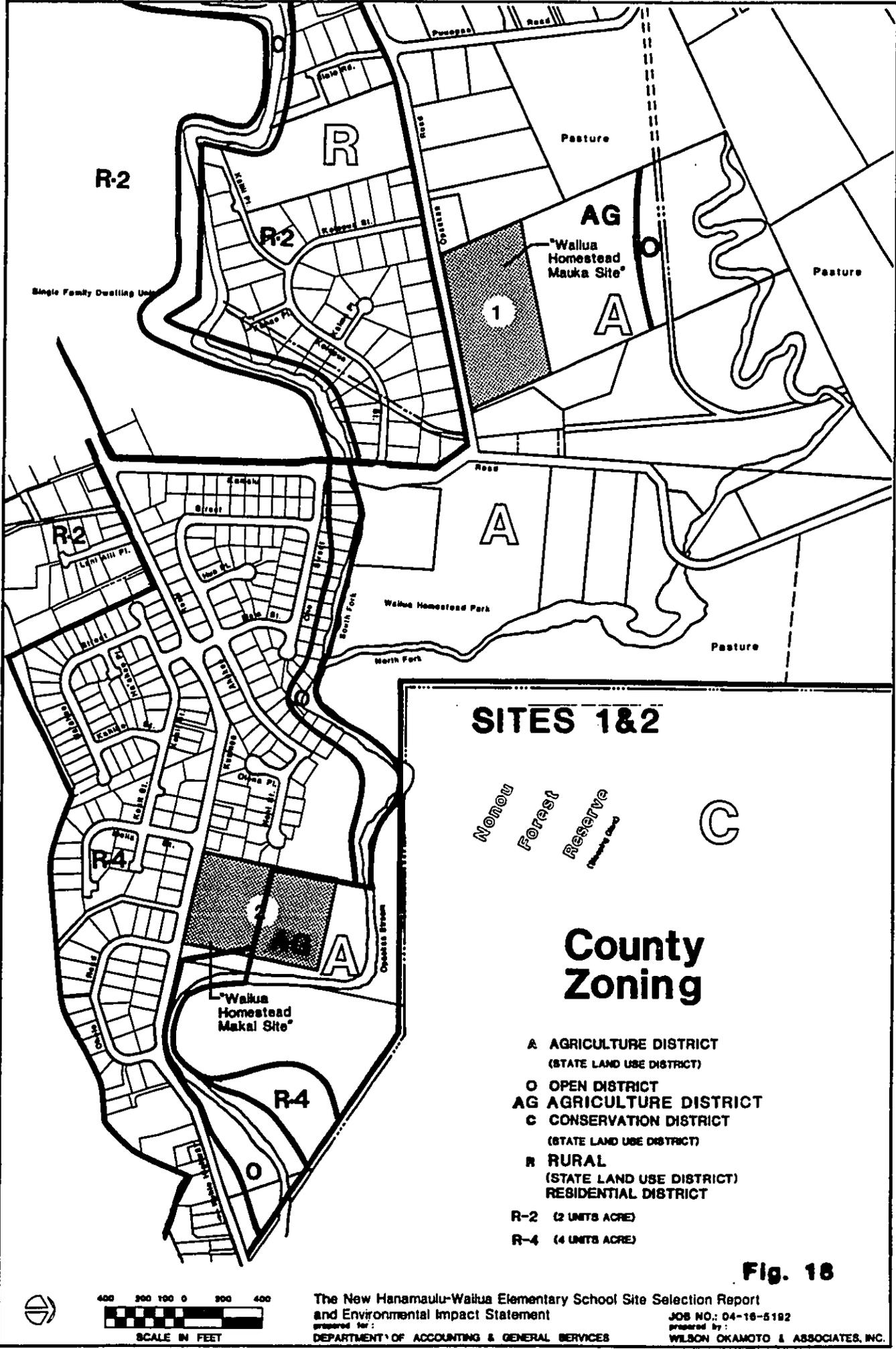
- O OPEN
- A AGRICULTURE
- RR RURAL RESIDENTIAL
- UR URBAN RESIDENTIAL
- UMU URBAN MIXED USE
- R RESORT
- PF PUBLIC FACILITIES
- SPECIAL MANAGEMENT AREA (SMA)

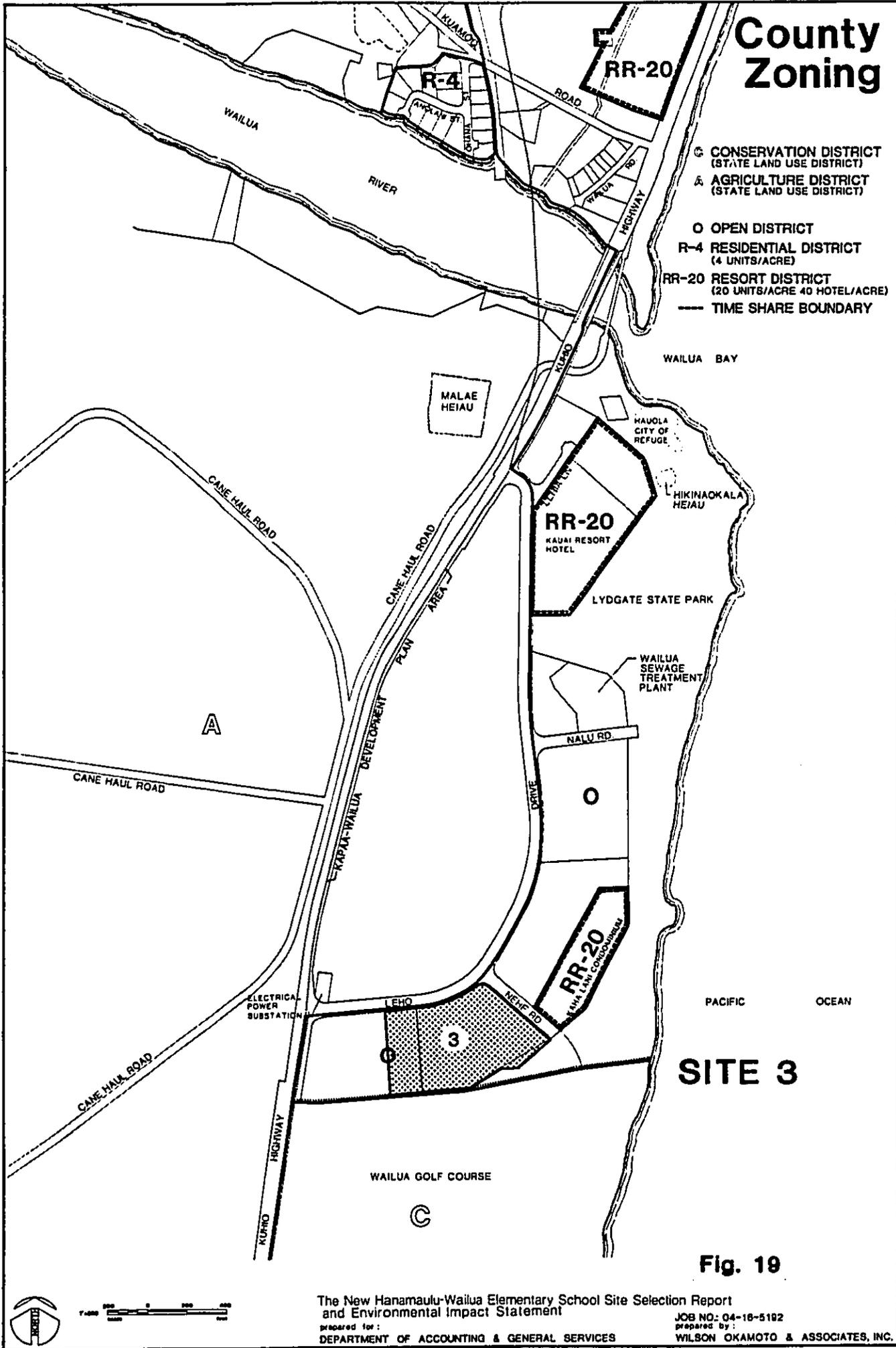
**Fig. 17**



The New Hanamaulu-Wailua Elementary School Site Selection Report  
 and Environmental Impact Statement  
 prepared for:  
 DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

prepared by:  
 WILSON OKAMOTO & ASSOCIATES, INC.  
 JOB NO.: 04-18-5102

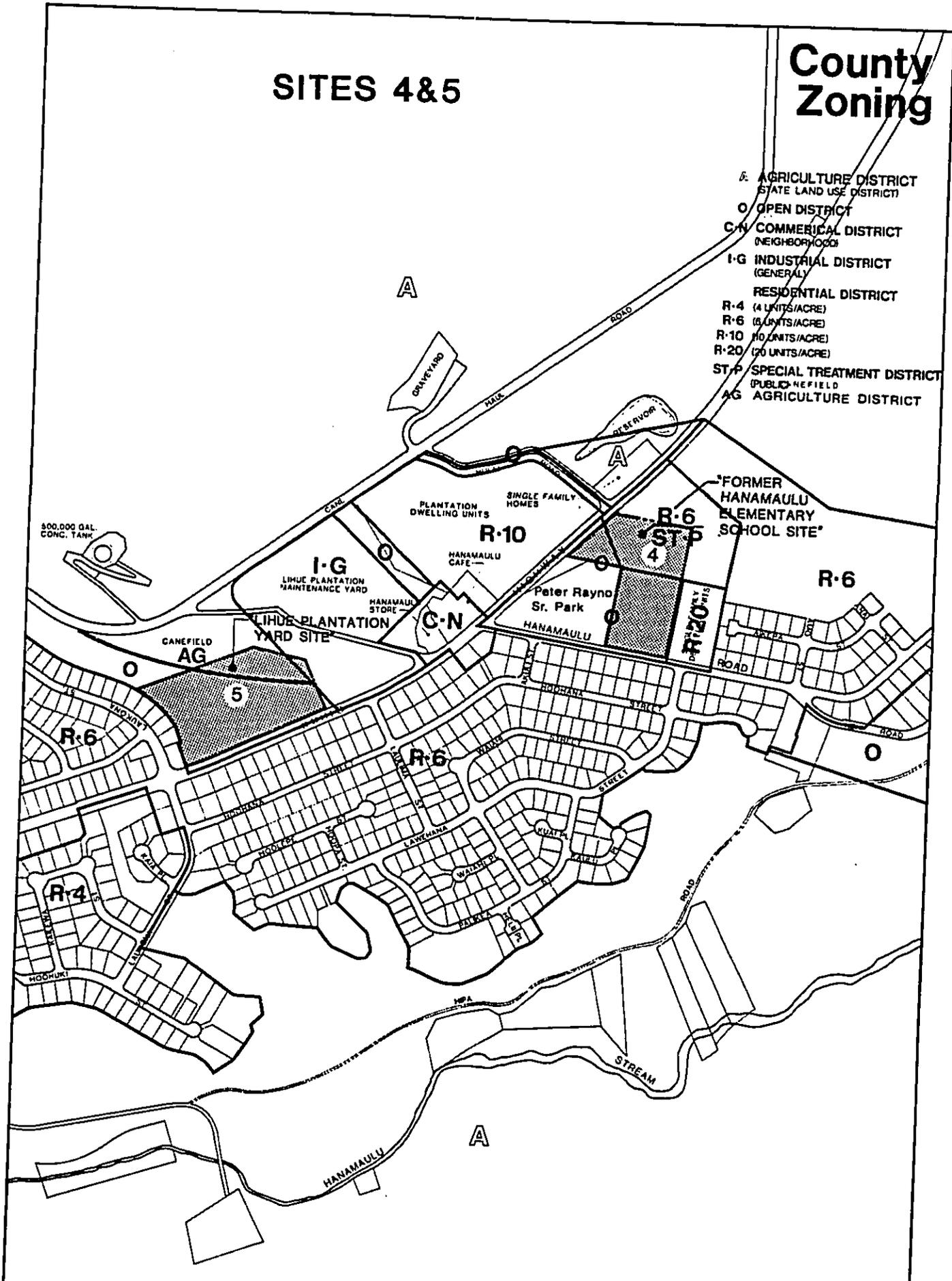




# SITES 4&5

# County Zoning

- A AGRICULTURE DISTRICT (STATE LAND USE DISTRICT)
- O OPEN DISTRICT
- C-N COMMERCIAL DISTRICT (NEIGHBORHOOD)
- I-G INDUSTRIAL DISTRICT (GENERALLY)
- R-4 RESIDENTIAL DISTRICT (4 UNITS/ACRE)
- R-6 RESIDENTIAL DISTRICT (6 UNITS/ACRE)
- R-10 RESIDENTIAL DISTRICT (10 UNITS/ACRE)
- R-20 RESIDENTIAL DISTRICT (20 UNITS/ACRE)
- ST-P SPECIAL TREATMENT DISTRICT (PUBLIC WEFIELD)
- AG AGRICULTURE DISTRICT



**Fig. 20**

The New Hanamaulu-Wailua Elementary School Site Selection Report  
 and Environmental Impact Statement  
 prepared for:  
 DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

JOB NO: 04-16-5192  
 prepared by:  
 WILSON OKAMOTO & ASSOCIATES, INC.

XII. AGENCIES, ORGANIZATIONS, AND INDIVIDUALS  
CONSULTED IN THE PREPARATION OF THE EIS

XII. AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED IN THE PREPARATION OF THE EIS

FEDERAL AGENCIES

Department of the Army  
U. S. Army Engineer District,  
Honolulu  
Building 230  
Fort Shafter, Hawaii 96858

Soil Conservation Service  
U. S. Department of Agriculture  
P. O. Box 50004  
Honolulu, Hawaii 96850

Fish and Wildlife Service  
U. S. Department of the Interior  
P. O. Box 50167  
Honolulu, Hawaii 96850

Commander, Naval Facility  
Command Pacific Division  
U.S. Department of the Navy  
Pearl Harbor, Hawaii 96860

District Planning Office  
U.S. Department of Transportation  
United States Coast Guard  
Commander, Fourteenth Coast Guard  
District  
300 Ala Moana Boulevard  
Honolulu, Hawaii 96850

U.S. Army Support Command Hawaii  
Attention: Environmental Management  
Office  
Fort Shafter, Hawaii 96858-5000

STATE AGENCIES

Department of Agriculture  
State of Hawaii  
1428 South King Street  
Honolulu, Hawaii 96814

Department of Defense  
Office of the Adjutant General  
State of Hawaii  
3949 Diamond Head Road  
Honolulu, Hawaii 96816-4495

Department of Education  
State of Hawaii  
1390 Miller Street  
Honolulu, Hawaii 96813

Mrs. Martha Morita, Principal  
Elsie H. Wilcox Elementary School  
Department of Education  
State of Hawaii  
4319 Hardy Street  
Lihue, Kauai, Hawaii 96766

Department of Health  
State of Hawaii  
1250 Punchbowl Street  
Honolulu, Hawaii 96813

Department of Land and  
Natural Resources  
State of Hawaii  
1151 Punchbowl Street  
Honolulu, Hawaii 96813

Department of Planning and  
Economic Development  
State of Hawaii  
250 South King Street  
Honolulu, Hawaii 96813

Department of Social Services  
and Housing  
State of Hawaii  
1390 Miller Street, #209  
Honolulu, Hawaii 96813

Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Office of Environmental Quality  
Control  
State of Hawaii  
465 South King Street, #115  
Honolulu, Hawaii 96813

STATE AGENCIES - Continued

Environmental Center  
University of Hawaii  
Crawford 317  
2250 Campus Road  
Honolulu, Hawaii 96822

Water Resources Research Center  
University of Hawaii  
Holmes Hall 283  
2540 Dole Street  
Honolulu, Hawaii 96822

COUNTY AGENCIES

Kauai County  
Planning Department  
4280 Rice Street  
Lihue, Hawaii 96766

County of Kauai  
Department of Public Works  
3021 Umi Street  
Lihue, Kauai, Hawaii 96766

County of Kauai  
Department of Water Supply  
4398 Pua Loke Street  
Lihue, Kauai, Hawaii 96766

Kauai Community College  
Puhi  
Lihue, Kauai, Hawaii 96766

UTILITY COMPANIES

Kauai Electric Division  
Citizens Utilities Company  
P. O. Box 278  
Eleele, Kauai, Hawaii 96705

Hawaiian Telephone Company  
P. O. Box 2200  
Honolulu, Hawaii 96841

ORGANIZATIONS

Kapaa Elementary School  
PTA  
4886 Kawaihau Road  
Kapaa, Kauai, Hawaii 96746

The Sierra Club, Hawaii Chapter  
P. O. Box 111070  
Honolulu, Hawaii 96828

Wilcox Elementary School PTA  
4319 Hardy Street  
Lihue, Kauai, Hawaii 96766

Life of the Land  
250 South Hotel Street, Suite 211  
Honolulu, Hawaii 96813

American Lung Association  
245 North Kukui Street  
Honolulu, Hawaii 96817

GOVERNMENT OFFICIALS

Honorable Lehua Fernandes Salling  
Senator  
State Capitol, Room 218  
Honolulu, Hawaii

Honorable Alfred C. Lardizabal  
Representative  
State Capitol, Room 315  
Honolulu, Hawaii

Honorable Tony Kunimura  
Mayor  
Kauai County  
4396 Rice Street  
Lihue, Kauai, Hawaii 96766

Honorable Ronald Kouchi  
Chairman  
Kauai County Council  
4396 Rice Street  
Lihue, Kauai, Hawaii 96766

INDIVIDUALS

Ms. Mary Ishida  
6130 Kolopua Street  
Kapaa, Kauai, Hawaii 96746

Mr. Michael S. Kano  
P. O. Box 774  
Lihue, Kauai, Hawaii 96766

INDIVIDUALS - Continued

Ms. Cherylyn Inouye  
69 Aleo Street  
Kapaa, Kauai, Hawaii 96746

Ms. Lynn Muramoto  
5678 Ani Street  
Kapaa, Kauai, Hawaii 96746

Ms. Antoinette Simon  
P. O. Box 158  
Kapaa, Kauai, Hawaii 96746

Ms. Sharon Masuoka  
4635 Iwaena Loop  
Kapaa, Kauai, Hawaii 96746

Ms. Joanne Fujio  
153 Kaholalele Road  
Kapaa, Kauai, Hawaii 96746

Ms. Maryanne Kusaka  
4886 Kawaihau Road  
Kapaa, Kauai, Hawaii 96746

Ms. Linda Gonsalves  
4886 Kawaihau Road  
Kapaa, Kauai, Hawaii 96746

XIII. EIS CONSULTATION PHASE, COMMENTS AND RESPONSES

### XIII. EIS CONSULTATION PHASE, COMMENTS AND RESPONSES

The following agencies, organizations, and individuals provided comments in reviewing the preliminary Site Selection Report and Draft EIS. A total of 16 comment letters were received.

A double asterisk (\*\*) indicates those which submitted written comments requiring substantive responses. The comment and response letters are reproduced in this section.

A single asterisk (\*) indicates those letters not requiring substantive responses. The comment letters are reproduced in this section.

#### A. FEDERAL AGENCIES

- \*\* 1. Department of the Army, U.S. Army Engineer District, Honolulu
- \* 2. U.S. Department of Agriculture, Soil Conservation Service
- \*\* 3. U.S. Department of Interior, Fish and Wildlife Service

#### B. STATE AGENCIES

- \*\* 1. Department of Agriculture
- \*\* 2. Department of Education
- \*\* 3. Department of Health
- \*\* 4. Department of Land and Natural Resources
- \* 5. Department of Planning and Economic Development
- \*\* 6. Department of Transportation

#### C. COUNTY AGENCIES

- \*\* 1. Department of Public Works
- \*\* 2. Department of Water

#### D. UTILITIES

- \*\* 1. Citizens Utilities Company
- \*\* 2. Hawaiian Telephone

#### E. INDIVIDUALS

- \*\* 1. Mrs. Cherylyn M. Inouye
- \*\* 2. Mrs. Mary Ishida
- \*\* 3. Mrs. Sharon Masuoka



DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, HONOLULU  
BUILDING 230  
FT. SHAFTER, HAWAII 96849 -5440

REPLY TO  
ATTENTION OF:

August 14, 1986



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 111, HONOLULU, HAWAII 96810

HONOLULU, HAWAII

DATE IN TYPE  
BY PUBLIC WORKS

LETTER NO. (P) 1987.6

OCT 20 1986

Mr. Hideo Murakami, Comptroller  
Department of Accounting and  
General Services  
P. O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Thank you for the opportunity to review and  
comment on the EIS Consultation Phase for the New  
Hanamalu-Wailua Elementary School, Kauai. The  
following comments are offered:

- a. School sites 1 and 2 are near Opaekaa Stream.  
If wetlands exist on these sites, a Department of the  
Army permit will be required for the placement of fill  
for school facilities.
- b. The flood hazards have been addressed on page  
III-8 of the report.

Sincerely,

  
Albert Cheung  
Chief, Engineering Division

Mr. Kisuik Cheung  
Chief, Engineering Division  
U.S. Army Engineer District, Honolulu  
Department of the Army  
Fort Shafter, Hawaii 96858-5440

Dear Mr. Cheung:

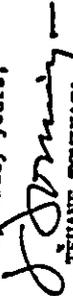
Subject: New Hanamalu-Wailua Elementary School  
EIS Consultation Phase

Thank you for your August 14, 1986 comments on the  
subject project.

The Wailua Homestead Mauka and Makai Sites (Sites 1 and  
2, respectively) do not contain any wetlands. This deter-  
mination is based on the National Wetlands Inventory Map and  
has been verified by the Department of Land and Natural  
Resources.

We appreciate your input for this project.

Very truly yours,

  
TEUANE TOMINAGA  
State Public Works Engineer

SH:mkk

GEORGE B. ANTOSH  
EDMUND M. LEITH  
MURRAY E. BROWN  
WALTER B. BROWN

DEPARTMENT OF PLANNING  
AND ECONOMIC DEVELOPMENT

STATE OF HAWAII  
DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT  
150 SOUTH KING STREET, SUITE 1200, HONOLULU, HAWAII 96813

Roger A. Uluhila

DEVELOPMENT  
PLANNING DIVISION  
RESEARCH AND ECONOMIC PLANNING DIVISION  
ADMINISTRATIVE SERVICES DIVISION  
PROVISIONS DIVISION

Ref. No. P-4930

August 26, 1986

MEMORANDUM

TO: The Honorable Hideo Murakami, State Comptroller  
Department of Accounting and General Services

FROM: Kent M. Keith *Murray E. Brown*

SUBJECT: Hanamaulu-Wailua Elementary School DEIS, Kauai

We have reviewed the subject draft environmental impact statement (DEIS) and find that it has adequately evaluated potential impacts which may result from the construction of the school building. Thank you for the opportunity to comment on this document.

cc: Office of Environmental Quality Control



SECOND CLASS PERMIT  
NO. 100



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 113 HONOLULU, HAWAII 96810

MADE IN HAWAII  
BY THE STATE OF HAWAII

LETTER NO. (P) 1988.6

OCT 20 1985

Mr. Ernest Kosaka, Project Leader  
Office of Environmental Services  
U.S. Department of the Interior  
Fish and Wildlife Service  
300 Ala Moana Boulevard  
P. O. Box 50167  
Honolulu, Hawaii 96850

Dear Mr. Kosaka:

Subject: New Hanalei-Wailua Elementary School  
EIS Consultation Phase

Thank you for your August 26, 1986 comments on the subject project.

The Department of Land and Natural Resources has verified that the wetland in the vicinity of Wailua Home-stead Mauka Site (Site 1) is not significant and is several hundred feet from the site at its nearest point.

We appreciate your input for this project.

Very truly yours,

  
TEUANE TOMINAGA  
State Public Works Engineer

SH:mkk

Mr. Hideo Murokami  
August 21, 1986  
Page -2-

JACK K. SUWA  
CHAIRMAN, BOARD OF AGRICULTURE  
SUZANNE D. PETERSON  
SECRETARY



State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 So. King Street  
Honolulu, Hawaii 96814-2117  
August 21, 1986

GEORGE R. ARYDORHI  
DIRECTOR

MEMORANDUM

To: Mr. Hideo Murokami, State Comptroller  
Department of Accounting and General Services

Subject: Draft Environmental Impact Statement (EIS)  
Site Selection Report  
New Hanalei-Wailua Elementary School  
THK: 3-7-08: 20  
3-8-02: por. 19  
3-9-06: por. 11  
4-2-02: por. 59  
4-2-03: por. 12, Wailua, Kauai  
Acres: 8.07, 7.36, 11.48, 8.0, 8.0, respectively

The Department of Agriculture has reviewed the subject application and has the following comments to offer.

