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

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:
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

Prepared by:
Wilson Okamoto and Associates, Inc.
Planners, Engineers, Architects
Honolulu, Hawaii
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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-Mailu 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 Hanamauu-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 Hanamauu Elementary School Site (Site 4) and Lihue Plantation Yard Site (Site 5), are located in Hanamauu. The Lihue Plantation Yard Site lies mauka of Kuhio Highway while the Former Hanamauu 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, Hanamauu, and Kapaa.
D. Relationships to Plans, Policies and Controls

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

- State Land Use Classification
- County General Plan
- 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 Puhí to Moloa. 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>
<thead>
<tr>
<th>Subdivision</th>
<th>Units</th>
<th>County Status</th>
<th>Potential Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wailua Homestead</td>
<td>557</td>
<td>Approved</td>
<td>235</td>
</tr>
<tr>
<td>Hula Manu</td>
<td>107</td>
<td>Approved</td>
<td>21</td>
</tr>
<tr>
<td>Puu Kaa</td>
<td>139</td>
<td>Approved</td>
<td>30</td>
</tr>
<tr>
<td>Kawaihau</td>
<td>175</td>
<td>Approved</td>
<td>120</td>
</tr>
<tr>
<td>Mountain View</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half-Acre Lots</td>
<td>51</td>
<td>Approved</td>
<td>51</td>
</tr>
<tr>
<td>Puu Pilo</td>
<td>34</td>
<td>Pending</td>
<td>34</td>
</tr>
<tr>
<td>Stepovich/Baldry</td>
<td>31</td>
<td>Pending</td>
<td>31</td>
</tr>
<tr>
<td>Waialeale Partner</td>
<td>250</td>
<td>Pending</td>
<td>250</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>772</strong></td>
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<table>
<thead>
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<th>Units</th>
<th>County Status</th>
<th>Potential Units</th>
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<tr>
<td>Ulu Ko</td>
<td>170</td>
<td>Approved</td>
<td>170</td>
</tr>
<tr>
<td>Molokoa</td>
<td>284</td>
<td>Pending</td>
<td>284</td>
</tr>
<tr>
<td>Wiliko Expansion</td>
<td>326</td>
<td>Pending</td>
<td>326</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>780</strong></td>
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*All developments are single-family residences*
TABLE 2
CLASSROOM REQUIREMENTS FOR ACCOMMODATING PROJECTED ENROLLMENTS AT EXISTING SCHOOLS

KAPAA ELEMENTARY SCHOOL

<table>
<thead>
<tr>
<th>Classroom Inventory</th>
<th>Existing</th>
<th>1990</th>
<th>Additional Design</th>
<th>Peak</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Permanent Classrooms</td>
<td>43</td>
<td>7</td>
<td>7</td>
<td>-</td>
<td>57</td>
</tr>
<tr>
<td>Portable Classrooms</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>16</td>
</tr>
</tbody>
</table>

WILCOX ELEMENTARY SCHOOL

<table>
<thead>
<tr>
<th>Classroom Inventory</th>
<th>Existing</th>
<th>1990</th>
<th>Additional Design</th>
<th>Peak</th>
<th>Total</th>
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<tr>
<td>Permanent Classrooms</td>
<td>42</td>
<td>5</td>
<td>11</td>
<td>-</td>
<td>58</td>
</tr>
<tr>
<td>Portable Classrooms</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>School</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Kapaa Elementary Classrooms</td>
<td>$2,530,000</td>
</tr>
<tr>
<td>Kapaa High Dining/Service Kitchen</td>
<td>$2,130,000</td>
</tr>
<tr>
<td>Kapaa High Library</td>
<td>$1,050,000</td>
</tr>
<tr>
<td>Wilcox Elementary Classrooms</td>
<td>$2,650,000</td>
</tr>
</tbody>
</table>

Total .......... $8,360,000

### TABLE 4

cost estimate for new elementary school*  
(In 1985 dollars)