According to the application, five potentially suitable sites have been selected from which one will be chosen for a new elementary school (grades K to 6). Although some of the sites are on "prime" agricultural lands, as defined by the Agricultural Lands of Importance to the State of Hawaii (ALISH) system, little adverse impact to the agricultural resources of the area are foreseen due to the small acreage involved and the location of the sites adjacent to urban areas. The ALISH information included in the Draft EIS is accurate. It appears from the site selection process that these locations were very carefully chosen to be suitable for the intended use as well as having minimal adverse impacts.

Below is a listing of the soils found at these sites. The Soil Conservation Service Soil Survey identifies the soils as:

- Site 1, Puhi silty clay loam (PnB) with 3 to 8 percent slopes and a soil capability classification of Iie. Uses include sugarcane, pineapple, orchard, truck crops and pasture.
- Site 2, Puhi silty clay loam (PnA and PnB) with 0 to 8 percent slopes and a soil capability classification of Iis and Iie, respectively. Uses include sugarcane, pineapple, orchard, truck crops and pasture.

Site 3, Mokuieia clay loam (Mta) with little slope and Lihue silty clay (LhC) with 8 to 15 percent slopes with soil capability classifications of IIIv and IIIe, respectively. Uses include sugarcane, taro (Mta only), pineapple (LhC only) and pasture.  
Sites 4 and 5, Lihue silty clay (LhB) with 0 to 8 percent slopes with a soil capability classification of Iie. Uses include sugarcane, pineapple, truck crops orchard and wildlife.

(A soil capability classification of I indicates few limitations that restrict soil use, while VIII indicates severe limitations. A letter "e" refers to erosion hazard, "w" is wet or poorly drained areas and "s" is stoniness.)

The parcels have Land Study Bureau Overall Productivity Ratings of:

- Site 1 - C78 with good productivity potential for sugarcane, grazing and orchard.
- Site 2 - E39 with poor productivity potential.
- Site 3 - (1) C41 with good productivity potential for sugarcane, forage, grazing and orchard, (2) D93 with poor productivity potential.
- Sites 4 and 5 - B41 with good productivity potential for most crops.

Thank you for the opportunity to comment.

*Jack K. Suwa*  
JACK K. SUWA  
Chairman, Board of Agriculture

cc: OEQC



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

MAHE K. ITOHAKA  
STATE COMPTROLLER

LETTER (P) 1986-6

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 111, HONOLULU, HAWAII 96810

OCT 21 '86

Honorable Jack K. Suwa  
Chairman, Board of Agriculture  
Department of Agriculture  
State of Hawaii  
1428 South King Street  
Honolulu, Hawaii 96814-2512

Dear Mr. Suwa:

Subject: New Hanaleiua-Mailua Elementary School  
EIS Consultation Phase

Thank you for your August 21, 1986 comments on the subject project which support our site selection process. The process is geared toward addressing and minimizing adverse environmental impacts, including impacts to agricultural resources.

The additional information on soils and overall agricultural productivity ratings for each site is appreciated and should be useful in selecting the final site.

Very truly yours,

  
HIDEO MURAKAMI  
State Comptroller



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P. O. BOX 2104  
HONOLULU, HAWAII 96810

OFFICE OF THE SUPERINTENDENT

August 27, 1986

Honorable Hideo Murakami  
State Comptroller  
Department of Accounting & General Services  
Division of Public Works  
1151 Punchbowl Street  
P. O. Box 119  
Honolulu, Hawaii 96810

RE: Site Selection Report  
New Hanamaulu-Mailuu Elementary School

Dear Mr. Murakami:

The Department of Education has reviewed the site selection report and draft environmental impact statement for the new Hanamaulu-Mailuu Elementary School in Kauni District and recommends locating the new elementary school at Site 4 - Former Hanamaulu Elementary School Site.

Our recommendation is based on several factors including:

1. The comparative evaluation gives Site 4 the best over-all rating.
2. Site 4 is located close to a growing community which will assure a continued and sustained operation of the school.
3. Further community and population growth in the Puhi-Iihue-Hanamaulu communities will enable the Department to accommodate increased enrollment with boundary adjustments.
4. The number of students requiring busing would be minimized.

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

Site Selection Report  
New Hanamaulu-Mailuu Elementary School  
Page 2

Based on the above, the Department of Education, in consultation with Kauni District, recommends Site 4 as the location of the new Hanamaulu-Mailuu Elementary School.

Sincerely,

Francis H. Iatani  
Superintendent

PHM:myn

cc: Mr. Nakashima  
Office of Business Services

GEORGE S. JACOBSON  
Director



HONORABLE FRANCIS HATANAKA  
Superintendent  
Department of Education  
STATE OF HAWAII  
P. O. BOX 2360  
MONOLULU, HAWAII 96804  
OCT 21 1986

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 110, HONOLULU, HAWAII 96810

OCT 21 1986

Honorable Francis Hatanaka  
Superintendent  
Department of Education  
State of Hawaii  
P. O. Box 2360  
Honolulu, Hawaii 96804

Dear Mr. Hatanaka:

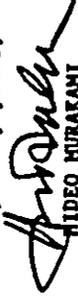
Subject: New Hanaleiua-Wailua Elementary School  
EIS Consultation Phase

Thank you for your August 27, 1986 comments on the subject project.

The Department of Accounting and General Services will complete the EIS process before a site recommendation is made. This will assure that all information available has been presented and evaluated. However, your preference for the Former Hanaleiua Elementary School Site (Site 4) is noted and will be considered in the final selection process.

We appreciate your input for this project.

Very truly yours,

  
HIDEO MURAKAMI  
State Comptroller

GEORGE R. ANTONIO  
DIRECTOR OF HEALTH



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3119  
HONOLULU, HAWAII 96811

LESLIE S. MATSUMURA  
DIRECTOR OF HEALTH

Ms. [unclear] [unclear] [unclear]  
(PH 10)

September 17, 1986

MEMORANDUM

To: Mr. Hideo Murekami, State Comptroller  
Department of Accounting & General Services

From: Director of Health

Subject: New Hanalei-Wallua Elementary School EIS Consultation Phase

Thank you for allowing us to review and comment on the subject project. We apologize for the late response. Our concerns are as follows:

1. Since sewer service is available at sites 3, 4 and 5, we recommend that the proposed school be constructed at one of these sites.
2. Should sites 1 or 2 be chosen as the school site, where no sewer system is available, the proposed project shall meet all applicable requirements of Act 282, SLH 1985 as amended by Act 302, SLH 1986. If the wastewater flows are greater than 800 gallons per day, a wastewater treatment works must be used instead of individual wastewater systems.
3. Due to the close proximity of canefields surrounding sites 3, 4 and 5, there may be problems in the future with dust, odor and noise pollution during normal agricultural activities.
4. Also, site 1 is surrounded by pasture lands. There may be problems in the future with odor and noise pollution.

Due to the general nature of the information submitted, we reserve the right to impose further environmental health restrictions on this project when more detailed information is provided for our review.

cc: DHO, Kauai

LESLIE S. MATSUMURA

JOHN MAHEZ  
GOVERNOR



RUSSEL S. NAGATA  
GOVERNOR  
KEN KIYABU  
COMPTROLLER

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 114, HONOLULU, HAWAII 96819

LETTER NO. (P)1187.7

NSR 6 1987

Honorable John Lewin  
Page 2

Ltr. No. (P)1187.7

Honorable John Lewin  
Director  
Department of Health  
State of Hawaii  
Honolulu, Hawaii

Dear Dr. Lewin:

Subject: New Hanamaulu-Mailua Elementary School  
EIS Consultation Phase

Thank you for your September 17, 1986 comments on the subject project. Our response to your comments are as follows:

1. Your preference for Sites 3, 4, and 5 for the reason given is noted and will be considered in the selection of the school site. However, please note that the lack of sewer service is reflected as an additional cost under the off-site improvements cost consideration. This is just one of the many factors used for selection of the school site.
2. The new school's wastewater flows will be greater than 800 gallons per day. Therefore, the cost of constructing a wastewater treatment works for Sites 1 and 2 is included in the on-site sewer improvement costs.
3. Although canefields are next to Sites 3, 4, and 5, only Site 3 is rated "poor" with anticipated adverse effects. Site 4 is rated "good" because the surrounding lands are zoned and planned for urban residential uses. Site 3 is rated "fair" because the agricultural activities and associated nuisances were deemed periodic and within acceptable limits.

4. Field observation of the pasture lands surrounding Site 1 indicated relatively low grazing activity. Moreover, the development trend of the area is residential. Therefore, the odor and noise associated with proximate pasture land use are determined to be insignificant.

We appreciate your input for this project.

Very truly yours,

RUSSEL S. NAGATA  
State Comptroller

GEORGE B. ANTONIO  
Secretary of State



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
P. O. BOX 521  
HONOLULU, HAWAII 96809

DEPARTMENT OF LAND AND NATURAL RESOURCES  
OFFICE OF THE CHAIRMAN  
1505 ALI'OLE DRIVE  
HONOLULU, HAWAII 96819  
TELEPHONE: 548-7837  
TELETYPE: 548-7837  
FACSIMILE: 548-7837  
FEDERAL AGENCY CONTACTS  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
WASHINGTON, D. C. 20250  
BUREAU OF RECLAMATION  
WASHINGTON, D. C. 20250  
BUREAU OF CONSERVATION  
WASHINGTON, D. C. 20250  
BUREAU OF GEOGRAPHIC NAMES  
WASHINGTON, D. C. 20250  
BUREAU OF LAND PLANNING  
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WASHINGTON, D. C. 20250  
BUREAU OF WILDLIFE MANAGEMENT  
WASHINGTON, D. C. 20250  
BUREAU OF WILDLIFE RESTORATION  
WASHINGTON, D. C. 20250  
BUREAU OF WILDLIFE RESEARCH  
WASHINGTON, D. C. 20250  
BUREAU OF WILDLIFE UTILIZATION  
WASHINGTON, D. C. 20250  
BUREAU OF WILDLIFE MANAGEMENT  
WASHINGTON, D. C. 20250  
BUREAU OF WILDLIFE RESTORATION  
WASHINGTON, D. C. 20250  
BUREAU OF WILDLIFE RESEARCH  
WASHINGTON, D. C. 20250  
BUREAU OF WILDLIFE UTILIZATION  
WASHINGTON, D. C. 20250

SEP 30 1986 DOCUMENT NO.: 648

The Honorable Hideo Murakami  
Department of Accounting and General Services  
Division of Public Works  
1151 Punchbowl St.  
P.O. Box 119  
Honolulu, HI. 96810

Dear Mr. Murakami:

SUBJECT: DEIS for New Hanamaulu-Wailua Elementary School

Thank you for the opportunity to review and comment on the subject Draft EIS. In essence, although the Draft EIS has no immediate impact on a substantial portion of our programs, we submit the following comments for your consideration.

HISTORIC SITES CONCERNS

A review of our records indicates that this project does not occur on historic properties that are listed on the Hawaii Register of the National Register of Historic Places, or that have been determined eligible for inclusion on the National Register of Historic Places

Due to the lack of archaeological surveys in the vicinity, we are not aware that significant resources exist in the project area; however, this does not confirm the absence of historical, cultural, architectural and/or archaeological resources on the property.

Recent research in Hawaiian archaeology has indicated that significant subsurface archaeological remains exist in locations such as the five proposed for the new elementary school. Therefore, our office recommends that an archaeological reconnaissance survey, including subsurface testing, be conducted by a qualified archaeologist in the project area, once a location is chosen.

Honorable Hideo Murakami -2- DOC. NO.: 648

Two copies of the reconnaissance survey report should be sent to our office for review and evaluation. Based on the findings of the reconnaissance survey, our office may have further recommendations for archaeological mitigation studies at the project site.

The agency coordinating our Department's response under the Chairperson's signature should add "State Historic Preservation Officer" to this title as Chairperson when the undertaking has any federal involvement including responses to a federal agency, A-95 responses, or involving federal funding, loan guarantee, permit or license.

RECREATION CONCERNS

There are no known public park concerns although some sites could be of value as future community parks. Site 3 is located near the Lydgate area of Wailua River State Park but no significant concerns are anticipated.

Should you have any questions, please feel free to contact the Office of Conservation and Environmental Affairs at 548-7837.

Very truly yours,

Sadaamu Ono, Chairperson  
Board of Land and Natural Resources



MOLO MURIZUMI  
COMPTROLLER  
STATE OF HAWAII  
SERIAL (P)1112.7

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P O BOX 113 HONOLULU HAWAII 96810  
LETTER NO (P)1112.7

FEB 17 1987

Honorable William Paty  
Chairman  
Department of Land and  
Natural Resources  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Paty:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Consultation Phase

Thank you for the September 30, 1986 comments on the  
subject project.

Your recommendations regarding an archaeological  
reconnaissance survey and subsequent measures as appropriate  
will be implemented after the school site is selected.

Very truly yours,  
  
RUSSEL S. MACATA  
State Comptroller

SIGNED: R. ANDERSON  
Comptroller

UNITED STATES  
DEPARTMENT OF  
AGRICULTURE

SOIL  
CONSERVATION  
SERVICE

P. O. BOX 50004  
HONOLULU, HAWAII  
96850

August 18, 1986

Department of Accounting and General Services

ATTN: Mr. Stephen Miwa  
Division of Public Works  
1151 Punchbowl Street  
P.O. Box 119  
Honolulu, HI 96810

Gentlemen:

Subject: New Hanaleiua-Wailua Elementary School, Island of Kauai, Hawaii  
EIS Consultation Phase

We reviewed the draft environmental impact statement for the subject project and have no comments to make.

Thank you for the opportunity to review the document.

Sincerely,

*Richard M. Duncan*  
RICHARD M. DUNCAN  
State Conservationist

GEORGE B. ARISTON  
CONTROLLER



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
161 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813

WAYNE J. YAMASAKI  
Inspector

DEPUTY INSPECTOR  
JOHNATHAN S. SHIMADA PH.D.  
WALTER D. SOYAK  
ADAM W. MARTINI

MINISTRY DIRECTOR  
STEP 8-1542



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
161 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813

HIDEO MURAKAMI  
COMPTROLLER

WAYNE J. YAMASAKI  
INSPECTOR

LETTER # (P) 1992.6

OCT 21 1986

MEMORANDUM

TO: The Honorable Hideo Murakami, State Comptroller  
Department of Accounting and General Services

FROM: Director of Transportation

SUBJECT: NEW HANAMAULU-WAILUA ELEMENTARY SCHOOL, KAUAI  
EIS CONSULTATION PHASE

An evaluation of the alternative sites for the proposed Hanamalu-Wailua Elementary School has resulted in our belief that a site in Hanamalu may be more preferable because:

1. It is within walking distance for about half of the students, thereby resulting in less of an impact on Kuhio Highway;
2. Laukaha Street in Hanamalu is signalized for pedestrians; and
3. Kuhio Highway in Hanamalu has sidewalks.

The proposed school Sites 1 and 2 in Wailua Homesteads are objectionable because the Kuamoo Road right-of-way width is only 40 feet and lacks sidewalks and paved shoulders, thus making it hazardous for pedestrians.

Site 3 would probably generate the most traffic on Kuhio Highway since the location is not very populated and many people would be required to commute from outside areas to the school.

We appreciate this opportunity to provide comments.

*Wayne J. Yamasaki*  
Wayne J. Yamasaki

Honorable Wayne J. Yamasaki  
Director of Transportation  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Mr. Yamasaki:

Subject: New Hanamalu-Wailua Elementary School  
EIS Consultation Phase

Thank you for your August 28, 1986 comments on the subject project.

Your preference for Sites 4 and 5 for the reasons given is noted and will be considered in the selection of the final site.

With regard to Sites 1, 2 and 3, the right-of-way width, hazards to pedestrians and location away from population centers (Site 3) are considered in the site selection process and are reflected in the ratings for each site. However, we appreciate your concerns and will consider your objections to these sites in selecting the final site.

Very truly yours,

*Hideo Murakami*  
HIDEO MURAKAMI  
State Comptroller

Mr. Hideo Hasekawa  
August 19, 1986  
Page (2)

Sewers

Site 4, Former Hanamulu School Site, is accessible to public sewer lines. However, a lift station may be required on site for portions of the proposed school due to the topography of the site.

The report rates Site 5, Liliue Plantation Yacht Site, as poor for adequacy of sewer service (Appendix A) due to extensive off-site development of sewer connections. However, Table A-2, Off-site Improvement Costs, indicates that the off-site costs for Site 5 is less than Site 3 which was rated good.

We wish to point out that although Site 5 was not included in the service area for the respective sewer system, the sewer line at the intersection of Lanikua Street and Kuliho Highway in the direction of Liliue can accommodate the school. The off-site development required would be from the school site to the sewer line at the noted intersection.

Thank you for the opportunity to offer our comments on the project.

Very truly yours,

*Steven Eyturo*  
STEVEN EYTURO  
County Engineer

VE/HR'eb



STEVEN M. KYOHO  
COUNTY ENGINEER  
1000 SOUTH KAUAI AVENUE  
LILIOE, HAWAII 96756

RUSSELL SUGAYAO  
COUNTY ENGINEER  
1000 SOUTH KAUAI AVENUE  
LILIOE, HAWAII 96756

TORAY T. KUNIMURA  
COUNTY ENGINEER

COUNTY OF KAUAI  
DEPARTMENT OF PUBLIC WORKS  
1000 SOUTH KAUAI AVENUE  
LILIOE, HAWAII 96756

August 19, 1986

Mr. Hideo Hasekawa  
State Comptroller  
Department of Accounting  
& General Services  
P. O. Box 119  
Honolulu, HI 96810

Dear Mr. Hasekawa:

SUBJECT: NEW HANAMULU-HA ILUA ELEMENTARY SCHOOL  
FIN CONSULTATION PHASE

We are providing comments as requested in your letter dated August 1, 1986 in regards to the captioned project.

Roadways

The sites will have access to various County roadways. The evaluation criteria on the adequacy of roadways appears to be focusing upon a 44 foot wide road right of way to obtain a rating of good. We wish to point out that a street with a 44 foot width right of way is categorized as a minor street and when constructed with curbs, gutters, and sidewalks would provide two travel lanes and only one parking lane. Generally, parking along minor streets (with curbs, gutters and sidewalks) are permitted along both sides of the street with traffic weaving between the parked vehicles. Consequently, it may be appropriate to use a 56 foot wide right of way as a collector street criteria as the minimum street to provide access to the site.

Additionally, adequacy of roadways should include parameters such as pavement width, driveway and intersection sight distance, alignment and grades and alternate access routes and their geometric conditions. We believe that a site should be rated good if there are alternate routes for access. However, the evaluation criteria should also include the traffic impacts on the alternate routes.



STATE OF HAWAII  
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 P. O. BOX 114, HONOLULU, HAWAII 96810

RUSSEL B. NAKATA  
 DEPUTY COMPTROLLER  
 HHS STAFF

LETTER NO. (P)1310.7

APR 8 1987

Mr. Steven Kyono  
 Page 2

Ltr. No. (P)1310.7

Mr. Steven Kyono  
 County Engineer  
 Department of Public Works  
 County of Kauai  
 4396 Rice Street  
 Lihue, Kauai, Hawaii 96766

Dear Mr. Kyono:

Subject: New Hanamaulu-Wailua Elementary School  
 EIS Consultation Phase

Thank you for your August 19, 1986 comments on the subject project. Our responses to your comments are as follows:

1. Roadways

- a. The criterion for adequacy of roadways will be revised to reflect the following:

R.O.W.	Rating
56 feet	Good (+)
44 feet	Fair (0)
Less than 44 feet	Poor (-)

If the access road has a 44-foot R.O.W., we will request that parking be permitted only on one side so that there would be two travel lanes open.

- b. The criterion for adequacy of roadways considers roadway geometrics in its evaluation by basing its rating on R.O.W. widths and the existence of or need for road improvements meeting County standards.

- c. Alternate routes for access are evaluated under the criteria for accessibility.

- d. The report includes an analysis of traffic impacts along Kuhio Highway. It indicates that regardless of the site selected, traffic generated by the school will not adversely impact traffic conditions.

2. Sewers

- a. Site 4 Sewerage  
 The cost of a lift station will be included in the on-site sewerage cost for Site 4.
- b. Site 5 Sewerage

Thank you for the additional information on the availability of a nearby sewer line. Site 5 will be reevaluated to reflect this information.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA  
 State Public Works Engineer

SH:jk



**CITIZENS UTILITIES COMPANY**



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

GEORGE R. SHIMODA  
DIRECTOR

MOLO KUMAKUMI  
COMPTROLLER

WEE H. TOKINAGA  
MANAGER

LETTER NO (P) 1986.6

P. O. BOX 278 - ELEELE, KAUAI, HAWAII 96705

September 3, 1986

In reply refer to:  
File #86-6-302RR

Department of Accounting and General Services  
Division of Public Works  
1151 Punchbowl Street  
P. O. Box 119  
Honolulu, HI 96810

Attention Mr. Stephen Miwa

SUBJECT: NEW HANAMAULU-WAILUA ELEMENTARY SCHOOL EIS STATEMENT

Gentlemen:

We have reviewed the Electrical/Telephone portion of the EIS statement and have the following comment. "Kauai Electric Company" should be replaced with "Citizens Utilities Company, Kauai Electric Division."

Thank you for allowing us the opportunity to review the entire study. If further questions arise concerning this project, please do not hesitate to contact Mr. Robert Romero or Mr. Glen Takenouchi in our Engineering office at 335-6228.

Very truly yours,

*Alton H. Miyamoto*  
ALTON H. MIYAMOTO  
Manager, Engineering

AHM:dk

OCT 20 1986

Mr. Alton H. Miyamoto  
Manager, Engineering  
Citizens Utilities Company  
P. O. Box 278  
Eleele, Kauai, Hawaii 96705

Dear Mr. Miyamoto:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Consultation Phase

Thank you for your September 3, 1986 comments on the subject project.

As requested, references to "Kauai Electric" will be revised to "Citizens Utilities Company, Kauai Electric Division."

We appreciate your input for this project.

Very truly yours,

*Teuane Tokinaga*  
TEUANE TOKINAGA  
State Public Works Engineer

SH:mkk

**KAUAI ELECTRIC**

A DIVISION OF CITIZENS UTILITIES COMPANY  
ELECTRIC TELEPHONE, WATER AND GAS SERVICE TO CUSTOMERS IN OVER 900 COMMUNITIES IN MANY STATES ACROSS THE NATION

HAWAIIAN TELEPHONE  
GTE

August 14, 1986

Mr. Hideo Murakami  
Dept. of Acct. & Gen. Services  
Division of Public Works  
1151 Punchbowl Street  
P. O. Box 119  
Honolulu, HI 96810

Subject: New Hanamaulu-Wailua Elementary School  
EIS Consultation Phase

Gentlemen:

Thank you for the opportunity to comment on your subject named project. Hawaiian Telephone Company can and will furnish communication services with no adverse impact on the environment at all sites indicated in your study.

May I also take this time to add my support for your proposal and extend my appreciation for your commendable effort in addressing the educational needs of our children.

Sincerely,

  
James Tehada  
Senior Engineer

JT:ea



STATE OF HAWAII  
DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 119, HONOLULU, HAWAII 96810

MOLO KAUHAU  
KUMU  
MAE K. TOMINAGA  
KUMU KUMU

LETTER NO. (P) 1985-16

OCT 20 1986

Mr. James Tehada, Senior Engineer  
Hawaiian Telephone  
P. O. Box 591  
Lihue, Hawaii 96766

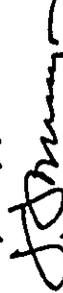
Dear Mr. Tehada:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Consultation Phase

Your August 14, 1986 comments and support for our proposal are appreciated.

A copy of your letter will be appended to the Draft EIS.

Very truly yours,

  
TEDANE TOMINAGA  
State Public Works Engineer

SM:mkk

69 Aieo Street  
Kapaa HI 96746  
August 22, 1986

Department of Accounting and General Services  
P.O. Box 119  
Honolulu HI 96810

Dear Sir:

I am responding as a parent, and as a public school teacher in the Kuaui School District, to the Site Selection Report and Draft Environment Impact Statement for the New Hanamaulu - Wailua Elementary School in Kuaui. We live in the Wailua Homesteads area, and our youngest of 3 sons will be in the third grade in 1990 and will be involved in the opening of the new school. My older sons presently attend Kapaia Elementary School.

I hope you will consider the following comments as to the site selections for the next stage of planning:

Traffic is the greatest concern in the areas of the two Wailua Homesteads and the two sites in Hanamaulu. My husband travels daily to work from Wailua Homesteads and through Hanamaulu and I occasionally drive that route on business before and after school hours. We strongly feel that it will be a great hazard from the standpoint of pedestrians and traffic will be greatly increased in those areas of residence should the new school be erected there.

However, the traffic in the Wailua Golf Course Site would not be greatly affected because of the wide highway and the flowing traffic. Turning from the highway to the school should be situated there would be very easily maneuvered with the existing wide lanes. Having the school in that site would not be hazardous to the traffic or pedestrians or community.

I am in favor of the Wailua Golf Course Site, also because it is owned by the State of Hawaii and the other sites would have to be purchased.

As a teacher of the primary Gifted/Talented students at Kapaia Elementary School I foresee the utilization of the Wailua Golf Course vicinity at the shoreline. Outdoor education and advantages of the surrounding environment could greatly enhance the teaching of the students. So much can be learned from the ocean and it would be very accessible at that site.

The Wailua Golf Course Site is also free from industrial and agricultural nuisances, unlike the sites in Hanamaulu. We resided in the Hanamaulu Teachers Cottages in 1973 (under State housing) and the sugar cane hauling and burning, and traffic was intolerable. I do not wish to subject students to that. In 1973 the traffic from the highway to Hanamaulu School was already deplorable and it is even more so in 1986.

Page 2

I cannot see how we can allow anything more to add to that hazardous area on the corner of Hanamaulu School and Kuhin Highway. Those of us who live there and who drive through that town understand.

Also, Hanamaulu School is presently being used to serve as a day activity center for the disabled adults, a headstart program facility, and other community - related uses. Changing the school back into an elementary school would greatly affect these groups who surely are important in the community. I suggest we leave these programs there in the existing premises so they will not be affected.

Finally, as a parent I do not favor bussing the whole Wailua Homesteads students into another community to attend school should the site be in Hanamaulu. Nor do I favor bussing all the Hanamaulu students into the community of Wailua Homesteads which is about twenty minutes into time. That reminds me of the days in the South where students were purposely bussed into another community for purposes of integration against segregation. I feel there might be ill feelings of "one group in another's home territory."

Therefore, I am in favor of locating the school at the Wailua Golf Course Site which is between the two communities, like in neutral ground, free from differing opinions of communities, free from the hazardous traffic of Hanamaulu and the narrow residential roads of Wailua Homesteads.

Thank you for allowing me the opportunity to reply with my concerns.

Yours truly,

*Cheryl Inouye*

Mrs. Cheryl M. Inouye



STATE OF HAWAII  
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 P. O. BOX 114, HONOLULU, HAWAII 96810

MARCEL S. MASATA  
 CONSULTANT  
 1215 KEMERU  
 HONOLULU, HAWAII 96810

LETTER NO. (P)1209.7

MAR 19 1987

Mrs. Cherylyn M. Inouye  
 Page 2  
 Ltr. No. (P)1209.7

Mrs. Cherylyn M. Inouye  
 69 Aleo Street  
 Kapaa, Hawaii 96746

Dear Mrs. Inouye:

Subject: New Hanamaulu-Wailua Elementary School  
 EIS Consultation Phase

Thank you for your August 22, 1986 comments on the subject project. Your preference for the Wailua Golf Course Site and objection to the Hanamaulu and Wailua Homestead sites for the reasons given will be considered in the selection of the school site. However, we offer the following responses to your comments:

1. Traffic

Pedestrian and auto traffic safety for each site are evaluated and rated in the draft EIS. Pedestrian safety for sites 2, 3 and 4 was rated poor because of the need to provide traffic safety devices in addition to walkway/shoulder improvements. Traffic safety for all sites was rated good because it is a measure of the capability of the roadways to accommodate the anticipated traffic flows.

Although traffic is a concern, all aspects of the site selection criteria and the comparative site development costs must be considered for selection of a final site.

2. Land Acquisition

Although the Wailua Golf Course Site is owned by the State of Hawaii, its exclusive use for a school precludes other State agency uses. Therefore, estimated market values of the site must be included for evaluation purposes.

3. Shoreline Accessibility

The accessibility to a shoreline is an asset to education. However, it is not a school requirement and the same opportunity is available through field trips with suitable transportation services.

4. Industrial and Agricultural Nuisances

The former Hanamaulu Elementary School (Site 4) is rated good because the surrounding lands are zoned Residential, Special Treatment, and their developments are projected to coincide with the school's implementation plans. This should eliminate the agricultural nuisance.

The Wailua Golf Course site (Site 3) is rated fair because the entire area is zoned agricultural and the site is directly across an actively farmed canefield.

5. Displacement of Tenants

If the former Hanamaulu Elementary School (Site 4) is selected as the school site, DAGS will coordinate the smooth and timely relocation of all agencies currently using the premises.

6. Bussing

Many schools throughout the state accommodate two or more communities because of geographic locations and limited enrollment. This is the case for Wilcox Elementary which serves students from Lihue and Hanamaulu and also the case for Kapaa Elementary which serves students from Kapaa and Wailua Homesteads. As communities continue to grow, they will most likely have a school built in their "home territory".

We appreciate your input for this project.

Very truly yours,

*J. Tomiyama*

TEUVANE TOMINAGA  
 State Public Works Engineer

SM:jk

6130 Kolopua St.  
Kapaa, Hawaii 96746  
August 29, 1986

Dept. of Accounting and General Services

Division of Public Works  
1151 Punchbowl Street  
P.O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Murakami and Mr. Miva,

Hello, my name is Mary Ishida. I am the mother of two children ages 6 and 4. I am writing about the site selection for the new Wailua-Hanamaulu Elementary School.

Nowhere in the report by Okamoto and Associates did it describe the unique socio-cultural aspects of the two communities and the challenge of serving them with a single school. Geographically they are at opposite ends of the district. When students matriculate they will be going in opposite directions for high school. This polarity is again seen in the two most feasible sites urban (Hanamaulu) vs. rural (Wailua).

The Hawaii State Plan states as one of its objectives "the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities and aspirations." As a resident of Wailua, much of my time is spent going to Liliue State and County business, shopping, even to go to the Westside, etc. However I choose not to be a part of the Hanamaulu-Liliue community. It is too busy, noisy, and altogether too urban. What a pleasure it is to turn up Kuamoo Road, to look on its green hills and feel the temperature drop several degrees as I pass Opaekaa Falls and return home. I go through Hanamaulu several times a week. How many times do people from Hanamaulu enter Wailua? Enjoying its quietness, its beauty, its coolness. How much better to educate children in such an environment as opposed to a school located on the busiest highway on Kauai. The "variety of opportunities"

would seem more expansive in Wailua.

One particularly disturbing point failed to be included in the traffic considerations of the Hanamaulu sites. The new access road will not solve all traffic problems. The new Westin Hotel will be opening up in 1987. It will have over 800 rooms. How will all the visitors, let alone all the employees necessary in staff this mega resort (just two miles from Hanamaulu) travel about the island? Hanamaulu will be hit from two sides.

I would now like to question the objectivity of Okamoto and Associates in the preparation of this report. On page A-1 the Wailua sites are judged fair for natural beauty, Hanamaulu is judged as good. Anyone who visited these sites would disagree. Hanamaulu was also judged as good concerning industrial and agricultural nuisances. How can this be so, with a cane field next door and the maintenance yard across the road? They also judged traffic safety as good for Hanamaulu. Amazing! For months the local newspapers have talked of nothing but the terrible traffic situation in the Hanamaulu-Liliue area. The language of the report is slanted as well. Consider on page A-33, busing is defined in percentages of those to be bussed, stressing how great the Wailua amount is. On page A-34, when dollar amounts are discussed, Hanamaulu's share is termed "as only half" the number of students to be bussed. In reality the difference in percentage of students to be bussed is less than 10 percent. I resent the assumption throughout the report that there is only one site choice to be made and that is Hanamaulu School.

As a parent I would love to see the school in Wailua but I feel the only equitable site would be Wailua Golf Course site. It would put all parents and student on an equal footing. The school would have a chance to succeed in a positive atmosphere. Thank-you for your consideration.

Sincerely,

*Mary Ishida*  
Mary Ishida ( Mrs. Clyde )



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

HAROLD S. SHAMATA  
DIRECTOR  
DEN ETUAKI  
DEPUTY DIRECTOR  
LETTER NO. (P) 1274.7

MAR 25 1987

Mrs. Mary Ishida  
6130 Kolopua Street  
Kapaa, Hawaii 96746

Dear Mrs. Ishida:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Consultation Phase

Thank you for your August 29, 1986 comments on the subject project. Our responses to your comments are as follows:

1. Single School Serving Two Communities  
Servicing two communities at opposite ends of the district with a single school is not unique since many schools statewide are currently operating under similar conditions. Historically, schools have always accommodated two or more communities because of geographic locations, limited enrollment and limited fiscal resources of the government. This is the case for Kapaa Elementary School which serves students from Kapaa and Wailua Homesteads.
2. Site Preference  
Your preference for the sites in Wailua or the Wailua Golf Course site is noted and will be considered in the selection of the school site. However, please note that the selection of a school site must consider all aspects of school, community and cost considerations.
3. Traffic  
The new Hanamaulu-Ahukini bypass road was designed to alleviate congestion on Kuhio Highway through

Mrs. Mary Ishida  
Page 2

Ltr. No. (P)1274.7

Hanamaulu Town. The traffic analysis verifies this by showing a significant traffic volume reduction for 1990. (Table 14)

Although traffic from the proposed Westin Hotel was not included in the analysis, a qualitative assessment shows that the hotel employees will use the bypass road and will not significantly add to traffic within Hanamaulu. A further reduction in traffic impacts will be realized when roadway improvements are constructed in the Lihue area by the hotel. This commitment was made by the hotel as part of the approval process for rezoning.

4. Natural Beauty

The assessment of natural beauty considers the aesthetics of trees, plants, rock formations and overhead utility lines. As such, the serenity of a rural setting should also be a consideration. Therefore, the rating for both Wailua Homestead Sites (Sites 1 and 2) will be reassessed to consider the aesthetics of a pasture.

5. Industrial and Agricultural Nuisances

Site 4 is rated good because the adjacent canefields and lands are zoned and planned for residential use. Residential development and urbanization of the area is projected to begin by 1990.

Site 5 is rated poor because of the anticipated noise, dust, odors and other nuisances from nearby agricultural activities.

6. Traffic Safety

All sites were rated good for the traffic safety criterion which is based on the existence of wide major thoroughfares capable of accommodating the anticipated peak school traffic with appropriate traffic improvements.

Mrs. Mary Ishida  
Page 3

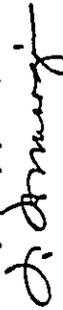
Ltr. No. (P)1274.7

7. Bussing

The text will be revised to reduce any impression that the Hanamalu site is the only choice to be made. Please be assured that we do not favor a site and that a site recommendation will be made only after the EIS and site selection study is completed.

We appreciate your input for this project.

Very truly yours,



TEVANE TOMINAGA  
State Public Works Engineer

SM:jk

JOHN WAIHEE  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES



RUSSEL B. MAGATA  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
KEN KIYABU  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

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

LETTER NO. (E)119L.7

MAR 6 1987

Hideo Murakami  
Department of Accounting and General Services  
Division of Public Works  
1151 Punchbowl Street  
P.O. Box 119  
Honolulu, Hawaii 96810

Ms. Sharon Masuoka  
4635 Kwaena Loop  
Kapaa, Kauai, Hawaii 96746

Dear Ms. Masuoka:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Consultation Phase

Thank you for your August 28, 1986 comments on the subject project. Our responses to your comments are as follows:

1. Traffic:

Table 13 of the report shows that traffic along Kuhio Highway in the vicinity of Wailua will vary between stable flow, which is characterized by restrictions on speed and maneuverability, and forced flow, which is characterized by low speeds and frequent stops.

Table 14 of the report shows that traffic along Kuhio Highway in the vicinity of Hanamaulu will improve to stable flow due to the completion of the Hanamaulu-Ahukini Cutoff Road.

As shown in both Tables, the construction of the school in 1990 will not significantly affect traffic characteristics along Kuhio Highway.

2. Potential for Future Growth

Based on proposed residential developments, both Hanamaulu and Wailua Homestead will experience relatively equal population growth.

3. Rating for Natural Beauty

The criterion for Natural Beauty considers existing trees, plants, rock formations and overhead utility lines on the site being evaluated. The rating for both of the Wailua Homestead Sites (Sites 1 and 2) will be reassessed to consider the aesthetics of a pasture.

August 28, 1986

Dear Mr. Murakami:

Thank you for sending me a copy of the Site Selection Report and Draft Environmental Impact Statement for the New Hanamaulu-Wailua Elementary School. I have read the report and would like to comment on the following:

1. I still see traffic as a major problem if the school is built in Hanamaulu. Although the Hanamaulu-Ahukini Cutoff Road is supposed to alleviate some of the traffic, the newspapers and general public does not see it as the best solution to the traffic congestion going toward Lihue in the morning and toward Kapaa during the late afternoon. One needs only to drive to Lihue from Kapaa during school days and during the summer to note that school transportation does affect traffic conditions markedly. The last tsunami emergency we experienced which resulted in massive traffic congestion on Kuhio Highway toward Kapaa, shows that traffic in this direction will always be heavy after working hours. If the school was built in the Wailua sites, school traffic would be going opposite of peak business traffic hours.

2. The Wailua Homestead area has a greater potential for future growth because of the land that's available than does the Hanamaulu area. This means that in the future more children would be from the Wailua area and hence the school should be located in an area of greater school population.

3. I disagree with the rating that rates Hanamaulu good on Natural Beauty and Wailua Homesteads fair. How was this rating decided....one is a pasture, the other a canefield.

4. A real plus for the Wailua Golf Course site is that it is almost midway between Hanamaulu and Wailua Homestead and thus equally accessible to both areas. Of course this does pose the problem that almost all of the students would have to be bused.

After reading the report, I feel that in all probability, the state will select the Hanamaulu School site because it seems to be the most feasible cost-wise. I would not agree with this choice but I would be very interested in any comments made by residents of Hanamaulu.

Sincerely,  
*Sharon Masuoka*

Ms. Sharon Masuoka  
Page 2

Ltr. No. (P)1191.7

4. Location of Wailua Golf Course Site (Site 3)

We agree that the central location of the Wailua Golf Course site is a positive asset but, as you indicated, it has the concomitant disadvantage of having the highest bussing requirements among all sites. These aspects will be assessed in the site selection process.

5. A site recommendation will be made after the Site Selection Report and EIS is completed. This helps to insure that all of the information available has been presented and evaluated before the recommendation is made.

We appreciate your input to this project.

Very truly yours, .



TEUANE TOMHINAGA  
State Public Works Engineer

SH:jk

XIV. EIS PUBLIC REVIEW PHASE, COMMENTS AND RESPONSES

#### XIV. EIS PUBLIC REVIEW PHASE, COMMENTS AND RESPONSES

The following agencies, organizations, and individuals provided comments in reviewing the Site Selection Report and Draft EIS. A total of 19 comment letters were received.

A double asterisk (\*\*) indicates those which submitted written comments requiring substantive responses. The comment and response letters are reproduced in this section.

A single asterisk (\*) indicates those letters not requiring substantive responses. The comment letters are reproduced in this section.

##### A. FEDERAL AGENCIES

- \*\* 1. Department of the Army, U.S. Army Engineer District, Honolulu
- \* 2. U.S. Department of Agriculture, Soil Conservation Service
- \* 3. U.S. Department of Defense, Department of the Navy, Commander, Naval Base Pearl Harbor
- \*\* 4. U.S. Department of Interior, Fish and Wildlife Service

##### B. STATE AGENCIES

- \*\* 1. Department of Agriculture
- \* 2. Department of Defense
- \*\* 3. Department of Education
- \*\* 4. Department of Education, Elsie H. Wilcox Elementary School
- \*\* 5. Department of Health
- \*\* 6. Department of Land and Natural Resources
- \* 7. Department of Planning and Economic Development
- \*\* 8. Department of Transportation
- \* 9. Office of Environmental Quality Control
- \*\* 10. University of Hawaii at Manoa, Environmental Center
- \* 11. University of Hawaii at Manoa, Water Resources Research Center

##### C. COUNTY AGENCIES

- \*\* 1. Department of Water
- \*\* 2. Planning Department

##### D. UTILITIES

- \* 1. Citizens Utilities Company

##### E. INDIVIDUALS

- \*\* 1. Mrs. Cherylyn M. Inouye



DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
BUILDING 220  
FT. SHAFTER, HAWAII 96860-5440

REPLY TO  
ATTENTION OF:

JUNE 2, 1987

Mr. Steve Miwa  
Division of Public Works,  
Planning Branch  
Department of Accounting  
and General Services  
P.O. BOX 119  
Honolulu, Hawaii 96810-0119

Dear Mr. Miwa:

Thank you for the opportunity to review and comment on the New Hanaleiua-Wailua Elementary School, Hanaleiua-Wailua, Kauai. The following comments are offered:

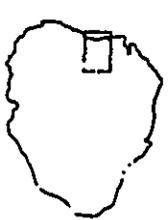
a. According to the Flood Insurance Rate Map (FIRM) revised in March 1987, the proposed sites are now located in Zone X only, an area of minimal flooding. Tax maps and revised FIRMs are enclosed.

b. Pages III-4, 5, 6 adequately cover Erection.

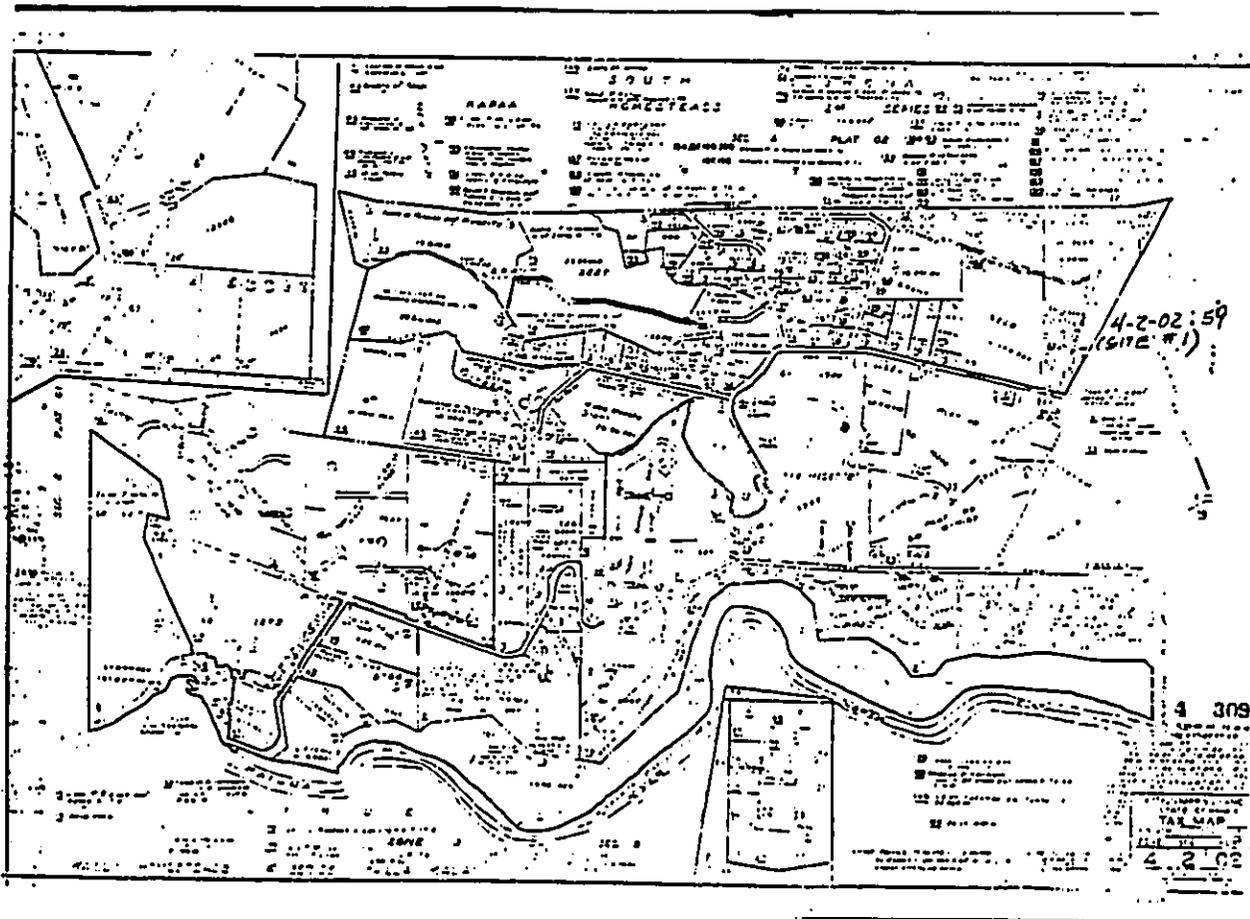
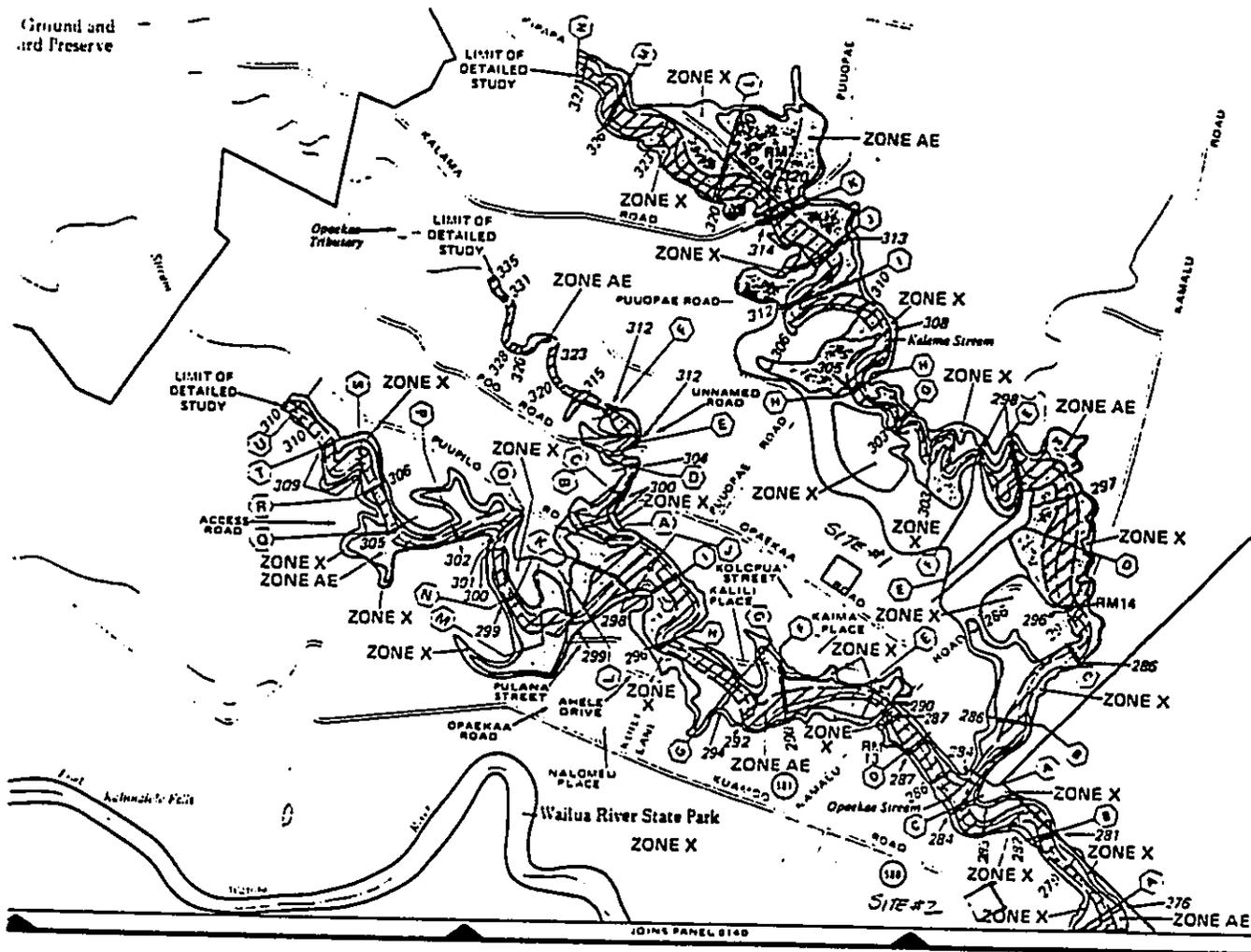
Sincerely,