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Planning and Design</td>
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</tr>
<tr>
<td>EIS, Site Selection</td>
<td>$ 35,000</td>
</tr>
<tr>
<td>Master Plan</td>
<td>$ 40,000</td>
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<table>
<thead>
<tr>
<th>Construction</th>
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<tbody>
<tr>
<td>Classrooms, regular (36)</td>
<td>$5,400,000</td>
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<tr>
<td>Classrooms, special education (3)</td>
<td>$ 480,000</td>
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<tr>
<td>Portables (8)</td>
<td>$ 320,000</td>
</tr>
<tr>
<td>Administration</td>
<td>$ 580,000</td>
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<tr>
<td>Library</td>
<td>$ 650,000</td>
</tr>
<tr>
<td>Dining Room-Serv. Kitchen</td>
<td>$1,100,000</td>
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<tr>
<td>Parking</td>
<td>$ 50,000</td>
</tr>
<tr>
<td>Playcourt</td>
<td>$ 100,000</td>
</tr>
</tbody>
</table>

Total .......... $8,755,000

*Preliminary estimates prepared by DOE.
Proposed Service Areas

Fig. 2

The New Hanamau-Waiau Elementary School Site Selection Report and Environmental Impact Statement

DEPARTMENT OF ACCOUNTING & GENERAL SERVICES
WILSON OKAMOTO & ASSOCIATES, INC.
population centers lying within the new service area are Wai'lua Homestead and Hanamalu. 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 800 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 Kapaa Intermediate and High School. Kapaa Elementary students will continue to feed into Kapaa Intermediate and High School.
### TABLE 5

**OPERATING COSTS**

<table>
<thead>
<tr>
<th>Office Staff</th>
<th>1985 Annual Salary</th>
<th>Number Required</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>$33,300</td>
<td>1</td>
<td>$33,300</td>
</tr>
<tr>
<td>Vice-Principal</td>
<td>$29,950</td>
<td>1</td>
<td>$29,950</td>
</tr>
<tr>
<td>SASA</td>
<td>$14,580</td>
<td>1</td>
<td>$14,580</td>
</tr>
<tr>
<td>Clerk-Typist</td>
<td>$12,500</td>
<td>1</td>
<td>$12,500</td>
</tr>
<tr>
<td>Librarian</td>
<td>$19,075</td>
<td>1</td>
<td>$19,075</td>
</tr>
<tr>
<td>Counselor</td>
<td>$19,075</td>
<td>1</td>
<td>$19,075</td>
</tr>
<tr>
<td><strong>Custodial Staff</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head Custodian</td>
<td>$13,689</td>
<td>1</td>
<td>$13,689</td>
</tr>
<tr>
<td>Custodian</td>
<td>$12,700</td>
<td>2</td>
<td>$25,400</td>
</tr>
<tr>
<td><strong>Food Services</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Van Driver</td>
<td>$8,500</td>
<td>1</td>
<td>$8,500</td>
</tr>
<tr>
<td>Cook Helpers</td>
<td>$6,270</td>
<td>2</td>
<td>$12,540</td>
</tr>
</tbody>
</table>

**TOTAL** $188,609

*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
PROPOSED FEEDER COMPLEX

KAPAA ELEMENTARY (K-6)

KAPAA HIGH AND INTERMEDIATE (7-12)

HANAMAU-LUWAILUA ELEMENTARY (K-6)

KAUA'I HIGH AND INTERMEDIATE (7-12)

WILCOX ELEMENTARY (K-6)

Fig. 4
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. Kapaa, 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 Lani (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 Kapaa.
Existing land uses within Hanamauku 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. Kapaa contains single-family housing residences, an upholstery/auto shop, a dry goods store, a church, and dry cleaners. Hanamauku Stream discharges into the mouth of Hanamauku 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 Hanamauku 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 63 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 humanus hudsoni
- Hawaiian gallinule (a'ula)-Gallinula chloropus sandvicensis
- Hawaiian duck (koloa)-Anas wvilliana
- Hawaiian hoary bat-Latirus cinereus senotus

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 Kawaiola 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 Aku'u, Koloa and Cattle Egret.