  
Kinut Ching  
Chief, Engineering Division

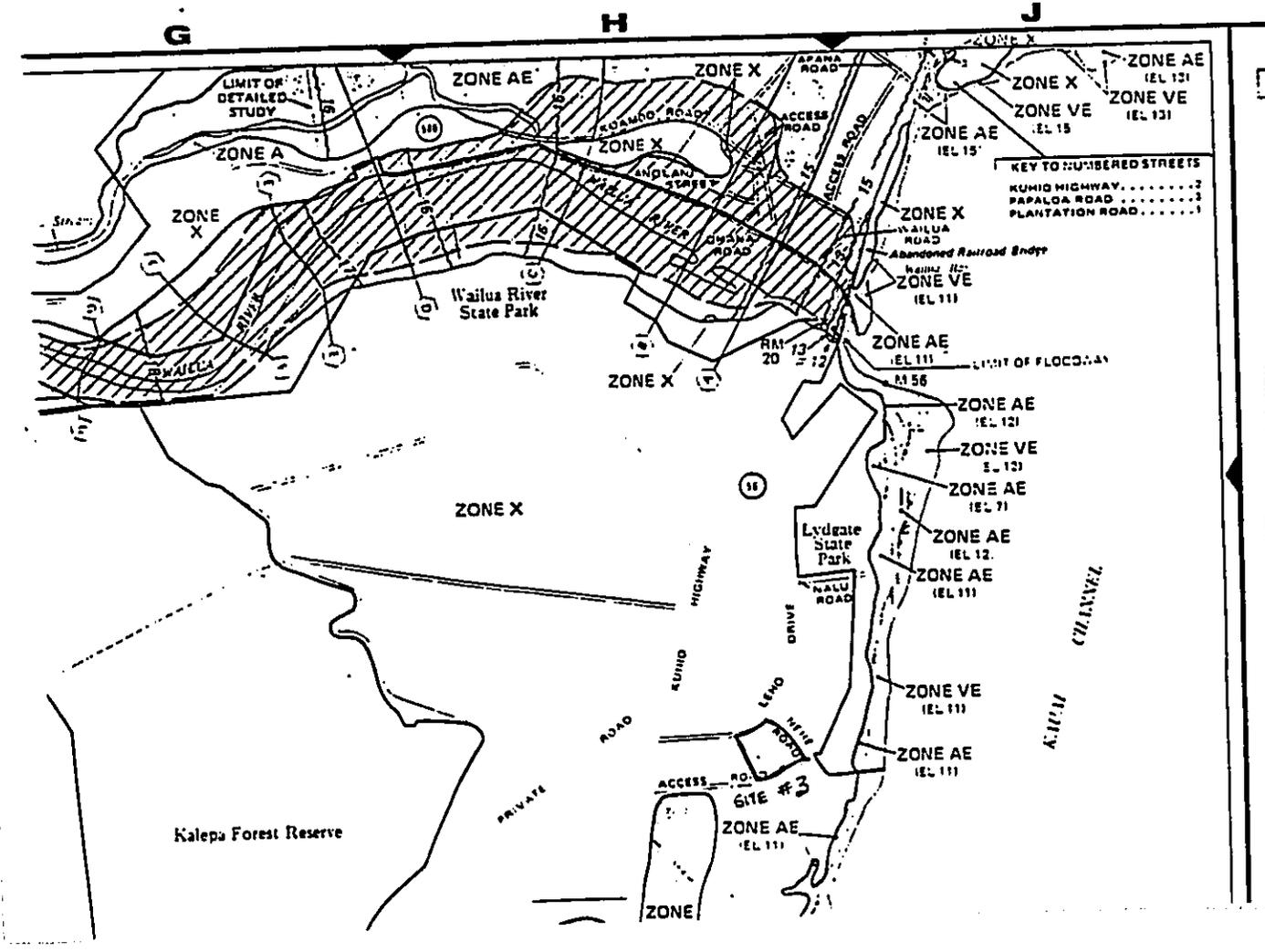
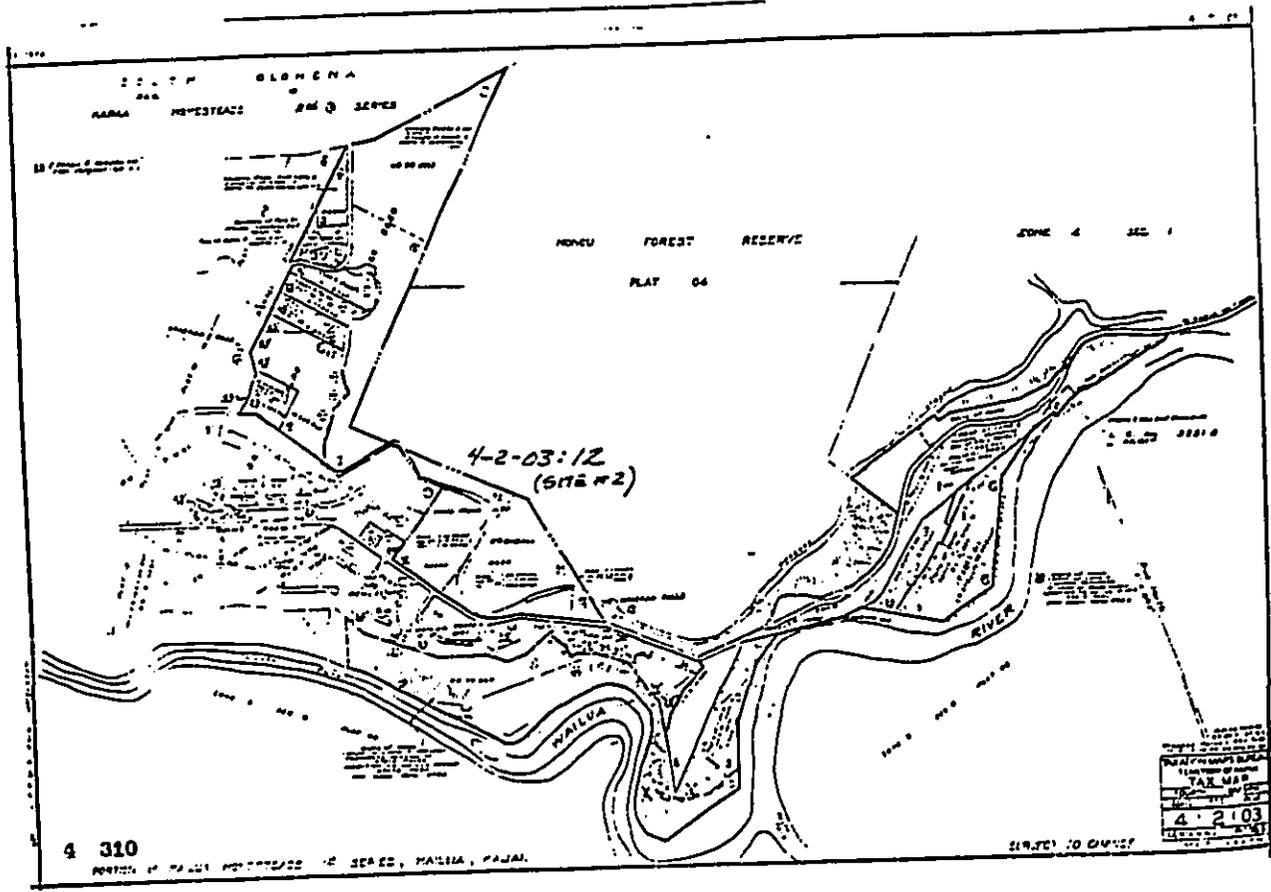
Enclosures

NATIONAL FLOOD INSURANCE PROGRAM	
<b>FIRM</b>	<b>FLOOD INSURANCE RATE MAP</b>
<b>KAUAI COUNTY, HAWAII</b>	
SITES 1-3	
PANEL 140 OF 225 <small>(SEE MAP INDEX FOR PANELS NOT PRINTED)</small>	
	
<small>PANEL LOCATION</small>	
COMMUNITY-PANEL NUMBER 150002 0140 C	
MAP REVISED: MARCH 4, 1987	
 Federal Emergency Management Agency	

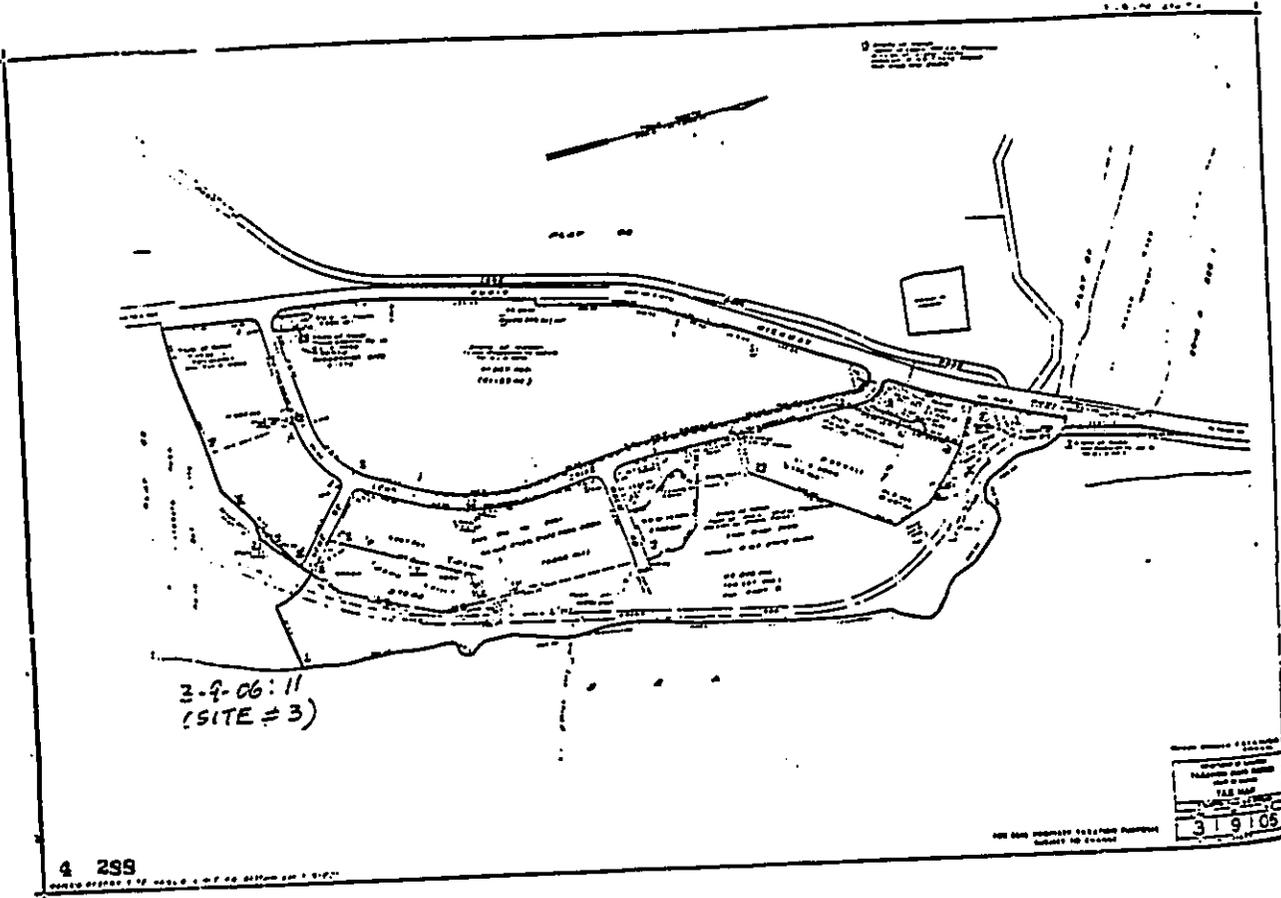
RECEIVED AS FOLLOWS



RECEIVED AS FOLLOWS



RECEIVED AS FOLLOWS



NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

KAUAI COUNTY,  
HAWAII  
SITES 4 & 5

PANEL 130 OF 225  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

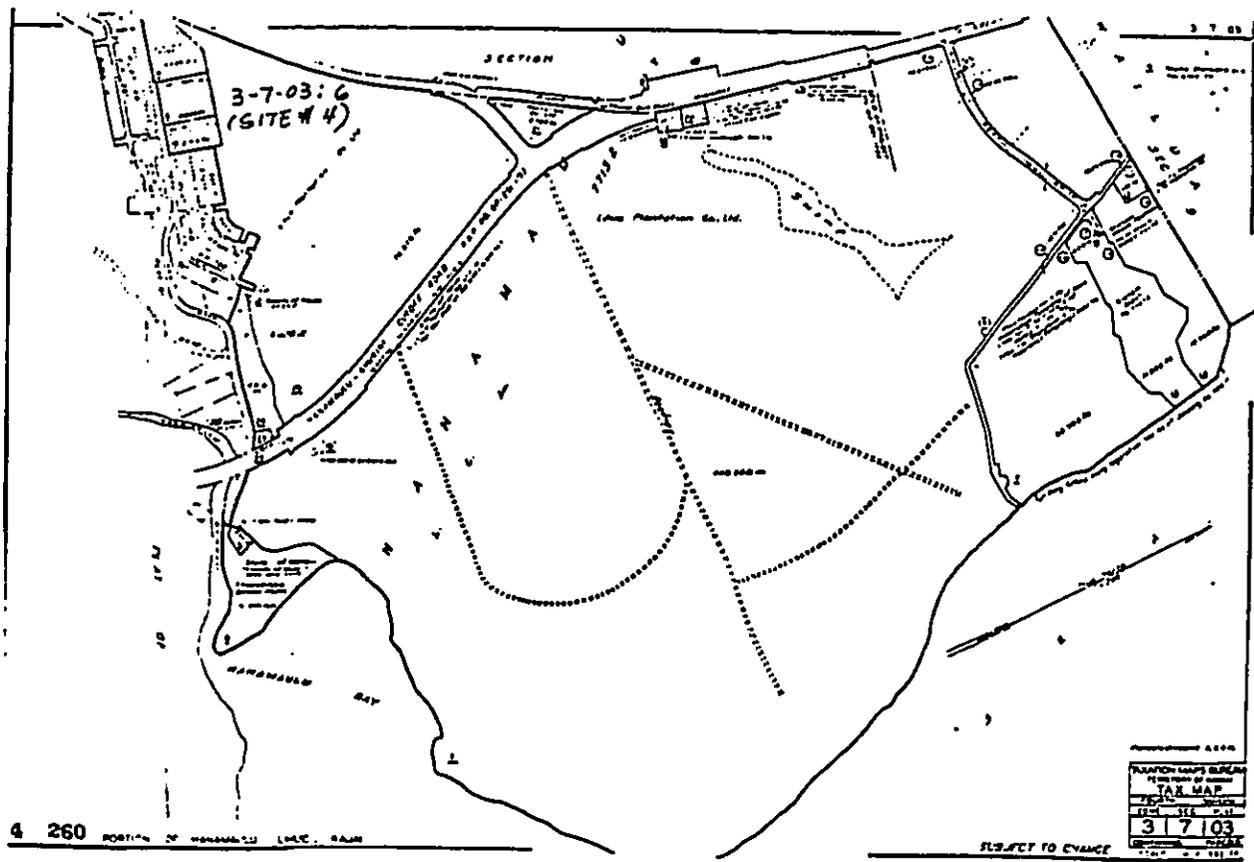
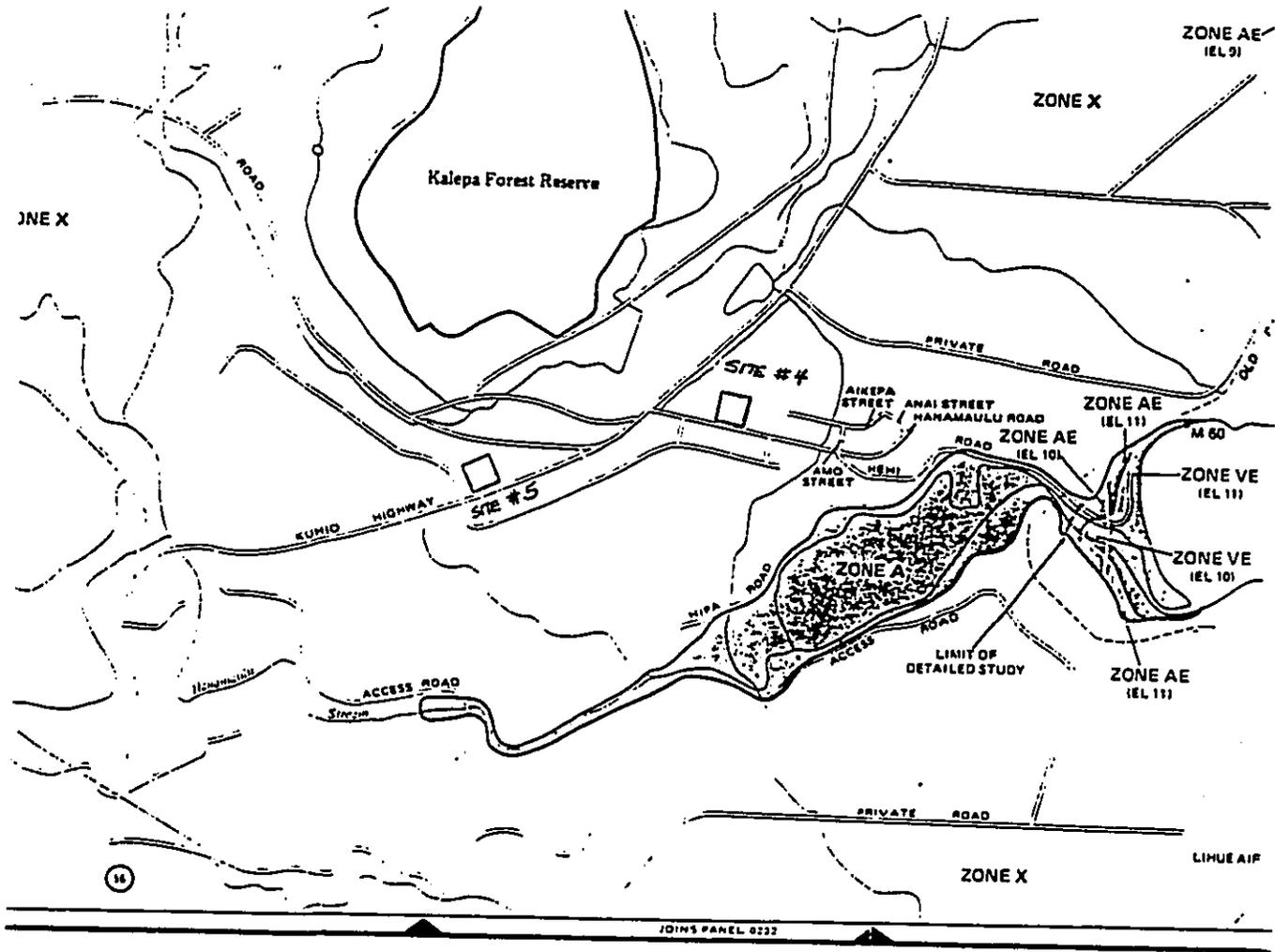
PANEL LOCATION

COMMUNITY-PANEL NUMBER  
150002 0130 C

MAP REVISED:  
MARCH 4, 1987

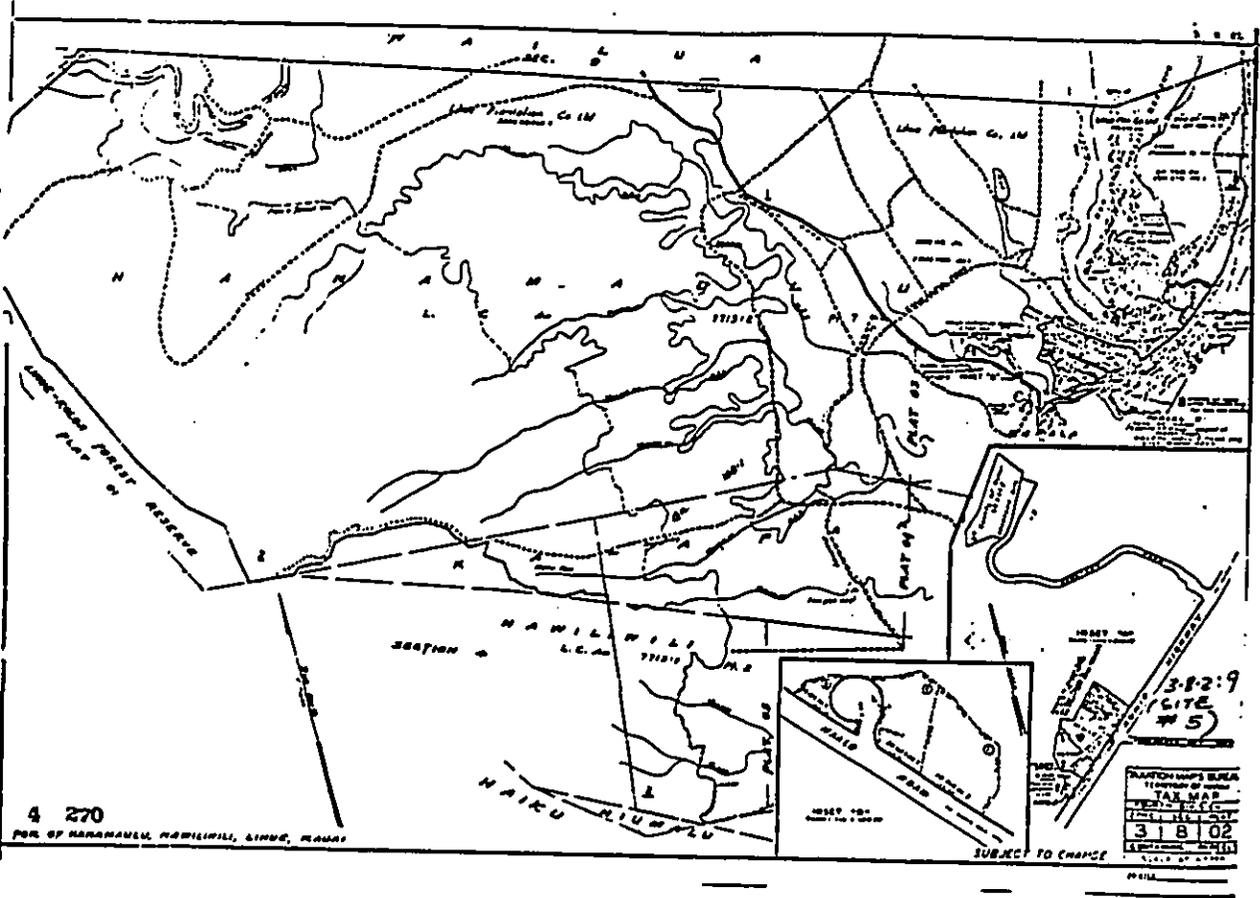
Federal Emergency Management Agency

RECEIVED AS FOLLOWS



TAX MAP  
3 7 103

RECEIVED AS FOLLOWS



4 270

FOR OF HANAMAULU, HAWAII, HONOLULU, HAWAII



STATE OF HAWAII  
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 P. O. BOX 111, HONOLULU, HAWAII 96810

JUL 28 1987

ROBERT S. MADALA  
 DEPUTY DIRECTOR  
 DIVISION OF PUBLIC WORKS  
 LETTER NO. (P)1529.

Mr. Kleuk Cheung  
 Chief, Engineering Division  
 U. S. Army Engineer District, Honolulu  
 Department of the Army  
 Building 230  
 Fort Shafter, Hawaii 96858-5440

Dear Mr. Cheung:  
 Subject: New Hanamaulu-Kaliua Elementary School  
 EIS Public Review Phase

Thank you for your June 2, 1987 comments on the subject project.

Section III.B.7 of the EIS document will be updated to reflect the March 1987 revision of the Flood Insurance Rate Maps (FIRM) for the area which indicates that all five candidate school sites are located within Zone X, an area of minimal flooding.

Very truly yours,

*J. Tomiraga*  
 TEUVANE TOMIRAGA  
 State Public Works Engineer

SM:jk

UNITED STATES  
DEPARTMENT OF  
AGRICULTURE

SOIL  
CONSERVATION  
SERVICE

P. O. BOX 50004  
HONOLULU, HAWAII  
96850

June 8, 1987

Ms. Leticia M. Uyehara  
Office of Environmental Quality  
Control, DOH  
465 S. King St., Room 115  
Honolulu, HI 96813

Dear Ms. Uyehara:

Subject: Draft EIS - Site Selection Report for New Hanamalu-Wallua  
Elementary School, Kauai

We reviewed the subject draft environmental impact statement and have no  
comments to make.

Thank you for the opportunity to review the document.

Sincerely,



ACT:119

RICHARD H. DUNCAN  
State Conservationist

cc: Mr. Steve Hiva  
Div. of Public Works, Planning Br.  
Dept. of Accounting & General Services  
P.O. Box 119  
Honolulu, HI 96810-0119



DEPARTMENT OF THE NAVY  
 COMMANDER  
 NAVAL FACILITIES ENGINEER  
 OFFICE  
 PEARL HARBOR, HAWAII 96813

MAY 29 8 06 AM '97

PERMISSION TO

5090  
 Ser 002B/1111

28 MAY 1907

Director  
 Office of Environmental Quality Control  
 465 South King Street, Room 104  
 Honolulu, Hawaii 96813

Gentlemen:

**SITE SELECTION REPORT AND DRAFT ENVIRONMENTAL IMPACT STATEMENT  
 FOR THE NEW HANAHULU-HAILUA ELEMENTARY SCHOOL**

The Site Selection Report and Draft EIS for the New Hanahulu-Hailua Elementary School has been reviewed and we have no comments to offer. Since we have no further use for the Draft EIS, it is being returned to your office. Thank you for the opportunity to review the Draft.

Sincerely,

T. C. CRANE  
 Captain, CEC, U.S. Navy  
 Facilities Engineer  
 By direction of the Commandant

Enclosure

Copy to:  
 Mr. Steve Miwa  
 Division of Public Works, Planning Branch  
 Department of Accounting and General Services  
 P. O. Box 119  
 Honolulu, HI 96810-0119



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
100 ALA MOANA BOULEVARD  
P. O. BOX 50187  
HONOLULU, HAWAII 96850

MAIL ROOM  
Room 6307  
JUN 16 1987

Director  
Office of Environmental Quality Control  
405 South King Street, Room 104  
Honolulu, Hawaii 96813

Re: Site Selection Report and Draft Environmental Impact  
Statement for the New Hanalei-Mailuu Elementary  
School, Kauai

Dear Sir:

We have reviewed the referenced document and offer the following  
comments for your consideration.

Our 28 August 1986 letter to the Department of Accounting and  
General Services identified a wetland immediately north of the  
proposed Mailuu Homestead Mauka site (Site 1). This wetland is  
not discussed on pages III-3 and III-4 of the Draft Environmental  
Impact Statement. Because of Federal laws regulating certain  
activities in wetlands, potential constraints to the development  
of a school at this site should be discussed.

We appreciate this opportunity to comment.

Sincerely,

Original signed by  
Ernest Kosaka  
Project Leader, Environmental Services  
Pacific Islands Office

cc: Mr. Steve Miwa, DAOS



Save Energy and You Save America!



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

JUL 28 1987

Mr. Ernest Kosaka  
Project Leader  
Office of Environmental Services  
Fish and Wildlife Service  
U. S. Department of the Interior  
P. O. Box 50167  
Honolulu, Hawaii 96850

Dear Mr. Kosaka:

Subject: New Hanalei-Mailuu Elementary School  
EIS Public Review Phase

Thank you for your June 16, 1987 comments on the  
subject project.

The EIS will be revised to include a description of the  
seasonal wetland immediately north of Site 1. Since it is  
approximately 200 feet from the site at its nearest point,  
it should pose no constraints on school development.

Very truly yours,

TEUANE TOMINAGA  
State Public Works Engineer

MY:jk

ROBERT E. HADATA  
DIRECTOR  
GEO. STUBBS  
SENIOR ENGINEER

LETTER NO. (P)1595



JOHN WAINES  
GOVERNOR

SUZANNE D. PETERSON  
CHAIRPERSON, BOARD OF AGRICULTURE  
TADASHI TOJO  
DEPUTY TO THE CHAIRPERSON

State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 So. King Street  
Honolulu, Hawaii 96814-2512

Mailing Address:  
P. O. Box 22159  
Honolulu, Hawaii 96822-0159

August 21, 1986

June 18, 1987

**MEMORANDUM**

To: Mr. Hideo Murakami, State Comptroller  
Department of Accounting and General Services

Subject: Draft Environmental Impact Statement (EIS)  
Site Selection Report  
New Hanamaulu-Wailua Elementary School  
THK: 3-7-08: 20

3-8-02: por. 19  
3-9-06: por. 11  
4-2-02: por. 59  
4-2-03: por. 12

Wailua, Kauai  
Acres: 8.07, 7.36, 11.48, 8.0, 8.0, respectively

The Department of Agriculture has reviewed the subject application and has the following comments to offer.

According to the application, five potentially suitable sites have been selected from which one will be chosen for a new elementary school (grades K to 6). Although some of the sites are on "prime" agricultural lands, as defined by the Agricultural Lands of Importance to the State of Hawaii (ALISH) system, little adverse impact to the agricultural resources of the area are foreseen due to the small acreage involved and the location of the sites adjacent to urban areas. The ALISH information included in the Draft EIS is accurate. It appears from the site selection process that these locations were very carefully chosen to be suitable for the intended use as well as having minimal adverse impacts.

Below is a listing of the soils found at these sites. The Soil Conservation Service Soil Survey identifies the soils as:

Site 1, Puhī silty clay loam (PnB) with 3 to 8 percent slopes and a soil capability classification of IIE. Uses include sugarcane, pineapple, orchard, truck crops and pasture.

Site 2, Puhī silty clay loam (PnA and PnB) with 0 to 8 percent slopes and a soil capability classification of IIE. Uses include sugarcane, pineapple, orchard, truck crops and pasture.

**MEMORANDUM**

To: Director of Environmental Quality Control  
Office of Environmental Quality Control

Subject: Site Selection Report and Draft Environmental Impact Statement (EIS) for the New Hanamaulu-Wailua Elementary School  
Department of Accounting and General Services  
THK: 3-7-03: 06

3-8-02: por. 19  
3-9-06: por. 11  
4-2-02: por. 59  
4-2-03: por. 12

Wailua, Kauai  
Acres: 8.07, 7.36, 11.48, 8.0, 8.0, respectively

The Department of Agriculture had previously reviewed a preliminary copy of the subject document for the Department of Accounting and General Services and found "... little adverse impact to the agricultural resources of the area ..." (see attached copy of our memorandum to Mr. Hideo Murakami, August 21, 1986). Our comments remain applicable as the same sites and conditions are addressed in this Draft EIS.

Thank you for the opportunity to comment.

*Suzanne D. Peterson*

SUZANNE D. PETERSON  
Chairperson, Board of Agriculture

Attachments

cc: /Mr. Steve Miwa, Division of Public Works

Mr. Hideo Murakami  
August 21, 1986  
Page -2-

JOHN WARDEN  
SECRETARY



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 111, HONOLULU, HAWAII 96810

APRIL 6, 1987

LETTER NO. (P) 1595.7

JUL 28 1987

Site 3, Mokuiaia clay loam (Mta) with little slope and Lihue silty clay (LHC) with 8 to 15 percent slopes with soil capability classifications of IIIV and IIIe, respectively. Uses include sugarcane, taro (Mta only), pineapple (LHC only) and pasture.

Sites 4 and 5, Lihue silty clay (Lhb) with 0 to 8 percent slopes with a soil capability classification of Iie. Uses include sugarcane, pineapple, truck crops orchard and wildlife.

(A soil capability classification of I indicates few limitations that restrict soil use, while VIII indicates severe limitations. A letter "e" refers to erosion hazard, "w" is wet or poorly drained areas and "s" is stoniness.)

The parcels have Land Study Bureau Overall Productivity Ratings of:

Site 1 - C78 with good productivity potential for sugarcane, grazing and orchard.

Site 2 - E39 with poor productivity potential.

Site 3 - (1) C41 with good productivity potential for sugarcane, forage, grazing and orchard, (2) D93 with poor productivity potential.

Sites 4 and 5 - B411 with good productivity potential for most crops.

Thank you for the opportunity to comment.

cc: OEQC

Honorable Suzanne D. Peterson  
Chairperson, Board of Agriculture  
Department of Agriculture  
State of Hawaii  
Honolulu, Hawaii

Dear Ms. Peterson:

Subject: New Hanamaulu-Wailue Elementary School  
EIS Public Review Phase

Thank you for your June 18, 1987 comments on the subject project. We appreciate your input for this project.

Very truly yours,  
  
RUSSELL S. NACKER  
State Comptroller

JACK X. SUWA  
Chairman, Board of Agriculture

STATE OF HAWAII  
DEPARTMENT OF DEFENSE  
OFFICE OF THE ADJUTANT GENERAL  
3415 DULOGHO ROAD, HONOLULU, HAWAII 96819-4475

July 20, 1987

HIENO

Director  
Office of Environmental  
Quality Control  
465 South King St., Rm. 104  
Honolulu, Hawaii 96813

Dear Director:

New Hanalei-Valley Elementary School  
Hanalei-Valley, Kauai

Thank you for providing us the opportunity to review the above subject project.

We have no comments to offer at this time regarding this project.

Yours truly,



Jerry M. Motauda  
Major, Hawaii Air  
National Guard  
Contr & Engr Officer

cc: DACS, Div of Public Works ✓

ADMINISTRATIVE  
CONTINUATION



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P. O. BOX 2380  
HONOLULU, HAWAII 96810

June 15, 1987

CHARLES T. TOGUCHI  
SUPERINTENDENT

RECEIVED

JUN 22 2 17 PM '87



JOHN WAINET  
SECRETARY



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 176, HONOLULU, HAWAII 96810

LETTER NO. (P)1619.7

RUSSEL S. NAGATA  
COMPTROLLER

1275 KALANANAKU  
DRIVE, HONOLULU, HI 96813

JUL 29 1987

MEMO TO: Honorable Russel S. Nagata, State Comptroller  
Department of Accounting & General Services

F R O M: Charles T. Toguchi, Superintendent *Charles T. Toguchi*  
Department of Education

SUBJECT: Site Selection Report/ Draft EIS  
New Hanamaulu-Wailua Elementary School

Thank you for the opportunity to review the subject Site Selection Report and Draft EIS dated May 21, 1987.

In reviewing the report, Site 4 seems to best meet the current needs of the Department.

Since the school will initially service students in both the Lihue and Kawaihau districts, it seems appropriate to locate the school close to one of the primary communities being serviced. In meeting long-range needs, there will be a need to monitor the growth in the Lihue/Kapaa area for another elementary school.

We would appreciate the early completion of this study since the affected schools are extremely over-crowded.

CTT:j7

cc S. Akita, Kauai Dist.  
E. Imai, OBS

Honorable Charles T. Toguchi  
Superintendent  
Department of Education  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Toguchi:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Public Review Phase

Thank you for your June 15, 1987 comments on the subject project.

Your preference of the Former Hanamaulu Elementary School Site (Site 4) for the reasons given is noted and will be considered in the final site selection process.

Barring unforeseen circumstances, the first increment of the school should be ready for occupancy in September 1990.

*Russel S. Nagata*  
RUSSEL S. NAGATA  
State Comptroller

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
ELSIE H. WILCOX ELEMENTARY SCHOOL  
4119 HAWAII ST.  
LAWA'I, HAWAII, HAWAII ISLANDS  
JUNE 18, 1987

TO : DIRECTOR  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
FROM: MRS. MARTHA MORITA, PRINCIPAL  
RE : ENVIRONMENTAL IMPACT STATEMENT (EIS)

Thank you for the Site Selection Report and Draft Environmental Impact Statement for The New Hanamaulu-Wailua Elementary School. It is comprehensive and thorough.

We certainly need a new school! Our school population is growing and shortage of classrooms becomes acute each year.

My choice of a new school is the "WAILUA GOLF COURSE SITE". Ownership could be developed by students and parents from both the Hanamaulu area and the Wailua Homesteads area and a unique tradition can evolve.

If the new school is placed at the old Hanamaulu School site, there is the nagging feeling of being an ethnic school.

As far as bus transportation is concerned, there is a very strong possibility of having many parents dropping their children on the way to work at the Wailua Golf Course site. At present there are approximately 325 students being transported by their parents to Wilcox School almost daily.

I have stated my preference but I will be most happy with another new elementary school becoming a reality as soon as possible, regardless of the location.

Enclosed is the Site Selection Report.

cc : MR. STEVE MIWA  
DIVISION OF PUBLIC WORKS, PLANNING BRANCH  
DEPT. OF ACCOUNTING & GENERAL SERVICES  
P.O. BOX 119  
HONOLULU, HI. 96810-0119



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 119, HONOLULU, HAWAII ISLANDS

JUL 20 1987

Mrs. Martha Morita  
Principal  
Elsie H. Wilcox Elementary School  
Department of Education  
State of Hawaii  
4319 Hardy Street  
Lihue, Kauai, Hawaii 96766

Dear Mrs. Morita:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Public Review Phase

Thank you for your June 18, 1987 comments on the subject project. Your preference for the Wailua Golf Course Site (Site 3) and opposition to the Former Hanamaulu Elementary School Site (Site 4) for the reasons noted will be considered in the selection of the school site.

We appreciate your statement of support for the school and will continue to work closely with the Department of Education to open the new school as soon as possible.

Very truly yours,

*Teuane Tomimaga*  
TEUANE TOMINAGA  
State Public Works Engineer

SH:jk  
cc: Wilson Okamoto and Associates, Inc.

RUSSEL S. SHAWA  
COMPTROLLER  
DEN ETIANG  
STATE COMPTROLLER  
LETTER NO. (P) 1582.7

JOHN WILKINSON  
DIRECTOR OF HEALTH



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 2019  
HONOLULU, HAWAII 96810

June 18, 1987

JOHN C. LEVIN, M.D.  
SECTION OF HEALTH

JOHN WILKINSON  
DIRECTOR



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 114, HONOLULU, HAWAII 96810

RUSSELL S. KAGATA  
COMPTROLLER

SEN STATE  
SENATE COMPTROLLER

LETTER NO. (P)1605.7

JUL 28 1987

**MEMORANDUM**

To: Director, Office of Environmental Quality Control  
From: Director of Health  
Subject: Site Selection Report and Draft Environmental Impact Statement for  
New Hanamaulu-Waiiua Elementary School, Hanamaulu-Waiiua, Kauai

Thank you for allowing us to review and comment on the subject document. Our concerns are as follows:

1. The proposed school should connect to the available public sewerage system. Since sewer service is available at sites 3, 4 & 5, the proposed school should be constructed at one of these sites.
2. Should sites 1 or 2 be chosen as the school site, where no sewer system is available, the proposed project shall meet all applicable requirements of Act 282, SLH, 1985 as amended by Act 302, SLH 1986.
3. Due to the close proximity of canefields surrounding sites 3, 4 & 5, there may be problems in the future with dust, odor and noise pollution during normal agricultural activities.
4. Also, site 1 is surrounded by pasture lands. There may be problems in the future with odor and noise pollution.

Due to the general nature of the information submitted, we reserve the right to impose further environmental health restrictions on this project when more detailed information is provided for our review.

*John C. Levin*  
JOHN C. LEVIN, M.D.

cc: Chief Sanitarian, Kauai  
Mr. Steve Miwa, DAGS ✓

Honorable John C. Levin  
Director  
Department of Health  
State of Hawaii  
Honolulu, Hawaii

Dear Dr. Levin:

Subject: New Hanamaulu-Waiiua Elementary School  
EIS Public Review Phase

Thank you for your June 18, 1987 comments on the subject project.

Your concerns on sewerage, dust, odor and noise are considered in the site selection process and are reflected in the ratings for each site.

*Russell S. Kagata*  
RUSSELL S. KAGATA  
State Comptroller

Very truly yours,

JOHN PATY  
CHAIRMAN



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
P. O. BOX 681  
HONOLULU, HAWAII 96809

WILLIAM W. PATY, CHAIRMAN  
BOARD OF LAND AND NATURAL RESOURCES  
HONOLULU, HAWAII

AGRICULTURE DEVELOPMENT  
PROGRAMS  
AQUATIC RESOURCES  
CONSERVATION  
CONSERVATION AFFAIRS  
CONSULTATION AND AFFAIRS  
COUNCILS  
COUNCILS  
LAND MANAGEMENT  
LAND MANAGEMENT  
STAFF  
WATER AND LAND DEVELOPMENT

DOCUMENT NO.: 0493E  
FILE NO.: 87-185

JUN 23 1987

MEMORANDUM

TO: Honorable John C. Lewin, Director  
Office of Environmental Quality Control

FROM: William W. Paty, Chairman  
Board of Land and Natural Resources

SUBJECT: Review of Draft Environmental Impact Statement (EIS)  
New Hanaleiua-Kaliua Elementary School  
Hanaleiua, Lihue, Kauai  
TMK: 4-2-02; por. 59; 4-2-03; por. 12;  
3-9-06; por. 11; 3-7-03; 6; 3-8-02; por. 9

Thank you for the opportunity to review the draft EIS cited above. We offer the following comments:

Aquatic Resources Concerns:

We note all of the five proposed sites are situated close to streams or the sea. Therefore, no matter which site is selected, we recommend precautions be taken during landscaping and construction activities, so that chemicals, soils, and debris do not excessively enter any aquatic environment.

Historic Sites Concerns:

Recent research in Hawaiian archaeology has indicated that significant subsurface archaeological remains exist in locations such as the five proposed for the new elementary school. Therefore, our office recommends that an archaeological reconnaissance survey, including subsurface testing, be conducted by a qualified archaeologist in the project area, once a location is chosen.

Honorable John C. Lewin - 2 - DOC. NO.: 0493E

We would recommend that the archaeological reconnaissance report of the selected site should be sent to our office for review and comment at the earliest possible time. This timeliness would ensure that if significant historic sites are present, any mitigation that might be needed could be completed prior to the start of any construction activity.

Thank you for your consideration of our concerns.

cc: Mr. Steve Miwa  
*William W. Paty*

JUNE WARD  
SECRETARY



RUSSEL S. MAZATA  
COMPTROLLER

DEPT. SECRETARY

LETTER NO. (P) 1604.7

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

JUL 28 1987

Honorable William W. Paty  
Chairman  
Department of Land and  
Natural Resources  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Paty:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Public Review Phase

Thank you for your June 23, 1987 comments on the  
subject project. Our responses to your comments are as  
follows:

Aquatic Resources Concerns

Regardless of the site selected, appropriate control  
measures will be utilized in compliance with State and  
County laws and regulations to prevent chemicals,  
soils, and debris from entering the aquatic environment  
in excessive amounts during landscaping and construc-  
tion activities.

Historic Sites and Concerns

Your recommendations regarding an archaeological  
reconnaissance survey and subsequent measures will be  
implemented after the school site is selected.

Very truly yours,  
  
RUSSEL S. MAZATA  
State Comptroller



DEPARTMENT OF PLANNING  
AND ECONOMIC DEVELOPMENT

KOHI WAHIE  
DIRECTOR  
ROGER A. ULVELLING  
MERRILL L. COMBELL  
SABBARA R. SIAUPOWA  
VICE DIRECTOR

Ref. No. P-6547

June 10, 1987

MEMORANDUM

TO: Director  
Office of Environmental Quality Control

FROM: Roger A. Ulveling

SUBJECT: DEIS for New Imanamalu-Wallua Elementary School, Kauai

We have reviewed the subject draft environmental impact statement (DEIS) and find that the siting of the elementary school has been adequately evaluated.

Thank you for the opportunity to review the subject document.

*Murray C. ...*  
for Director

cc: Mr. Steve Miwa  
Division of Public Works, DACS



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 114, HONOLULU, HAWAII 96810

RUSSEL S. NAKATA  
COMPTROLLER  
1000 EAST WALK  
HONOLULU, HAWAII 96813  
LETTER NO. (P)1593

JOHN WILSON  
DIRECTOR

19.002.11(3)

7268

STP 8.2139

June 29, 1987

JUL 28 1987

Director  
Office of Environmental Quality Control  
465 South King Street, Room 115  
Honolulu, Hawaii 96813

Dear Sir:

New Hanaleiua-Valiua Elementary School

We have reviewed the Draft EIS of the subject project as directed by your notice dated May 21, 1987. We had previously expressed our concerns on this project by a memorandum dated August 28, 1986, a copy of which is included in Chapter XIII, EIS Consultation Phase. In addition to our previous comments, we prefer Site 4 over Site 5 because the access is not directly from Kuhio Highway.

Thank you for this opportunity to review and provide comments on this draft EIS.

Very truly yours,

Edward Y. Hirata  
Director of Transportation

AS:ko

cc: Mr. Steve Miwa, DAGS

HWY-P, STP(dt)

Honorable Edward Y. Hirata  
Director  
Department of Transportation  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Hirata:

Subject: New Hanaleiua-Valiua Elementary School  
EIS Public Review Phase

Thank you for your June 29, 1987 comments on the subject project.

Your preference for the Former Hanaleiua Elementary School Site (Site 4) is noted and will be considered in the final site selection phase.

Very truly yours,

RUSSEL S. NAKATA  
State Comptroller

John Kallay  
Director



STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
405 SOUTH KING STREET, ROOM 104  
HONOLULU, HAWAII 96819

RECEIVED  
MAY 28 1987

May 28, 1987

Mr. Steve Miwa  
Planning Branch  
Division of Public Works  
Department of Accounting and  
General Services  
P.O. Box 119  
Honolulu, Hawaii 96810-0119

Dear Mr. Miwa:

Subject: Draft Environmental Impact Statement for the New  
Hanamaulu-Wailua Elementary School,  
Hanamaulu-Wailua, Kauai

We have no comments on this project at the present time.  
Thank you for providing us the opportunity to review this  
EIS.

Sincerely,

Handwritten signature of John C. Lewin in cursive.

John C. Lewin, M.D.  
Director of Health  
for Director, OHEC



## University of Hawaii at Manoa

Environmental Center  
Crawford 317 • 2550 Campus Road  
Honolulu, Hawaii 96822  
Telephone (HAW) 946-7361

June 22, 1987  
RE: 0466

Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Sir:

Draft Environmental Impact Statement (DEIS)  
Hanamaulu-Wailua Elementary School  
Hanamaulu-Wailua, Kauai

The Environmental Center has conducted a review of the above referenced Draft Environmental Impact Statement, with the assistance of Michael Graves, Anthropology; Jon Matsuoka, Social Work; Marshall Mock, Kauai Community College; Pamela Bahnsen and Jennifer Crummer, Environmental Center.

Because the two elementary schools presently serving the Hanamaulu and Wailua areas on Kauai are exceeding their recommended maximum enrollment levels, it has been decided that a third school, serving both of the towns, should be established. This EIS discusses the potential environmental impacts of five possible elementary school sites to serve this purpose.

### Archaeology

On page V-2, it states, "The acquisition and development of the site must be such that no buildings or sites designated as historic and deserving of preservation by the State Historic Preservation Office will be destroyed." While the candidate sites may contain no identified historic sites, there have been no archaeological surveys in the area. It is well established that significant subsurface archaeological remains exist in locations such as those proposed for the new elementary school. Furthermore, the intent of state laws, which require environmental reviews of undertakings such as this, is to determine the existence of archaeological and historical sites on candidate areas prior to site selection. We feel a full archaeological site survey, including subsurface testing, should be carried out for each site prior to site selection as is called for by the declared considerations for historic sites and the State law. As presently drafted, the DEIS does not present a complete assessment of all potential environmental impacts to archaeological remains and is therefore not an adequate or acceptable document.

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 08-14-2013 BY 60322 UCBAW/STP

AN EQUAL OPPORTUNITY EMPLOYER

Office of Environmental  
Quality Control

-2-

June 22, 1987

### Demographic Setbacks

A problem not fully addressed in the DEIS is that of busing. Since the school is serving two communities over a large area, it can be considered a major concern. For any of the sites, under consideration, it is estimated that at least 50 percent of the students will have to be bused.

Impilled but not directly discussed was the fact that, should the school be located in Hanamaulu, buses from Wailua would be travelling through heavy traffic in both directions. In this situation, children from Wailua would have to sit idle while traveling through heavy traffic, wasting potential study time, etc. This could constitute an unfair advantage to students from Hanamaulu. This is not to say students from Hanamaulu would not have a similar problem in the reversed condition. However, it seems the majority of traffic would be traveling in the opposite direction of buses coming and going from a Northern location. We feel the children's welfare in this situation is not fully addressed. An estimate of how much time the children would spend in commuting by bus would be appropriate information to include in this document.

### Noise

We note that the Hanamaulu sites are relatively close to the Lihue Airport. Though the site is probably far enough away to not receive the intense noise generated by fixed-wing aircraft landings and departures, we feel potential noise impacts from helicopters leaving Lihue Airport for Wailua and other tourist attractions should be discussed. Will the increasing number of commercial helicopters affect any of the sites substantially?

### Traffic

Regarding the long-term impacts of traffic, would not a traffic signal, as is suggested for site #3, be considered a long term impact on traffic?

### Safety

An issue which should receive significantly greater attention and weight in the site selection decision is that of safety. The Wailua Golf Course site is an exceedingly dangerous access entrance from the highway and represents a significant safety hazard. The Wailua Homestead site is well away from major traffic arteries, is close to a park and basically presents a much safer environment.

### Alternative

The alternative of expanding the two existing schools rather than development of a third should be considered.

Office of Environmental  
Quality Control

-3-

June 22, 1987

We thank you for the opportunity to comment on this document and look forward to your consideration and response to our comments.