Kawaiola 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.

III - 3
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 INHIBITED BY 100-YEAR FLOOD
ZONE A
Non-flood areas where flood damages are limited.
ZONE AE
Flood areas of 1% or less expected annual risk of flooding, less than 3% of the area flooded.
ZONE AF
Flood areas of 1% or less expected annual risk of flooding, less than 3% of the area flooded.
ZONE A1
Flood areas of 1% or less expected annual risk of flooding, less than 3% of the area flooded.
ZONE A2
Flood areas of 1% or less expected annual risk of flooding, less than 3% of the area flooded.
ZONE AM
Flood areas of 1% or less expected annual risk of flooding, less than 3% of the area flooded.
ZONE V
Areas with moderate flood risk.
ZONE VE
Areas with moderate flood risk.
ZONE X
Areas with a very low flood risk.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS
ZONE H
Areas where flood risk is considered significant.

OTHER AREAS
ZONE D
Areas where flood risk is considered moderate.

ZONE C
Areas where flood risk is considered low.

ZONE B
Areas where flood risk is considered very low.

ZONE A
Areas where flood risk is considered minimal.

Fig. 5

THE NEW HANAMAUU-WAILUA ELEMENTARY SCHOOL SITE SELECTION REPORT
and ENVIRONMENTAL IMPACT STATEMENT
Job No: 04-16-5192
prepared for:
Department of Accounting & General Services
prepared by:
Scale in Feet

*Reprinted from the National Geographic Vertical Datum of 1959
### TABLE 6

**EXPLANATION OF FLOOD ZONE DESIGNATIONS**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Special flood hazard areas inundated by 100-year flood; no base flood elevations determined.</td>
</tr>
<tr>
<td>AE</td>
<td>Special flood hazard areas inundated by 100-year flood; base flood elevations determined.</td>
</tr>
<tr>
<td>AH</td>
<td>Special flood hazard areas inundated by 100-year flood; flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.</td>
</tr>
<tr>
<td>AO</td>
<td>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.</td>
</tr>
<tr>
<td>A99</td>
<td>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.</td>
</tr>
<tr>
<td>V</td>
<td>Special flood hazard areas inundated by 100-year flood; coastal flood with velocity hazard (wave action); no base flood elevations determined.</td>
</tr>
<tr>
<td>VE</td>
<td>Special flood hazard areas inundated by 100-year flood; coastal flood with velocity hazard (wave action); base flood elevations determined.</td>
</tr>
<tr>
<td>X</td>
<td>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.</td>
</tr>
<tr>
<td>D</td>
<td>Areas in which flood hazards are undetermined.</td>
</tr>
</tbody>
</table>

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 Hanamauu Bay, the flood designations include A, AE and VE. The designation for the lower reaches of Hanamauu Stream is A while Hanamauu 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 8 feet in height.

Mala'e 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.

III - 7
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 Waialua 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**

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

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, Wailea Falls and Opaekaa Falls. Hanamaulu Stream, Opaekaa Stream, and Wailea 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 Koolau 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 Kapaa 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:

- **Pristine-Preservation-** Streams with high environmental and biological quality which should be preserved.

- **Limited Consumptive-** Streams with moderate to high quality water or natural values, whose use is controlled to prevent excessive modification.
Explosive-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.

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 - Waialua River and Hanamaulu Stream. Waialua River is located along the northern extent of the service area and Hanamaulu Stream is located at the southern extent. Both Waialua River and Hanamaulu Stream, and their tributaries, are categorized as Explosive-Consumptive.

b. Marine Waters

The marine waters within Hanamaulu Bay and Waialua Bay have been classified by the State Department of Health as "Class A" (Chapter 54 - Water Quality Standards of Title II, 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 Waialua 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 - Waialua, Hanamaulu, and Kapaa. The 1980 populations for Waialua and Hanamaulu were 1,587 and 3,227, respectively. Kapaa 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
genral, 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 Hicats 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, Milco
Elementary School, and Kauai Intermediate and High
School. Immaculate Conception, a private school, is
located just south of Hanamaulu.