Yours truly,

*John T. Harrison*  
John T. Harrison, Ph.D.  
Environmental Coordinator

cc: Steve Miwa, DAGS v  
L. Stephen Lau  
Michael Graves  
Jon Matsuoka  
Marshall Mock  
Jacquelin Miller  
Pamela Behnsen  
Jennifer Crummer



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS

P. O. BOX 114, HONOLULU, HAWAII 96822

RUSSEL S. HIGASHI  
COMPTROLLER

SEN EITANI

DEPUTY COMPTROLLER

LETTER NO. (P)1884

OCT 23 1987

Dr. John T. Harrison  
Environmental Coordinator  
University of Hawaii at Manoa  
Environmental Center  
Crawford 317  
2550 Campus Road  
Honolulu, Hawaii 96822

Dear Dr. Harrison:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Public Review Phase

Thank you for your June 22, 1987 comments on the subject project. Our responses to your comments are as follows:

1. Archaeology

Since we did not feel that "...a full archaeological site survey, including subsurface testing, should be carried out for each site prior to site selection...", we have discussed the matter with the Department of Land and Natural Resources (DLNR). Consequently, it was agreed that an archaeological reconnaissance survey should be conducted immediately after a school site is selected. If historic sites are discovered, mitigation measures will be discussed with DLNR and completed prior to commencing any construction activity.

2. Demographic Setbacks

We acknowledge your concerns that students from Wailua would "waste" time on buses traveling through heavy traffic, if the new school is located in Hanamaulu. However, we would like to point out that all of the 5 alternative school sites will reduce the "wasted" time for these same students because all of the proposed sites are closer to Wailua than the present school in Lihue. Based on this, we do not agree that the selection of a site in Hanamaulu is a "demographic setback."

3. Noise

The estimated noise levels at the school sites are based on findings of the on-going FAR Part 150 Noise Compatibility Study for Lihue Airport which include helicopter as well as fixed-wing operations. Preliminary findings indicate that increasing commercial helicopter operations will increase noise levels along flight tracks. However, even with these increases, noise levels will still be below the acceptable threshold of 55 Ldn at all of the school sites.

4. Traffic

A traffic signal for Site 3 could be considered a long-term impact on traffic.

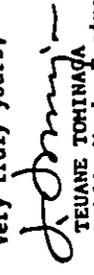
5. Safety

The pedestrian safety criteria addresses the need for adequate and safe paved walkways/shoulders as well as the possible need for traffic signals and/or pedestrian overpasses. Traffic hazards are also discussed in Section VII.B.3.b. of the EIS. Public safety and health, and surrounding land uses which are discussed in Section VII.B.4 and VII.B.5, respectively, also address related long-term safety concerns.

6. Alternative

As stated in the EIS, expansion of the existing Wilcox and Kapaa Elementary Schools was considered and deemed undesirable. The cost of expanding the existing schools to accommodate the projected growth would be similar to the cost of constructing a new elementary school. However, the disadvantages of enrollments substantially exceeding 1,000 and insufficient land area to accommodate required new facilities were undesirable tradeoffs.

Very truly yours,



TEUANE TOMINAGA  
State Public Works Engineer



**University of Hawaii at Manoa**

Water Resources Research Center  
Hohokahi Hall, 203 • 25th Hole Street  
Honolulu, Hawaii 96822

4 June 1987

Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Sir:

**Subject:** Draft Environmental Impact Statement and Site Selection  
Report, New Hanamulu-Wailua Elementary School, Kaula,  
Hawaii, May 1987

We have reviewed the subject DEIS and have no comment to offer.  
Thank you for the opportunity to comment. This material was reviewed by  
WRC personnel.

Sincerely,

*Edwin T. Murebayashi*  
Edwin T. Murebayashi  
EIS Coordinator

ETM:jm

cc: S. Miwa, DAGS

.....

**DEPARTMENT OF WATER**

COUNTY OF KAUAI  
P. O. BOX 1706  
LIHUE, HAWAII 96766-5706



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

ROSELE B. HARRIS  
DIRECTOR  
EIS DIVISION  
DEPT. OF PUBLIC WORKS  
LETTER NO. (E) 1588.7

June 5, 1987

JUN 21 1987

Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, HI 96913

Re: Proposed Hanamalu-Wailua Elementary School EIS Review

Any actual subdivision or development of these areas will be dependent on the adequacy at the source, storage and transmission facilities existing at that time.

At the present time, the following comments are applicable:

Sites 1, 2, 3

The existing source facilities for the Mafua/Kapaa areas are at capacity. However, we are in the process of developing additional source facilities for this area. The storage and transmission facilities for Sites 1 and 2 are not adequate to deliver the required fire flows to the proposed school.

Sites 4 and 5

The existing facilities are adequate.

*Raymond H. Sato*

Raymond H. Sato  
Manager and Chief Engineer

KF:rm  
cc: DAGS

Mr. Raymond H. Sato  
Manager and Chief Engineer  
Department of Water  
County of Kauai  
P. O. Box 1706  
Lihue, Hawaii 96766-5706

Dear Mr. Sato:

Subject: New Hanamalu-Wailua Elementary School  
EIS Public Review Phase

Thank you for your June 5, 1987 comments on the subject project.

The EIS document has been revised in accordance with your comments on the availability of water for the various sites.

We appreciate your input for this project.

Very truly yours,

*Teuane Tohinaga*

TEUANE TOHINAGA  
State Public Works Engineer

SH:jk

TONY T. KUNIMURA  
MAYOR



AVERY H. YOUNG  
PLANNING DIRECTOR  
TOM H. SHIGEMOTO  
DEPUTY PLANNING DIRECTOR  
TELEPHONE (808) 246-2818

COUNTY OF KAUAI  
PLANNING DEPARTMENT  
420 RICE STREET  
LAILOE, KAUAI, HAWAII 96741

June 23, 1987

Director  
Office of Environmental Quality Control  
465 South King Street, Room 10A  
Honolulu, Hawaii 96813

Subject: New Hanalei-Haleiwa Elementary School  
Site Selection Report and Draft Environmental Impact Statement

This Department previously sent comments regarding a school site selection of which we did not find included in this report. It stated that Grove Farm Company was willing to dedicate land for a school site, located between Kukui Grove Shopping Center and Puhi, and that such location should be given consideration in your review.

Our critical concern, however, relates to traffic. The Hanalei-Haleiwa corridor has experienced increased congestion over the past four years, and the Hanalei-Haleiwa bypass road is expected to alleviate some of this in the near future. As you know, schools are primary traffic generators and relocating Hanaleiwa kids to Hanaleiwa will only increase traffic flow towards Lihue in the morning during peak traffic hours. Since the Hanalei-Haleiwa area is most congested, it would appear to be very prudent planning to place the school in a location where it would take traffic out of or away from a congested area. We urge you to seriously consider this concern.

You may think that the bypass road would alleviate the traffic problem, however, all it will do is accommodate more vehicles; it will not reduce or minimize the increase in traffic that would result if the school were removed from a congested area.

Director  
Office of Environmental Quality Control  
Page 2  
June 23, 1987

Based on the subject report, we further offer the following comments:

1. Sites 1 and 2 are not considered desirable due to the substandard Kuamoo and Oloheua Roadways accessing the sites, relative to roadway alignments, pavement widths, right-of-way widths, etc. A school use in Wailua Homesteads would not be appropriate unless major improvements are provided to the roadways.
2. Sites 4 and 5 are not considered desirable since they both abut the Kuhio Highway. Even though the report makes continued reference to the Ahukini bypass as a major benefit in addressing traffic concerns, we do not concur. Should actual highway volumes be reduced as projected by your dated traffic study, we do not believe that an additional "choke" point should be established just because the traffic volumes may be reduced. A traffic generator such as a school use should not be located adjacent to a major County roadway unless alternate roadways are available—in these instances, none exist.
3. Section IV-B-3 "County Zoning" should make specific reference to the applicable Standards and Criteria contained in the County's Comprehensive Zoning Ordinance No. 164, as amended, relative to Use Permits, Special Permits, Class IV Zoning Permits and Zoning Amendments.
4. While we can appreciate the necessity to establish rigid criteria in which to evaluate a project, we do not concur with Section VI-2-a, "Community Criteria - Government." Flexibility as to types of ways is provided in the C20 through the Use and Special Permit procedures, and should be a consideration in the "Good-Fair-Poor" hierarchy.

Thank you for the opportunity to comment.

AVERY H. YOUNG  
Planning Director

cc: Mr. Steve Niwa  
Dept. of Accounting & General Services

COPY



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 1714, HONOLULU, HAWAII 96814

PRINCE S. NAKAYA  
COMMISSIONER

SEN STANLEY  
SPORTS COMMISSIONER

LETTER NO. (P)1883.7

OCT 23 1987

Mr. Tom Shigemoto  
Page 2

Ltr. No. (P)1883.7

Mr. Tom Shigemoto  
Director  
Planning Department  
County of Kauai  
4280 Rice Street  
Lihue, Kauai, Hawaii 96766

Dear Mr. Shigemoto:

Subject: New Hanamaulu-Wailua Elementary School  
EIS Public Review Phase

Thank you for the June 23, 1987 comments on the subject project. Our responses to the comments are as follows:

A. EIS Consultation Phase Comments

The comments of August 8, 1986 were not included in the Site Selection Report and Draft EIS document because they addressed a site that was outside of the service area for the subject school. They will be appended to the EIS document along with our September 3, 1986 response and the September 26, 1986 response by the Department of Education.

B. Congested Area

We share the concerns regarding the traffic impacts of developing a new school. However, we do not feel the new school will impact traffic negatively in the Hanamaulu area. Since students from Wailua are presently being bussed through Hanamaulu to Lihue, a school site in Hanamaulu should reduce this traffic between Hanamaulu and Lihue.

C. Additional Comments

1. The objections to Sites 1 and 2 for the reasons given are noted and will be considered in the selection of a final site.

2. The concern regarding long-term traffic impacts at Sites 4 and 5 is noted and will be considered in the site selection process. The EIS assertion that traffic along Kuhio Highway will be reduced as a result of the Hanamaulu-Ahukini Cutoff Road was derived from the State Department of Transportation report Hanamaulu-Ahukini Cutoff Road (1979).

Alternate roadways are available for access to Site 4. Please note that the comments may be applicable to traffic originating from the Wailua area. However, approximately 50 percent of the enrollment will be coming from the Hanamaulu area.

3. Section IV.B.3 of the EIS will be revised to include a discussion of applicable Standards and Criteria contained in the County's Comprehensive Zoning Ordinance No. 164 relative to Use Permits, Special Permits, Class IV Zoning Permits and Zoning Amendments.

4. The County Zoning Designation criterion in Section VI.A.2.a. of the EIS provides a relative rating of sites with respect to approvals or requirements associated with County Zoning designations. A "good" rating would be assigned to a site which would not require any zoning-related approvals. A "fair" or "poor" rating would indicate the need for increasingly complex approvals or requirements. For example, a site requiring a Use Permit, without a change in the underlying zoning designation, would be assigned a "fair" rating while one requiring a zoning change would be rated "poor".

We appreciate the input for this project.

Very truly yours,

TEUANE TOMHINAGA  
State Public Works Engineer

SM:jk

TONY T. KUNIMURA  
MAYOR



AVERY H. YOUNG  
PLANNING DIRECTOR  
TOM H. SHIGEMOTO  
DEPUTY PLANNING DIRECTOR  
TELEPHONE 808-241-2910

COUNTY OF KAUAI  
PLANNING DEPARTMENT  
4700 RICE STREET  
LIHUE, KAUAI, HAWAII 96814

August 8, 1986

Mr. Gary Okamoto  
Wilson, Okamoto & Associates  
1150 So. King Street  
Honolulu, Hawaii 96814

Subject: General Plan Amendment GPA-86-2

RECEIVED  
AUG 12 1986

WILSON OKAMOTO & ASSOCIATES

Enclosed for your information is a copy of a proposed ordinance relating to additional urban expansion of the Lihue and Puhi project by Grove Farm Properties, Inc. We believe that condition #2 is pertinent to the Department of Education's efforts in establishing a new elementary school site in the Lihue District.

As consultant to the Department of Education on this matter, we will appreciate any comments and information relating to the project. If you have any questions, please contact Bryan Hamacalay of my staff.

AVERY H. YOUNG  
Planning Director

Enclosure

ORDINANCE NO. \_\_\_\_\_

BILL NO. 1080

A BILL FOR AN ORDINANCE AMENDING THE GENERAL PLAN DESIGNATION  
OF TAX MAP KEYS: 3-3-03:POR. 1 AND 3-3-02:POR. 1,  
LIHUE AND PUHI, KAUAI, FROM "AGRICULTURE, OPEN AND URBAN  
RESIDENTIAL" TO "URBAN MIXED USE"  
(Grove Farm Properties, Inc.)

BE IT ORDAINED BY THE COUNCIL OF THE COUNTY OF KAUAI, STATE OF  
HAWAII:

SECTION 1. The designations in the General Plan of the  
County of Kauai for those certain areas in Lihue and Puhi,  
identified as TMKs: 3-3-03:Por. 1 and 3-3-02:Por. 1, as  
delineated on the map attached hereto and made part hereof, is  
hereby amended to "Urban Mixed Use" from their existing  
designations of "Agriculture, Open and Urban Residential", as  
recommended by the Planning Commission subject to the following  
conditions:

1. Approval of Parcels 17 thru 29 does not construe  
approval of the golf course concept identified  
hereon. In the event that the golf course is not  
needed in the future, the general planned areas  
shall be reduced by a total of 172 acres. Said  
area shall be resolved and approved by the  
Planning Department.
2. As represented by the applicant, the applicant  
shall provide the availability of a 10-acre school  
site, if necessary, to accommodate an elementary  
school site for the State Department of Education.  
Specific requirements can be resolved as more  
detailed plans become available.
3. The applicant shall formulate a sewage master  
development plan and traffic study for submittal  
to the Planning Department and Public Works  
Department for review and approval prior to zoning  
amendments for the project.

SECTION 2. The Planning Commission is directed to note  
this amendment on the official General Plan filed with the  
Commission. All General Plan provisions applicable to "Urban  
Mixed Use" designation shall apply to the areas described herein.

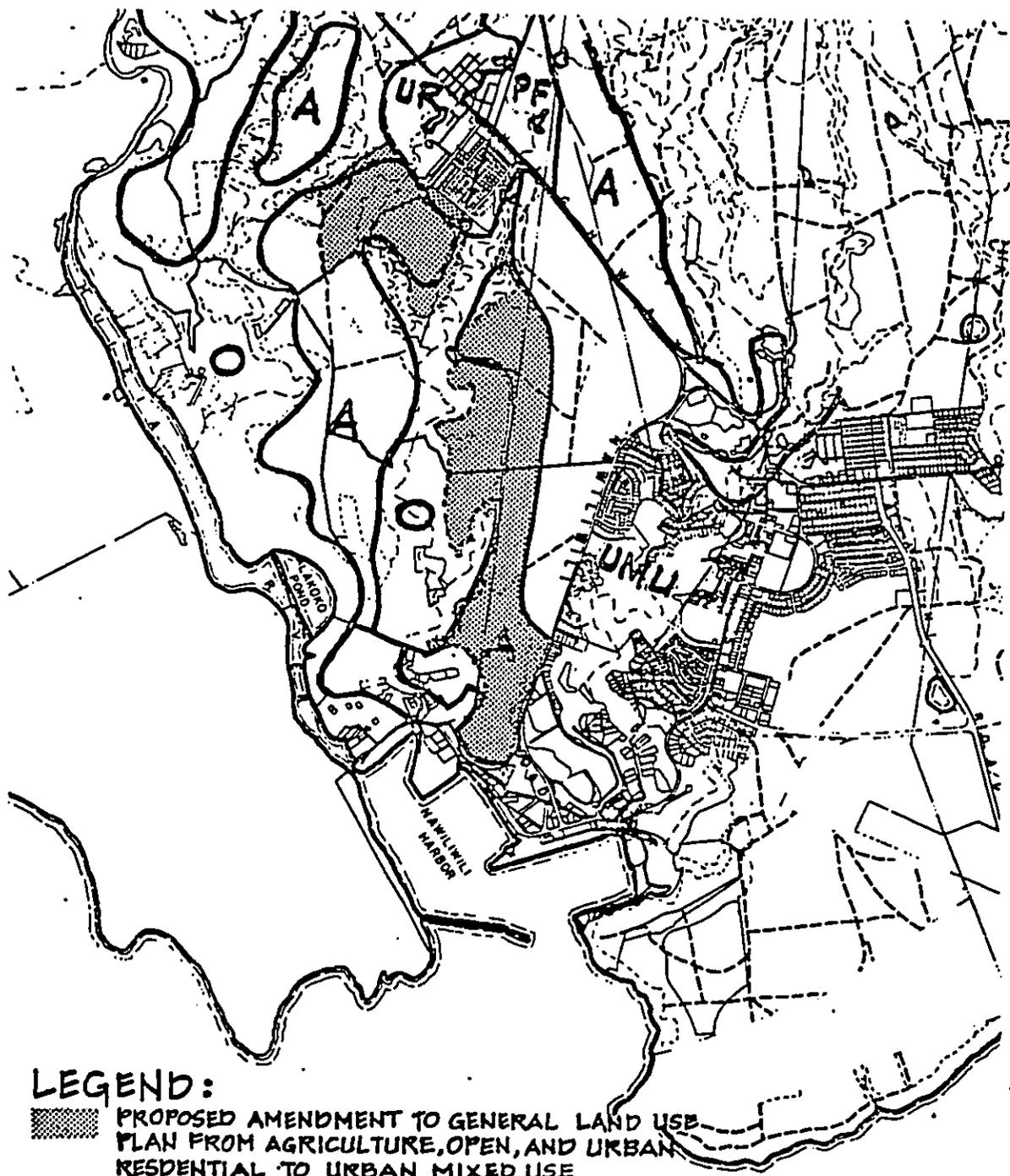
SECTION 3. This ordinance shall take effect upon its  
approval.

INTRODUCED BY: \_\_\_\_\_

MAXINE CORREA

DATE OF INTRODUCTION:

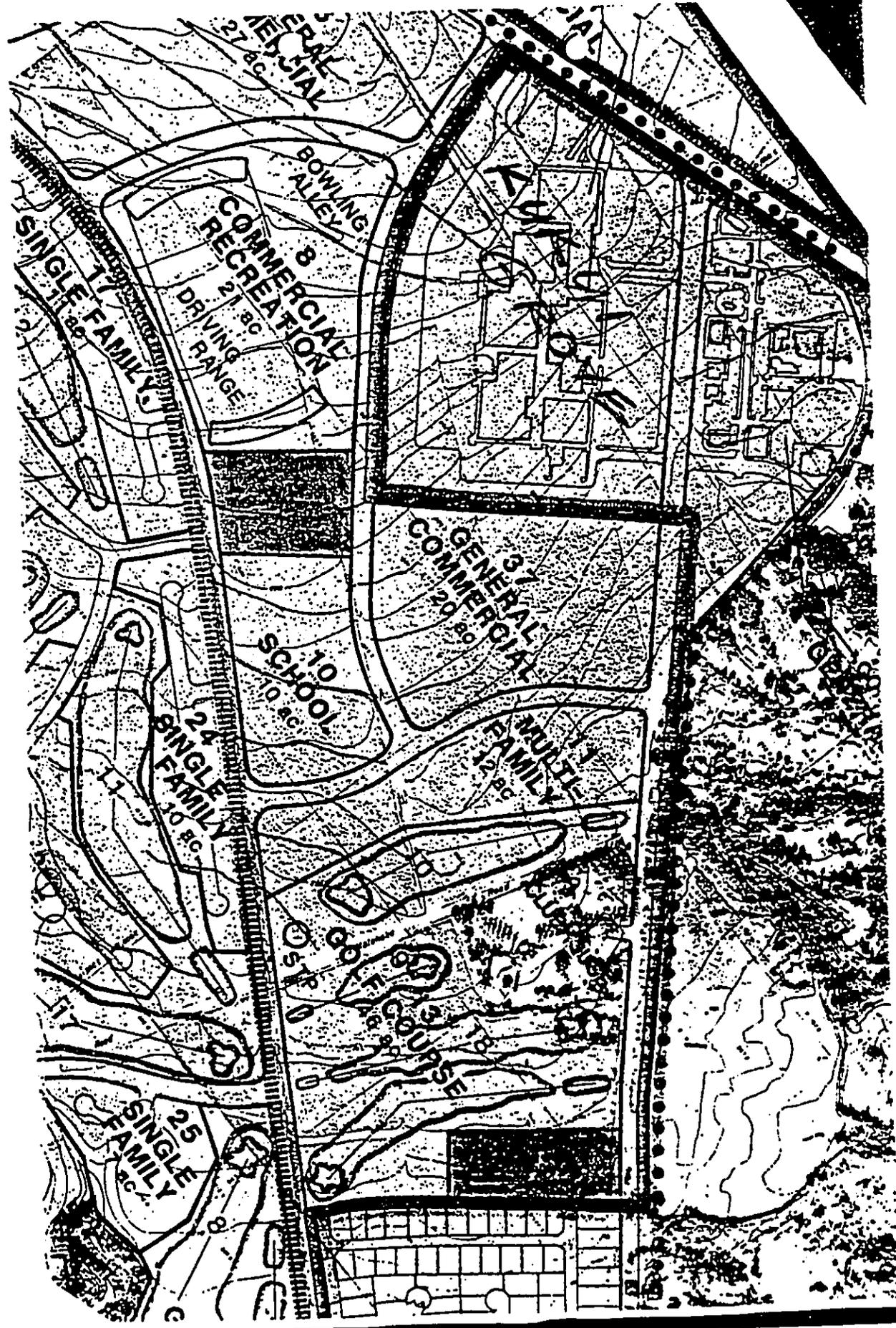
Lihue, Kauai, Hawaii



LOCATION SHOWING  
 PROPOSED AMENDMENT TO GENERAL LAND USE PLAN  
 FROM  
 AGRICULTURE, OPEN, AND URBAN RESIDENTIAL  
 TO URBAN MIXED USE

T.M.K.: 3-3-03: POR. 1 AND 3-3-02: POR. 1  
 LIHUE AND PUHI, KAUAI

GPA-86-2



Project is not to be  
submitted



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P. O. BOX 2009  
HONOLULU, HAWAII 96820  
September 26, 1986

MICHAEL R. HARTMAN  
DIRECTOR

RECEIVED

Oct 2 12 55 PM '86  
DIV. OF PUBLIC WORKS  
DECS

OFFICE OF THE SUPERINTENDENT

UNIVERSITY OF HAWAII  
INITIAL FOR FILE  
1. [Signature] Approval  
2. [Signature] File  
3. [Signature] Review  
4. [Signature] Comments  
5. [Signature] Invest. &  
6. [Signature] Rep.

Mr. Avery H. Youn, Director  
County of Kauai  
Planning Department  
4280 Rice Street  
Lihue, Hawaii 96766

Dear Mr. Youn:

SUBJECT: General Plan Amendment GPA-86-2

We concur with your recommendation (Condition #2) that a 10-acre school site be made part of the proposed ordinance relating to additional urban expansion of the Lihue and Puhii project by Grove Farm Properties, Inc.

Our enrollment projection for the Puhii area, in general, indicates that the elementary level enrollment will surpass the facility accommodations at Wilcox Elementary School within a few years, despite the approval of a new school between Lihue and Kapaa.

We will continue to monitor Grove Farm's developments in this area. Please keep our department informed of any developmental changes in this general area.

Sincerely,

[Signature]  
Francis M. Hatanaka  
Superintendent

FMH:J1 (MR1)

cc OBS  
M. Nakashima, Kauai Dist.  
V. Tomnaga, DAGS

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

RECEIVED

SEP 8 11 34 AM '86  
DIV. OF PUBLIC WORKS  
DECS

September 3, 1986

Mr. Avery Youn, Director  
Planning Department  
County of Kauai  
4280 Rice Street  
Lihue, Kauai, HI 96766

Subject: Your Letter of August 8, 1986 Concerning General Plan Amendment GPA-86-2

Dear Mr. Youn:

Thank you for providing us the opportunity of reviewing the subject application relative to school site requirements.

Our scope of work for the Hanamaulu-Wailua Elementary School Site Selection Study is limited to the region between Hanamaulu Town and Wailua Homesteads. In this regard, we are not able to provide substantive input relative to additional educational facilities requirements, beyond those presently recognized for the Hanamaulu-Wailua area.

For this reason, we have forwarded a copy of your letter to the State Department of Accounting and General Services for their review and consideration.

Should you have any questions, please do not hesitate to call.