III - 13
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 Hanamauu.

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 Hanamauu.

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 Ha'ouli Day Activity Center located in Hanamauu. 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 Kuaoo Road. Kuaoo 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 Hanamauu-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 6-inches) are located in the service area. Storage facilities include the Puupu, Kondo and Kupapa Tanks serving the Wailua area, and Lihue and Kulepa Tanks serving the Hanamaulu/Kapaia area.

Total water consumption for the 1984-85 period in the Wailua-Kapaia 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 Kapaa 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 Kauaoo 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 Kapaa 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:

- 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.

- 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:

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

- 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 Kapaa 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:

IV - 2
Preserve Kauai lifestyle
- 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 Kapaa 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:

- **Acreage:** 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 Waialua 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 areal 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 Lauhala 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.
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 cane fields 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 Hailua 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
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:

- School Site Criteria
- Community Criteria
- 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

      i. 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.
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.

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.

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.

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.

- 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 0 to 6-foot depth or (2) coral or rocky soil with a depth of less than 11 feet or (3) marshy soil or (4) lava.

- 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

- 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.

- 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.

- 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.

- 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.

- **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.

- **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**

- **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.

- **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.

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.

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.

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.
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<th>Wailua Homestead Makai Site (2)</th>
<th>Wailua Golf Course Site (3)</th>
<th>Former Hanamaulu Elem Sch. Site (4)</th>
<th>Lihue Plantation Yard Site (5)</th>
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VI - 10
<table>
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<tr>
<th>Criteria Evaluation</th>
<th>Wailua Homestead Mauka Site (1)</th>
<th>Wailua Homestead Makai Site (2)</th>
<th>Wailua Golf Course Site (3)</th>
<th>Former Hanamalu Elem Sch. Site (4)</th>
<th>Lihue Plantation Yard Site (5)</th>
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<tr>
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<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
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</tbody>
</table>

VI - 11
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 202, SLH 1985, as amended by Act 302, SLH 1986. The presently developed Wailua
<table>
<thead>
<tr>
<th>TABLE 10</th>
<th>Wailua Homestead Mauka Site (1)</th>
<th>Wailua Homestead Makai Site (2)</th>
<th>Wailua Golf Course Site (3)</th>
<th>Former Hanamalu Elementary School Site (4)</th>
<th>Lihue Plantation Yard Site (5)</th>
</tr>
</thead>
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<tr>
<td>Off-Site Improvements</td>
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<td>$0.95</td>
<td>$0.60</td>
<td>$0.08</td>
<td>$0.07</td>
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<tr>
<td>On-Site Improvements</td>
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<td>0.95</td>
<td>0.84</td>
<td>0.85</td>
<td>0.89</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$1.90</td>
<td>$1.90</td>
<td>$1.44</td>
<td>$0.93</td>
<td>$0.96</td>
</tr>
<tr>
<td>Contingencies (20%)</td>
<td>0.38</td>
<td>0.38</td>
<td>0.29</td>
<td>0.19</td>
<td>0.19</td>
</tr>
<tr>
<td>Land Acquisition</td>
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<td>0.08</td>
<td>0.13</td>
<td>0.17</td>
<td>0.01</td>
</tr>
<tr>
<td>Bus Subsidy Costs</td>
<td>1.70</td>
<td>1.80</td>
<td>2.67</td>
<td>1.47</td>
<td>1.47</td>
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<tr>
<td><strong>Total Estimated Cost</strong></td>
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<td><strong>$4.16</strong></td>
<td><strong>$4.53</strong></td>
<td><strong>$2.76</strong></td>
<td><strong>$2.63</strong></td>
</tr>
</tbody>
</table>