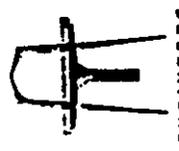
Sincerely,

[Signature]  
Michael Munkitoyo, Project Manager

MM/ry

cc: Mr. Steve Mira, DAGS

WILSON  
OKAMOTO  
& ASSOCIATES



ENGINEERS  
ARCHITECTS  
PLANNERS  
1110 KUHIO AVE. SUITE 1110  
HONOLULU, HAWAII 96813  
PHONE: (808) 531-3333  
FAX: (808) 531-3333  
TELETYPE: (808) 531-3333

**CITIZENS UTILITIES COMPANY**



RECEIVED

JUN 17 5 11 PM '87

P O BOX 278 - ELEIHE, KAUAI, HAWAII 96705

May 29, 1987

In reply refer to:  
File #86-6-302RR

Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, HI 96813

SUBJECT: EIS FOR NEW HANAMAUU - PAIIUA ELEMENTARY SCHOOL.

Gentlemen:

We have reviewed the subject plan and have no further comments.  
Thank you for the opportunity to review the EIS.

Very truly yours,

*[Signature]*  
Miyamoto  
Manager, Engineering

AHM:af

CC: Mr. Steve Miwa  
Div. of Public Works, Planning Branch

**KAUAI ELECTRIC**

ELECTRIC, TELEPHONE, WATER AND GAS SERVICE TO CUSTOMERS IN OVER 400 COMMUNITIES IN MANY STATES ACROSS THE NATION  
A DIVISION OF CITIZENS UTILITIES COMPANY

69 Aleo Street  
Kapaa HI 96746  
June 18, 1987

Mr. Steve Miwa  
Division of Public Works, Planning Branch  
Department of Accounting and General Services  
P.O. Box 119  
Honolulu HI 96810-0119

Dear Mr. Steve Miwa,

I am taking the opportunity to comment on the Site Selection Report and Draft Environmental Impact Statement for the New Hanamaulu-Wailua Elementary School on Kauai.

It has been a year since the public hearing was conducted at Wilcox School regarding this site selection. I asked then of the authorities from the planners and state about the time frame in regards to when the final selection will be made and who makes the final decision. I was told there that the state of Hawaii governor would make the selection around December 1986. I wrote my initial comments to the Impact Statement in August 1986 and received a reply in March 1987 from Mr. Teuane Tomihaga. It is now June 1987 and I received the Impact Statement now with the addition of the Consultation Phase comments and responses. My letter from Mr. Earl Matsukawa states the Impact Statement has now been filed with the Office of Environmental Quality Control.

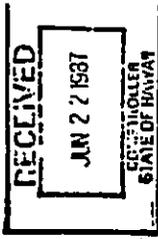
Can you now give some indication of the time frame when the governor will make the final site selection?

I am a teacher (primary gifted/talented program) at Kapaa Elementary School. In reference to page II-1 (Project Need and Description) of the Impact Statement, it states that "of the 2,278 K-12 enrollment total, 1,109 are elementary school students in grades K-6. The current capacity of the elementary school is 1,137."

As of this date, June 18, 1987, there are 1,342 students enrolled for September 1987. There will inevitably be an increase when school opens due to Westin Kauai Hotel opening and Kapaa having the housing facilities for employees and other newcomers. We are talking of 1,137 capacity with a reality of 1,342+ students in 1987. The longer it takes to choose a site, the higher our elementary increases beyond our capacity.

The 2,278+ K-12 student enrollment at Kapaa share one cafeteria. Can you imagine feeding 1,342+ K-6 students in 45 minutes (10:50 - 11:35 AM) so the intermediate and high school can be accommodated at 12:00 PM? We do. It is horrendous. It is unforgivable what we do to these children (two of my sons are among them) to herd 1,342+ children to eat in one building (two of adult-height tables to accommodate the high school. We also must share one library building, with our K-6 librarian (no aide) serving the 1,342+ students. We will have 11 kindergarten classes in 1987. Two will be sharing a room.

page 2



I am also a teacher at Kapaa Elementary School with no classroom in September. There are four other teachers in my position, without rooms. Our SLEP teacher is assigned a storage room even our head custodian disapproves for student usage. The District Office refuses to allow two rooms they use for offices at our school. A teacher workroom has been used for years by our special education classes until we now refuse to allow the district to have us give our workroom to provide for student classroom.

The need for facilities is now. It is 1987 and the site selection must be made immediately.

I speculate from the comments by the DAGS engineer, Mr. Teuane Tomihaga, that the former Hanamaulu Elementary School site is already determined to be chosen. I have been told by teachers at school and from the public that I should know the former Hanamaulu School site was already determined and why am I spending my time and efforts in recommending the Wailua Golf Course site. I see that now from reading the reports and responses.

I accept that and suggest we act now to immediately start the next phase of planning facilities for that site. Why did we have to go through a year of this consultation phase and what phase are we in now? Hanamaulu School had already been approved years ago and served its community. It is incredible that we must lose time when that site has passed approval previously for all the choice reasons that it was built. My concern is to act faster to alleviate the overcrowded conditions at Wilcox and Kapaa Elementary School. It is our children who face these conditions as we wait for each phase to pass.

As much as I recommend a Wailua site to be chosen to serve the growing needs of the Kapaa district, I urge the department to select the Hanamaulu School site. And, we must at the same time look to the future and select one of the Wailua sites because it is inevitable that Kapaa in 2000 AD will surely require another elementary school.

I am quite certain that at this rate of site selection process, the new school may not open in 1990. It has taken over ten years since the Kapaa Elementary School master plan was initiated and we are still in the building placement planning stage.

My youngest son will be in the third grade in 1990 and would be bused to the Hanamaulu School. However, I am not discouraged at the thought of having him attend school out of the community where we chose to live because it may not have to happen. I do see the future of the horrendous traffic congestion arising with the opening of the school in Hanamaulu. But then, only the eastside drivers know what that is like.

Thank you for your consideration.

Yours truly,

*Cheryl M. Inouye*

Cheryl M. Inouye

cc: Russel S. Magata, Comptroller  
Director, Office of Environmental Quality Control  
John Waihee, Honorable Governor of Hawaii

3- State P.W. Eng.  
P.W. Secty  
4-2- State Serv.  
4-2- Eng. Maint. B.  
Director  
Inspect. Br.  
Contracts  
Facial Off.  
Plan. Off.  
Pit Audit

(P)1556.7  
1-Steve [Signature]

Ltr. No. (P)1556.7

Ms. Cherylyn M. Inouye  
Page 2

Gov. Referral No. 87-391-16

33 9 1987

Ms. Cherylyn M. Inouye  
69 Aleo Street  
Kapaa, Hawaii 96746

Dear Ms. Inouye:

Subject: New Hanamaulu-Wailua Elementary School  
Site Selection Report and EIS

In response to your June 18, 1987 letter regarding the Site Selection Report and Draft Environmental Impact Statement (EIS), we provide the following:

1. Schedule. The statement made at the June 17, 1986 meeting at Wilcox School was that the site selection and EIS process would take at least six months. We are presently in the "Public Review" phase and the schedule which includes the first increment, is as follows:
  - 08/05/87 - Publish Final Site Selection Report and EIS.
  - 09/01/87 - Obtain acceptance of the EIS.
  - 10/01/87 - Obtain selection of a school site and begin the master plan.
  - 03/01/88 - Begin first increment design.
  - 03/01/89 - Begin bidding process.
  - 06/01/89 - Begin construction.
  - 09/01/90 - Complete first increment.

2. Space Shortage. The DOE is aware of the need for additional facilities and is working closely with the DAGS to complete the first increment of the new school by September 1990. To help assure

this, the Department of Education has secured appropriations for the land acquisition, master-planning and first increment design of the subject school. An appropriation for construction of the first increment will be required in 1988. Barring unforeseen circumstances, we should be able to meet this schedule.

3. Site Recommendation. Please be assured that a site recommendation will be made only after the Site Selection Report and EIS is published and accepted by the Governor as required by the statutes. This assures that all of the information available has been presented and evaluated before the recommendation is made. Your preference for a Wailua site is noted and will be considered in the selection of a final site.

Thank you for your interest in this project.

Very truly yours,

[Signature]

TEUANE TOMINAGA  
State Public Works Engineer

SH:jk Governor John Waihee  
cc: Mr. Charles Toguchi

XV. WILSON OKAMOTO & ASSOCIATES, INC.  
LIST OF PREPARERS OF THE EIS DOCUMENT

XV. WILSON OKAMOTO & ASSOCIATES, INC. LIST OF PREPARERS OF THE EIS DOCUMENT

Earl Matsukawa: Director, Planning Department  
University of Hawaii, MURP, 1983, Land Use and Environmental Planning  
Western Washington University, 1975, B.S., Environmental Planning  
Area of Expertise for Project: Project Management, Land Use and  
Environmental Planning

Michael Munekiyo: Director, Planning Department (up to March, 1987)  
University of Hawaii, MURP, 1976, Land Use and Environmental Planning  
Colorado State University, BSCE, 1974, Civil Engineering  
Area of Expertise for Project: Project Management, Land Use and  
Environmental Planning, Civil Engineering

Nami Hamaguchi: Planner and Civil Engineer  
University of Hawaii, BSCE, 1984, Civil Engineering  
Engineer-in-Training Phase of Hawaii Board regular examination for  
registration, Part I - Fundamentals of Engineering, 1987  
Area of Expertise for Project: Land Use and Environmental Planning,  
Civil Engineering

Daniel Guerrero: Planner  
University of Hawaii, MURP, 1987, Land Use and Environmental Planning  
University of Hawaii, B.A., 1984, Communications/Sociology  
Area of Expertise for Project: Land Use and Environmental Planning

Denis Shiu: Director, Civil Engineering Department  
University of Hawaii, BSCE, 1965, Civil Engineering  
Registered Professional Engineer, 1969, Hawaii, Civil Engineering  
Area of Expertise for Project: Civil Engineering

Eric Nishimoto: Civil Engineer  
University of Hawaii, BSCE, 1984, Civil Engineering  
Engineer-in-Training Phase of Hawaii Board regular examination for  
registration, Part I - Fundamentals of Engineering, 1984  
Area of Expertise for Project: Civil Engineering

Malcolm Ching: Graphic Designer  
Leeward Community College, A.S., 1986, Graphic Arts  
Leeward Community College, Certificate in Graphic Arts, 1986  
Area of Expertise for Project: Maps, Figures, and Production

REFERENCES

#### REFERENCES

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APPENDIX A  
CANDIDATE SITE EVALUATIONS AND RESULTS

APPENDIX A

CANDIDATE SITE EVALUATIONS AND RESULTS

This technical appendix document lists results of the candidate site evaluations relative to school site and community criteria, and cost considerations. Descriptions of the criteria are contained in Chapter VI of the EIS for the New Hanamaulu-Wailua Elementary School.

A. School Site and Community Criteria Results

SITE 1: WAILUA HOMESTEAD MAUKA SITE

School Site Criteria

1. Environmental Characteristics

	<u>Rating</u>
a. <u>Highway Noise</u> . . . . . Distance from highway/truck route: 1,900 feet.	Good
b. <u>Aircraft Noise</u> . . . . . Outside the 55 Ldn Noise Contour.	Good
c. <u>Industrial and Agricultural Nuisances</u> . . . Degree of effect: The site is free from industrial and agricultural nuisances.	Good
d. <u>Rainfall</u> . . . . . Average Annual Rainfall: 54.4 inches.	Poor
e. <u>Foundation</u> . . . . . Soil Character Code: I4L.	Good
f. <u>Soil</u> . . . . . Description: The soils are non-rocky with well drained surfaces. The underlying material, at a depth of more than 15 feet, is consolidated lava.	Good
g. <u>Natural Beauty</u> . . . . . Existing trees, plants, rock formations: Pasture. Potential for beautification: Yes. Crossed by overhead lines: No.	Good

RATING TOTALS

Good ..... 6  
Fair ..... 0  
Poor ..... 1

2. Roads and Utilities

- a. Adequacy of Roads ..... Poor  
The site is served by Opaekaa Road which has a right-of-way width of less than 44 feet.
- b. Adequacy of Water Supply ..... Poor  
The site is inadequately served and will require extensive off-site development (including source development).
- c. Adequacy of Sewer Service ..... Poor  
Wastewater treatment works will be required in accordance with Act 282, SLH 1985, as amended by Act 302, SLH 1986.
- d. Adequacy of Drainage Facilities ..... Fair  
Connection to off-site drainage facilities will be required.
- e. Adequacy of Power and Communications ..... Good  
The site is proximate to adequate existing lines.

RATING TOTALS

Good ..... 1  
Fair ..... 1  
Poor ..... 3

3. Accessibility

- a. Pedestrian Access ..... Poor  
Number of sides access is available: 1.
- b. Pedestrian Safety ..... Fair  
Existing conditions: There are no paved walkways or shoulders along Opaekaa Road.
- c. Automobile Access ..... Fair  
Existing conditions: The access road, Opaekaa Road, runs along one long side of the school grounds.

- d. Bus Service . . . . . Poor  
Service Availability: There is no public bus service on Kauai.
- e. Traffic Flow . . . . . Fair  
Existing conditions: The site is adjacent to Opaekaa Road, a street which serves primarily residential uses.

RATING TOTALS

Good . . . . . 0  
Fair . . . . . 3  
Poor . . . . . 2

Community Criteria

1. Government

- a. State Land Use District Map Designation . . . . . Poor  
District Designation: Agriculture.
- b. County General Plan Designation . . . . . Poor  
General Plan Designation: Rural Residential and Agriculture (the majority of the site is Agriculture).
- c. County Zoning Designation . . . . . Poor  
Zoning Designation: Agriculture. A zoning change is required.
- d. Agricultural Land Classification . . . . . Fair  
Productivity Rating: C.

RATING TOTALS

Good . . . . . 0  
Fair . . . . . 1  
Poor . . . . . 3

2. Community Effects

- a. Interference with Institutions . . . . . Good  
Distance from hospitals, rest homes, etc.: 4.1 miles (Mahelona Samuel Memorial Hospital, Kapaa).
- b. Existing Land Use . . . . . Good  
Present Use: Pasture.

- c. Proximity to Commerical Centers . . . . . Good  
 Distance from commercial centers:  
 3 miles.
- d. Aesthetic Value . . . . . Poor  
 The site is an aesthetic asset to the  
 community: Yes.  
 Site development will obstruct scenic  
 vistas: Yes.
- e. Location . . . . . Poor  
 Percentage of students in walking  
 distance: 40 percent.

RATING TOTALS

Good ..... 3  
 Fair ..... 0  
 Poor ..... 2

SITE 2: WAILUA HOMESTEAD MAKAI SITE

School Site Criteria

1. Environmental Characteristics

	<u>Rating</u>
a. <u>Highway Noise</u> . . . . . Distance from highway/truck route: 20 feet (adjacent to Kuamoo Road).	Poor
b. <u>Aircraft Noise</u> . . . . . Outside the 55 Ldn Noise Contour.	Good
c. <u>Industrial and Agricultural Nuisances</u> . . . . . Degree of effect: The site is free of industrial and agricultural nuisances.	Good
d. <u>Rainfall</u> . . . . . Average Annual Rainfall: 54.4 inches.	Poor
e. <u>Foundation</u> . . . . . Soil Character Code: I4L.	Good
f. <u>Soil</u> . . . . . Description: The soils are non-rocky with well-drained surfaces. The underlying material, at a depth of more than 15 feet, is consolidated lava.	Good
g. <u>Natural Beauty</u> . . . . . Existing trees, plants, rock formations: Pasture. Potential for beautification: Yes. Crossed by overhead lines: No.	Good

RATING TOTALS

Good . . . . .	5
Fair . . . . .	0
Poor . . . . .	2

2. Roads and Utilities

a. <u>Adequacy of Road</u> . . . . . The site is served by Kuamoo Road which has a right-of-way width of less than 44 feet.	Poor
--	------

- b. Adequacy of Water Supply . . . . . Poor  
The site is inadequately served and will require extensive off-site development (including source development).
- c. Adequacy of Sewer Service . . . . . Poor  
Wastewater treatment works will be required in accordance with Act 282, SLH 1985, as amended by Act 302, SLH 1986.
- d. Adequacy of Drainage Facilities . . . . . Fair  
Connection to off-site drainage facilities will be required.
- e. Adequacy of Power and Communications . . . . . Good  
The site is proximate to adequate existing lines.

RATING TOTALS

Good . . . . . 1  
Fair . . . . . 1  
Poor . . . . . 3

3. Accessibility

- a. Pedestrian Access . . . . . Poor  
Number of sides access is available: 1.
- b. Pedestrian Safety . . . . . Poor  
Existing conditions: No paved walkways or shoulders exist along Kuamoo Road. The site may require traffic signals in addition to walkway and shoulder improvements.
- c. Automobile Access . . . . . Poor  
Existing conditions: Access to the site is via Kuamoo Road which runs along one short side of the school lot.
- d. Bus Service . . . . . Poor  
Service Availability: There is no public bus service on Kauai.
- e. Traffic Flow . . . . . Fair  
Existing conditions: The site is adjacent to Kuamoo Road, a secondary through street.

RATING TOTALS

Good ..... 0  
Fair ..... 1  
Poor ..... 4

Community Criteria

1. Government

- a. State Land Use District Map Designation . . . . . Poor  
District Designation: Majority  
Agriculture and portion Urban.
- b. County General Plan Designation . . . . . Good  
School use consistent with General Plan  
Designation: Urban Residential.
- c. County Zoning Designation . . . . . Poor  
Zoning Designation: Residential (R-4) and  
Agriculture. A zoning change is required.
- d. Agricultural Land Classification . . . . . Good  
Productivity Rating: E.

RATING TOTALS

Good ..... 2  
Fair ..... 0  
Poor ..... 2

2. Community Effects

- a. Interference with Institutions . . . . . Good  
Distance from hospitals, rest homes, etc.:  
4.0 miles (Mahelona Samuel Memorial  
Hospital, Kapaa).
- b. Existing Land Use . . . . . Good  
Present Use: Vacant, pasture.
- c. Proximity to Commercial Centers . . . . . Good  
Distance from commercial centers:  
2.8 miles.
- d. Aesthetic Value . . . . . Poor  
The site is an aesthetic asset to the  
community: Yes.

Site development will obstruct scenic  
vistas: Yes.

e. Location . . . . . Poor  
Percentage of students in walking  
distance: 35 percent.

RATING TOTALS

Good ..... 3  
Fair ..... 0  
Poor ..... 2

SITE 3: WAILUA GOLF COURSE SITE

School Site Criteria

1. Environmental Characteristics

	<u>Rating</u>
a. <u>Highway Noise</u> . . . . . Distance from highway/truck route: 700 feet.	Fair
b. <u>Aircraft Noise</u> . . . . . Outside the 55 Ldn Noise Contour.	Good
c. <u>Industrial and Agricultural Nuisances</u> . . Degree of effect: Within limits of tolerance.	Fair
d. <u>Rainfall</u> . . . . . Average Annual Rainfall: 54.4 inches.	Poor
e. <u>Foundation</u> . . . . . Soil Character Code: I3L, VI3W, VI4C.	Fair
f. <u>Soil</u> . . . . . Description: The majority of the site is composed of coral, non-rocky soil with a well drained surface and a depth of 11 to 15 feet.	Fair
g. <u>Natural Beauty</u> . . . . . Existing trees, plants, rock formations: Insignificant. Potential for beautification: Yes. Crossed by overhead lines: No.	Good

RATING TOTALS

Good . . . . .	2
Fair . . . . .	4
Poor . . . . .	1

2. Roads and Utilities

a. <u>Adequacy of Road</u> . . . . .	Good
The site is served by Leho Drive roadway which has a right-of-way width of 70 feet.	

- b. Adequacy of Water Supply . . . . . Poor  
The site is inadequately served and will require extensive off-site development (including source development).
- c. Adequacy of Sewer Service . . . . . Good  
Off-site sewer connections to the County sewer system, proximate to the site, will be required.
- d. Adequacy of Drainage Facilities . . . . . Fair  
Connection to off-site drainage facilities will be required.
- e. Adequacy of Power and Communications . . . Fair  
Off-site improvements consisting of overhead lines and cables will be required.

RATING TOTALS

Good . . . . . 2  
Fair . . . . . 2  
Poor . . . . . 1

3. Accessibility

- a. Pedestrian Access . . . . . Fair  
Number of sides access is available: 2.
- b. Pedestrian Safety . . . . . Poor  
Existing conditions: There are no paved walkways or shoulders along Leho Drive. The site may require traffic signals in addition to walkway and shoulder improvements.
- c. Automobile Access . . . . . Good  
Existing conditions: Access to the site from Kuhio Highway is available via Leho Drive and Nehe Road. These roads run along one long side and one short side of the school lot.
- d. Bus Service . . . . . Poor  
Service Availability: There is no public bus service available on Kauai.
- e. Traffic Flow . . . . . Good  
Existing conditions: The site is proximate to Kuhio Highway.

RATING TOTALS

Good ..... 2  
Fair ..... 1  
Poor ..... 2

Community Criteria

1. Government

- a. State Land Use District Map Designation . Good  
District Designation: Urban.
- b. County General Plan Designation . . . . . Good  
General Plan Designation: Public Facility.
- c. County Zoning Designation . . . . . Poor  
Zoning Designation: Open. A zoning  
change is required.
- d. Agricultural Land Classification . . . . . Fair  
Productivity Rating: C, D.

RATING TOTALS

Good ..... 2  
Fair ..... 1  
Poor ..... 1

2. Community Effects

- a. Interference with Institutions . . . . . Good  
Distance from hospitals, rest homes, etc.:  
4.0 miles (Mahelona Samuel Memorial  
Hospital, Kapaa).
- b. Existing Land Use . . . . . Good  
Present Use: Vacant.
- c. Proximity to Commercial Centers . . . . . Good  
Distance from commercial centers:  
1.3 miles.
- d. Aesthetic Value . . . . . Good  
The site is an aesthetic asset to the  
community: No.  
  
Site development will obstruct scenic  
vistas: No.

e. Location . . . . . Poor  
Percentage of students in walking  
distance: less than 50 percent.

RATING TOTALS

Good	4
Fair	0
Poor	1

SITE 4: FORMER HANAMAULU ELEMENTARY SCHOOL SITE

School Site Criteria

1. Environmental Characteristics

	<u>Rating</u>
a. <u>Highway Noise</u> Distance from highway/truck route: 500 feet. . . . .	Fair
b. <u>Aircraft Noise</u> . . . . . Outside the 55 Ldn Noise Contour.	Good
c. <u>Industrial and Agricultural Nuisances</u> . . . Degree of effect: The existing residential zoning designation of land north of the site will free the site from industrial and agricultural nuisance.	Good
d. <u>Rainfall</u> . . . . . Average Annual Rainfall: 54.4 inches.	Poor
e. <u>Foundation</u> . . . . . Soil Character Code: Not coded. The site is labelled "U" for Urban use.	Good
f. <u>Soil</u> . . . . . Description: The soils are non-rocky with well drained surfaces. The underlying material, at a depth of more than 5 feet, is soft weathered rock.	Fair
g. <u>Natural Beauty</u> . . . . . Existing trees, plants, rock formations: Yes. Potential for beautification: Yes. Crossed by overhead lines: No.	Good

RATING TOTALS

Good	4
Fair	2
Poor	1

2. Roads and Utilities

- a. Adequacy of Road . . . . . Fair  
The site is served by Kuhio Highway and Hanamaulu Road with rights-of-way of 95 and 40 feet respectively. On the basis that both accessways could be used, the corresponding "good" and "poor" ratings were considered to represent an overall "fair" rating for this criteria.
- b. Adequacy of Water Supply . . . . . Fair  
Off-site development consisting of transmission improvements will be required.
- c. Adequacy of Sewer Service . . . . . Good  
Off-site connection to the County sewer system, proximate to the site, will be required.
- d. Adequacy of Drainage Facilities . . . . . Fair  
Connection to off-site drainage facilities will be required.
- e. Adequacy of Power and Communications . . . . . Good  
The site is proximate to adequate existing lines.

RATING TOTALS

Good . . . . . 2  
Fair . . . . . 3  
Poor . . . . . 0

3. Accessibility

- a. Pedestrian Access . . . . . Fair  
Number of sides access is available: 2. (Access from the adjacent park is available, however, it is not included in the total number of sides.)
- b. Pedestrian Safety . . . . . Poor  
Existing conditions: Paved shoulders exist along Kuhio Highway. However, no paved walkways or shoulders exist along Hanamaulu Road. The site may require traffic signals in addition to walkway and shoulder improvements.

- c. Automobile Access . . . . . Good  
Existing conditions: Access to the site is available via Kuhio Highway and Hanamaulu Road which run along one long side and one short side of the school lot respectively.
- d. Bus Service . . . . . Poor  
Service Availability: There is no public bus service on Kauai.
- e. Traffic Flow . . . . . Good  
Existing conditions: The site is adjacent to Kuhio Highway.

RATING TOTALS

Good . . . . . 2  
Fair . . . . . 1  
Poor . . . . . 2

Community Criteria

1. Government

- a. State Land Use District Map Designation . . . . . Good  
District Designation: Urban.
- b. County General Plan Designation . . . . . Good  
School use consistent with General Plan Designation: Urban Residential.
- c. County Zoning Designation . . . . . Poor  
Zoning Designation: Open, R-6/ST-P (Special Treatment-Public). A zoning change is required.
- d. Agricultural Land Classification . . . . . Poor  
Productivity Rating: A portion of the site is not classified for Agricultural productivity. About 3.4 acres of the 6.3 acre site is currently in cane production and is within the class B productivity rating.

RATING TOTALS

Good . . . . . 2  
Fair . . . . . 0  
Poor . . . . . 2

2. Community Effects

- a. Interference with Institutions . . . . . Good  
Distance from hospitals, rest homes, etc.:  
1.2 miles (Wilcox Memorial Hospital,  
Lihue).
- b. Existing Land Use . . . . . Fair  
Present Use: Day activity center for  
developmentally disabled  
adults, a headstart program  
facility for youngsters,  
and a facility for other  
community-related uses.
- c. Proximity to Commercial Centers . . . . . Good  
Distance from commercial centers:  
1.6 miles.
- d. Aesthetic Value . . . . . Good  
The site is an aesthetic asset to the  
community: No.  
  
Site development will obstruct scenic  
vistas: No.
- e. Location . . . . . Fair  
Percentage of students in walking  
distance: 50 percent.

RATING TOTALS

Good . . . . . 3  
Fair . . . . . 2  
Poor . . . . . 0

SITE 5: LIHUE PLANTATION YARD SITE

School Site Criteria

1. Environmental Characteristics

	<u>Rating</u>
a. <u>Highway Noise</u> . . . . . Distance from highway/truck route: 100 feet.	Poor
b. <u>Aircraft Noise</u> . . . . . Outside the 55 Ldn Contour.	Good
c. <u>Industrial and Agricultural Nuisances</u> . . . . . Degree of effect: The site is subjected to frequent agriculturally-related dust, noise, and odor.	Poor
d. <u>Rainfall</u> . . . . . Average Annual Rainfall: 54.4 inches.	Poor
e. <u>Foundation</u> . . . . . Soil Character Code: Not coded. The site is labelled "U" for Urban use.	Good
f. <u>Soil</u> . . . . . Description: The soils are non-rocky with well drained surfaces. The underlying material, at a depth of more than 5 feet, is soft weathered rock.	Fair
g. <u>Natural Beauty</u> . . . . . Existing trees, plants, rock formations: Sugarcane. Potential for beautification: Yes. Crossed by overhead lines: No.	Good

RATING TOTALS

Good	3
Fair	1
Poor	3

2. Roads and Utilities

a. <u>Adequacy of Road</u> . . . . . The site is served by Kuhio Highway which has a 95 foot right-of-way width.	Good
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- b. Adequacy of Water Supply . . . . . Good  
The site has adequate water pressure and capacity available to meet ultimate school needs.
- c. Adequacy of Sewer Service . . . . . Good  
Off-site connection to the County sewer system, proximate to the site, will be required.
- d. Adequacy of Drainage Facilities . . . . . Poor  
Off-site and on-site drainage improvements will be required.
- e. Adequacy of Power and Communications . . . . . Fair  
Off-site improvements consisting of overhead lines will be required.

RATING TOTALS

Good . . . . . 3  
Fair . . . . . 1  
Poor . . . . . 1

3. Accessibility

- a. Pedestrian Access . . . . . Poor  
Number of sides access is available: 1.
- b. Pedestrian Safety . . . . . Good  
Existing conditions: Paved shoulders exist along Kuhio Highway. The intersection of Laukona Street and Kuhio Highway is signalized.
- c. Automobile Access . . . . . Fair  
Existing conditions: Access to the site is available via Kuhio Highway, which runs along one long side of the school lot.
- d. Bus Service . . . . . Poor  
Service Availability: There is no public bus service on Kauai.
- e. Traffic Flow . . . . . Good  
Existing conditions: The site is adjacent to Kuhio Highway.

RATING TOTALS

Good ..... 2  
Fair ..... 1  
Poor ..... 2

Community Criteria

1. Government

- a. State Land Use District Map Designation . . . . . Poor  
District Designation: Agriculture and Urban (the majority of the site is Agriculture).
- b. County General Plan Designation . . . . . Poor  
General Plan Designation: Urban Residential and Agriculture (the majority of the site is Agriculture).
- c. County Zoning Designation . . . . . Poor  
Zoning Designation: Open, Agriculture and Industrial (I-G). A zoning change is required.
- d. Agricultural Land Classification . . . . . Poor  
Productivity Rating: B.

RATING TOTALS

Good ..... 0  
Fair ..... 0  
Poor ..... 4

2. Community Effects

- a. Interference with Institutions . . . . . Good  
Distance from hospitals, rest homes, etc.: 0.87 miles (Wilcox Memorial Hospital, Lihue).
- b. Existing Land Use . . . . . Good  
Present Use: Sugarcane.
- c. Proximity to Commercial Centers . . . . . Good  
Distance from commercial centers: 1.7 miles.
- d. Aesthetic Value . . . . . Good  
The site is an aesthetic asset to the community: No.

Site development will obstruct scenic  
vistas: No.

e. Location . . . . . Fair  
Percentage of students in walking  
distance: 50 percent.

RATING TOTALS

Good . . . . . 4  
Fair . . . . . 1  
Poor . . . . . 0

B. Cost Considerations

1. Site Acquisition Costs

As a basis for further comparing the relative merits of each candidate site, cost estimates were developed for site acquisition, off-site development, on-site development and the busing subsidy.

Site acquisition costs are estimated to determine both actual costs for acquiring privately owned land and opportunity costs for foregone uses of State owned land. In either case, the cost estimate is based on the County's assessed property tax valuation. The intent is not to attempt an accurate market assessment of land values, but to estimate magnitudes of order and relative valuations among the sites. For privately owned lands, the assessed valuation is regarded as the amount the State must expend to acquire a school site. For lands already owned by the State, the assessed valuation is, hypothetically, what the State could accrue should it put the land to its most economically profitable use, as opposed to using it for a school.

The Wailua Homestead Makai Site (Site 2) is partially situated on urban lands adjacent to existing single-family residential subdivisions. The parcel, which is under ownership of Hale Kauai, Ltd. is assessed at \$9,320 per acre. Thus, for the 8 acre site, the acquisition cost is estimated at \$74,560. See Table A-1.

The Wailua Homestead Mauka Site (Site 1), also under private ownership, is assessed at \$197 per acre. The significant difference between the assessed value of this site and the Wailua Homestead Makai Site (Site 2) is its agricultural designation. Generally, agricultural land is assessed at a much lower rate than urban lands. Since Site 1 is contiguous to urban lands, however, and a school would be an urban use, it appears reasonable to expect that the site would be acquired at a higher use value. Therefore, as an approximation of this higher valuation, the assessed valuation of Site 2 was used. At a per acre cost of \$9,320, the total land acquisition cost for the 8 acres of Site 1 is also estimated at \$74,560.

The Wailua Golf Course Site (Site 3) is owned by the State and assessed at a special lower scale by the County. The site is vacant and zoned open. Although an attempt to locate comparably valued lands in the vicinity was made, none could be found. Therefore, this parcel was assigned a per acre value of \$18,000, which represents an approximate average value of urban lands in the Hanamaulu and Wailua Homestead areas. At the rate of \$18,000 per acre, the 7.37 acre Wailua Golf Course Site (Site 3) would be valued at approximately \$132,660.

TABLE A-1  
SITE ACQUISITION COST ESTIMATES

SITE	TMK OF PARCEL OCCUPIED	VALUE PER ACRE	SITE ACREAGE	SITE VALUE/COST (Rounded to nearest 1,000)
Site 1: Wailua Homestead Mauka Site	4-2-02:59	\$ 9,320	8.0	\$ 75,000
Site 2: Wailua Homestead Makai Site	4-2-03:12	\$ 9,320	8.0	\$ 75,000
Site 3: Wailua Golf Course Site	3-9-06:11	\$ 18,000*	7.37	\$133,000
Site 4: Former Hanamaulu Elementary School Site	3-7-03:20 (canefield)	\$ 27,042	6.33	\$171,000
	3-7-03:6 (Former school site)	\$ 27,042**		
Site 5: Lihue Plantation Yard Site	3-8-02:1	\$ 1,676	7.69	\$ 13,000

\*Based on approximate average per acre value of sites 2 and 4

\*\*Based on value of parcel 3-7-03:20

The Former Hanamaulu Elementary School Site (Site 4) includes the parcel occupied by the former elementary school and a portion of a parcel planted in sugar cane. The entire site is designated for urban use and, consequently, is valued at a much higher rate than agricultural land.

The portion of the site planted in sugar cane is owned by the Lihue Plantation Company and is zoned Residential/Special Treatment since it was reserved for a potential elementary school when the area was rezoned from agriculture to residential use. The assessed value of this land is \$27,042 per acre. Thus, the 3.1 acre portion of the candidate site lying in this parcel is valued at \$83,830. A 0.33-acre triangular shaped area situated between Kuhio Highway and Peter Rayno Sr. Park would also have to be acquired. This remnant parcel would be otherwise unusable since development of the school would isolate it from other developable lands. The land is also owned by Lihue Plantation Company and would incur a cost of \$8,924 based on the same per acre value applied to the adjacent lands.

The portion of the site occupied by the former Hanamaulu Elementary School is owned by the State. Consequently, the County assesses this parcel at a lower rate than privately owned lands. The parcels flanking the candidate site on the east and west are also government owned and do not provide comparable land values. To estimate the value of the former school site, the same per acre value of the canefield portion was applied. This value reflects the County's assessment based on reserving the canefield area for a school. Since the proposed use of the former school site would also be for a school, this valuation was deemed comparable. At this rate, the 2.9 acre portion of the site occupied by the former Hanamaulu Elementary School would be valued at \$78,044. The entire site would thus be valued at approximately \$171,000. It should be emphasized, however, that only the portion of land owned by the Lihue Plantation Company, which includes the triangular shaped portion, would have to be acquired. The valuation of the portion occupied by the former Hanamaulu Elementary School represents an opportunity cost.

Currently in cane production, the Lihue Plantation Yard Site (Site 5), which is also owned by the Lihue Plantation Company, is valued at \$1,676 per acre; or, \$13,000 for the 7.69 acre site.

## 2. Off-Site Improvement Costs

Off-site improvement costs were estimated for each site with respect to roadway, grading, drainage, and landscaping requirements, as well as for utility needs such as sewerage, water, electrical power/communications, and gas. See Table A-2. None of the potential sites required off-site improvements

**TABLE A-2**

**OFF-SITE IMPROVEMENT COSTS**

<b>Improvements</b>	<b>Wailua Homestead Mauka Site (1)</b>	<b>Wailua Homestead Makai Site (2)</b>	<b>Wailua Golf Course Site (3)</b>	<b>Former Hanamaulu Elem Sch. Site (4)</b>	<b>Lihue Plantation Yard Site (5)</b>
Grading	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Roadway	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Water	\$950,000	\$950,000	\$570,000	\$ 70,000	\$ 0
Drainage	\$ 0	\$ 0	\$ 0	\$ 0	\$ 50,000
Sewer	\$ 0	\$ 0	\$ 19,000	\$ 6,000	\$ 15,000
Elec./Tel.	\$ 0	\$ 0	\$ 12,000	\$ 0	\$ 3,000
Gas	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Landscaping	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>TOTAL</b>	<b>\$950,000</b>	<b>\$950,000</b>	<b>\$601,000</b>	<b>\$ 76,000</b>	<b>\$ 68,000</b>

for roadways, grading, landscaping or gas. All sites can be directly accessed from existing County or State roadways. Grading and landscaping were regarded as unnecessary since slope and natural landscape features offered by the surrounding terrain were judged to be adequate. The provision of gas lines was also considered unnecessary as none of the sites are near existing gas lines. Instead gas would be trucked in and stored in tanks.

The Lihue Plantation Yard Site is the only potential site that would require off-site drainage improvements. Runoff from all of the other sites could be accommodated by existing conveyance methods, either discharging directly into cane fields, streams, or existing drainage facilities. Drainage facility requirements for the Lihue Plantation Yard Site are estimated to include a 1,700 foot ditch and two culvert crossings totalling approximately \$50,000.

All sites will require development of off-site water improvements, except the Lihue Plantation Yard Site (Site 5). The improvements for the Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) would be the most expensive at \$950,000 each. A new source well, appurtenant pumps, housing, controls and transmission lines would be required. Moreover, additional storage capacity will be required if a new school is developed in the Wailua Homestead area. For the Wailua Golf Course Site (Site 3), a new source would be needed at an estimated cost of \$570,000. As an alternative to developing a new well, these sites could be serviced by connecting the existing Lihue water system with the

Wailua water system at the approximate cost of \$550,000. Though less expensive, it is anticipated that the Lihue water system will achieve its capacity by 1990, which would make such a connection unfeasible. The Former Hanamaulu Elementary School Site (Site 4) will require off-site water transmission improvements at an estimated cost of \$70,000.

Off-site sewerage improvement costs vary for each site based on the availability of municipal sewer lines. There is no County sewerage system in the Wailua Homestead area; all homes are served by cesspools. Pursuant to Act 282, SLH 1985 as amended by Act 302, SLH 1986, Department of Health Rules and Regulations require that wastewater treatment works be used instead of individual wastewater systems. Wastewater treatment works will consist of on-site sewerage facilities. Sewer costs are thus reflected as an on-site cost rather than an off-site cost.

The Wailua Golf Course Site (Site 3) would require 300 lineal feet of 8-inch sewer line at a total cost of approximately \$19,000. The Lihue Plantation Yard Site (Site 5) would require 200 lineal feet of 8-inch sewer line for a total cost of \$15,000. Off-site costs for the Former Hanamaulu Elementary School Site (Site 4) are estimated on the order of \$6,000.

Off-site connections to electrical power/telephone systems from the Wailua Golf Course Site (Site 3) would include the installation of overhead lines and cables for a total of approximately \$12,000. For the Lihue Plantation Yard Site (Site 5), the installation of approximately 200 lineal feet of overhead lines will total \$3,000. No costs for off-site connections would be incurred for the Wailua Homestead Mauka and Makai Sites (Sites 1 and 2), and Former Hanamaulu Elementary School Site (Site 4) as the lines are already available for hookup.

### 3. On-Site Improvement Costs

On-site improvement costs were estimated for each site with respect to roadways, parking, grading, drainage, and landscaping, as well as various utilities such as sewerage, water, electrical power/communications, and gas. See Table A-3.

Based on a typical layout plan, roadway, water, electrical/telephone, gas line, and landscape improvements are assumed to be the same for all sites. Roadway improvements are estimated to cost \$92,000 for driveway, drop-off and parking areas. Water system improvements, including the installation of meters, 12-inch and 2-inch pipes, and fire hydrants are expected to total approximately \$61,000. The installation of approximately

**TABLE A-3**

**ON-SITE IMPROVEMENT COSTS**

<b>Improvements</b>	<b>Wailua Homestead Mauka Site (1)</b>	<b>Wailua Homestead Makai Site (2)</b>	<b>Wailua Golf Course Site (3)</b>	<b>Former Hanamaulu Elem Sch. Site (4)</b>	<b>Lihue Plantation Yard Site (5)</b>
Grading	\$ 207,000	\$ 207,000	\$ 207,000	\$ 207,000	\$207,000
Roadway	\$ 92,000	\$ 92,000	\$ 92,000	\$ 92,000	\$ 92,000
Water	\$ 61,000	\$ 61,000	\$ 61,000	\$ 61,000	\$ 61,000
Drainage	\$ 104,000	\$ 104,000	\$ 146,000	\$ 111,000	\$104,000
Sewer	\$ 218,000	\$ 218,000	\$ 68,000	\$ 118,000	\$165,000
Elec./Tel.	\$ 68,000	\$ 68,000	\$ 68,000	\$ 68,000	\$ 68,000
Gas	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000
Landscaping	\$ 184,000	\$ 184,000	\$ 184,000	\$ 184,000	\$184,000
<b>TOTAL</b>	<b>\$ 947,000</b>	<b>\$ 947,000</b>	<b>\$ 839,000</b>	<b>\$ 854,000</b>	<b>\$894,000</b>

1,350 lineal feet of lines and cables for the electrical and telephone system is estimated at \$68,000. The gas system, including 540 feet of lines and a 2,000 gallon tank would be approximately \$13,000. On-site landscaping improvements amounting to \$184,000 assumes the need for topsoil, grassing and an irrigation system for half of the landscaped area. Grading costs for all sites are identical at \$207,000.

Drainage improvement costs vary among the candidate sites. The costliest improvements would be required at the Wailua Golf Course Site (Site 3) where extensions of existing culverts as well as 1,840 feet of drainage lines with appurtenant catch basins would cost approximately \$146,000. Drainage costs for the other four sites vary according to the length of drainage pipe required to transport runoff to appropriate discharge sites. Costs for the Wailua Homestead Mauka and Makai Sites (Sites 1 and 2) and the Lihue Plantation Yard Site (Site 5) are estimated to be approximately \$104,000 each. On-site drainage cost for the Former Hanamaulu Elementary School Site (Site 4) is estimated at about \$111,000.

Sewerage cost for the Wailua Golf Course Site (Site 3) is estimated at \$68,000 for an estimated 1,130 feet of sewer line. The Former Hanamaulu School Site (Site 4) sewerage cost of \$118,000 includes an estimated 1,130 feet of gravity sewer line such as that required for Site 3, and additionally, a force main and lift station which are required due to the topography of the site. The sewerage cost for the Lihue Plantation Yard Site

(Site 5) would be higher as the area is not included in the County's sewage plan and will, therefore, be assessed an additional fee for connecting with the system.

Sewerage costs for the Wailua Homestead Makai Site (Site 1) and the Wailua Homestead Mauka Site (Site 2) are based on the need to provide both sewer lines and wastewater treatment works, in accordance with Act 282, SLH 1985, as amended by Act 302, SLH 1986. Sewer line cost is estimated at \$68,000, while the cost for wastewater treatment works is estimated at \$150,000, for a total cost of \$218,000.

Table A-4 provides a summary of combined off-site and on-site costs for improvements at each of the sites.

#### 4. Bus Subsidy Cost

An allowance for bus transportation is provided for students who reside more than one mile in walking distance from school. Bus subsidy costs are computed based on the number of students who qualify for the bus subsidy, and the cost of the bus service.

An analysis of the distance between each potential site and residential areas within the service area revealed that if the proposed school were to be located at the Wailua Homestead Mauka Site (Site 1), approximately 60% of the students would require busing. If the school were to be located at the Wailua Homestead Makai Site (Site 2), approximately 65% of all students within the proposed service area would be bused. For the Wailua Golf Course Site (Site 3), virtually all students would have to be bused to school. This site is more than one mile away from residential population centers in Hanamaulu and Wailua Homestead. If the school were to be located at either of the two Hanamaulu sites (Sites 4 and 5), approximately 50% of all students within the proposed service area would have to be bused to school.

To assess busing costs, student enrollment for the proposed elementary school in 1990 was assumed at 300 students while enrollment for the year 2010 was projected at 900 students, the design enrollment. The bus subsidy rate established by the Department of Accounting and General Services (DAGS) is \$165 per bus per day in 1990. The annual cost is determined by a 175-day school year. Passenger capacities for each bus is placed at 120 students, assuming that each 60-passenger bus can make 2 runs in each direction per day.

TABLE A-4  
COST SUMMARY

<u>SITE</u>	<u>WAILUA HOMESTEAD MAUKA SITE (1)</u>	<u>WAILUA HOMESTEAD MAKAI SITE (2)</u>	<u>WAILUA GOLF COURSE SITE (3)</u>	<u>FORMER HANAMAULU ELEMENTARY SCHOOL SITE (4)</u>	<u>LIHUE PLANTATION YARD SITE (5)</u>
Grading	\$ 207,000	\$ 207,000	\$ 207,000	\$ 207,000	\$ 207,000
Roadway	\$ 92,000	\$ 92,000	\$ 92,000	\$ 92,000	\$ 92,000
Water	\$1,011,000	\$1,011,000	\$ 631,000	\$ 131,000	\$ 61,000
Drainage	\$ 104,000	\$ 104,000	\$ 146,000	\$ 111,000	\$ 154,000
Sewage	\$ 218,000	\$ 218,000	\$ 87,000	\$ 124,000	\$ 180,000
Elec./Tele.	\$ 68,000	\$ 68,000	\$ 80,000	\$ 68,000	\$ 71,000
Gas	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000
Landscaping	<u>\$ 184,000</u>	<u>\$ 184,000</u>	<u>\$ 184,000</u>	<u>\$ 184,000</u>	<u>\$ 184,000</u>
Subtotal	\$1,897,000	\$1,897,000	\$1,440,000	\$ 930,000	\$ 962,000
20 Percent Contingency	<u>\$ 379,400</u>	<u>\$ 379,400</u>	<u>\$ 288,000</u>	<u>\$ 186,000</u>	<u>\$ 192,400</u>
TOTAL	\$2,276,400	\$2,276,400	\$1,728,000	\$1,116,000	\$1,154,400

Bus subsidy costs were calculated on a present worth basis for an assumed service life of the school of 20 years, from 1990 to 2010. During this period the student population is assumed to grow steadily at a rate of 5.67% per year to achieve the design enrollment (peak enrollment counts were omitted to simplify the analysis). The DAGS-established busing cost of \$165.00 per bus per day in 1990 is assumed to increase at a steady annual rate of 5% due to inflation.

Bus subsidy costs calculated on this basis for the Wailua Homestead Mauka (Site 1) and Makai (Site 2) Sites were estimated at \$1.70 and \$1.80 million, respectively (in 1987 dollars). The cost of bus subsidy for the Wailua Golf Course Site (Site 3) is approximately \$2.67 million (in 1987 dollars). Bus subsidy cost for the Former Hanamaulu Elementary School (Site 4) and Lihue Plantation Yard (Site 5) Sites was estimated at \$1.47 million (in 1987 dollars). Tables A-5 through A-8 show the incremental increase in the number of buses required.

TABLE A-5  
BUSING REQUIREMENTS FOR THE  
WAILUA HOMESTEAD MAUKA SITE  
(SITE 1)

<u>Year</u>	<u>No. of Students Qualified For Bus Subsidy</u>	<u>No. of Buses Required Daily</u>
1990	180	2
1991	190	2
1992	201	2
1993	212	2
1994	224	2
1995	237	2
1996	250	3
1997	264	3
1998	279	3
1999	295	3
2000	312	3
2001	329	3
2002	348	3
2003	368	4
2004	388	4
2005	410	4
2006	433	4
2007	458	4
2008	484	5
2009	511	5
2010	540	5

TABLE A-6

BUSING REQUIREMENTS FOR THE  
WAILUA HOMESTEAD MAKAI SITE  
(SITE 2)

<u>Year</u>	<u>No. of Students Qualified For Bus Subsidy</u>	<u>No. of Buses Required Daily</u>
1990	195	2
1991	206	2
1992	218	2
1993	230	2
1994	243	3
1995	257	3
1996	271	3
1997	286	3
1998	303	3
1999	320	3
2000	338	3
2001	357	3
2002	377	4
2003	398	4
2004	421	4
2005	445	4
2006	470	4
2007	496	5
2008	524	5
2009	554	5
2010	585	5

TABLE A-7

BUSING REQUIREMENTS FOR THE  
WAILUA GOLF COURSE SITE  
(SITE 3)

<u>Year</u>	<u>No. of Students Qualified For Bus Subsidy</u>	<u>No. of Buses Required Daily</u>
1990	300	3
1991	317	3
1992	335	3
1993	354	3
1994	374	4
1995	395	4
1996	417	4
1997	441	4
1998	466	4
1999	492	5
2000	520	5
2001	549	5
2002	580	5
2003	613	6
2004	647	6
2005	684	6
2006	722	7
2007	763	7
2008	806	7
2009	852	8
2010	900	8

**TABLE A-8**  
**BUSING REQUIREMENTS FOR THE**  
**HANAMAULU SITES\***  
**(SITES 4 & 5)**

<u>Year</u>	<u>No. of Students Qualified For Bus Subsidy</u>	<u>No. of Buses Required Daily</u>
1990	150	2
1991	158	2
1992	167	2
1993	177	2
1994	187	2
1995	197	2
1996	209	2
1997	220	2
1998	233	2
1999	246	3
2000	260	3
2001	274	3
2002	290	3
2003	306	3
2004	324	3
2005	342	3
2006	361	4
2007	382	4
2008	403	4
2009	426	4
2010	450	4

\*Former Hanamaulu Elementary School Site and  
 Lihue Plantation Yard Site