*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 II.
<table>
<thead>
<tr>
<th></th>
<th>Waialua Homestead Mauka Site (1)</th>
<th>Waialua Homestead Makai Site (2)</th>
<th>Waialua Golf Course Site (3)</th>
<th>Former Hanamaulu Elementary School Site (4)</th>
<th>Lihue Plantation Yard Site (5)</th>
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<tbody>
<tr>
<td>School Site Criteria Total (G)</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>(P)</td>
<td>6</td>
<td>9</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Community Site Criteria Total (G)</td>
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<td>5</td>
<td>6</td>
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<td></td>
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<td></td>
<td>(P)</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>4</td>
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G = Good  
F = Fair  
P = Poor

Cost Considerations (cost expressed in millions of 1987 dollars)

<table>
<thead>
<tr>
<th>Development Costs</th>
<th>$0.95</th>
<th>$0.95</th>
<th>$0.60</th>
<th>$0.08</th>
<th>$0.07</th>
</tr>
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<tbody>
<tr>
<td>Off-Site Development</td>
<td>$0.95</td>
<td>$0.95</td>
<td>$0.84</td>
<td>$0.85</td>
<td>$0.89</td>
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<tr>
<td>On-Site Development</td>
<td>$1.90</td>
<td>$1.90</td>
<td>$1.44</td>
<td>$0.93</td>
<td>$0.96</td>
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<tr>
<td>Subtotal</td>
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<td>$3.85</td>
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<td>$1.95</td>
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<td>Contingencies (20%)</td>
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<td>0.38</td>
<td>0.29</td>
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<td>0.19</td>
</tr>
<tr>
<td>Land Acquisition</td>
<td>0.08</td>
<td>0.08</td>
<td>0.13</td>
<td>0.17</td>
<td>0.01</td>
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<tr>
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<td>1.70</td>
<td>1.80</td>
<td>2.67</td>
<td>1.47</td>
<td>1.47</td>
</tr>
<tr>
<td>Total Estimated Cost</td>
<td>$4.06</td>
<td>$4.16</td>
<td>$4.53</td>
<td>$2.76</td>
<td>$2.63</td>
</tr>
</tbody>
</table>

*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 Hanamalu 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 Hanamalu 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 Mailua 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**

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


Traffic conditions along Kuhio Highway near the Kualoa Park Road accessway to the Wai'anae 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

<table>
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<th>2:30-3:30 PM</th>
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</thead>
<tbody>
<tr>
<td>1983 Volume (vph)</td>
<td>443</td>
<td>794</td>
</tr>
<tr>
<td>Existing (1986) Volume (vph)</td>
<td>484</td>
<td>667</td>
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<td>Existing (1986) LS</td>
<td>B</td>
<td>F</td>
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Projected (1990) Volume (vph)

without school
Projected (1990) LS without school

vph = Vehicles per hour
LS = Level of Service

(Projected (1990) Volume (vph)

with school
Projected (1990) LS with school

vph = Vehicles per hour
LS = Level of Service

*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>
<thead>
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</thead>
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<tr>
<td>1985 Volume (vph)</td>
<td>1,391</td>
<td>1,208</td>
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<tr>
<td>Existing (1986) Volume (vph)</td>
<td>1,433</td>
<td>1,244</td>
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<tr>
<td>Existing (1986) LS</td>
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<td>D</td>
</tr>
<tr>
<td>Projected (1990) Volume (vph)</td>
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<td></td>
</tr>
<tr>
<td>without school</td>
<td>1,613</td>
<td>1,400</td>
</tr>
<tr>
<td>Projected (1990) LS without school</td>
<td>E</td>
<td>D</td>
</tr>
<tr>
<td>Projected (1990) Volume (vph)</td>
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<td></td>
</tr>
<tr>
<td>with school</td>
<td>1,636</td>
<td>1,423</td>
</tr>
<tr>
<td>Projected (1990) LS with school</td>
<td>E</td>
<td>D</td>
</tr>
</tbody>
</table>

LS - Level of Service  
vph - Vehicles per hour
<table>
<thead>
<tr>
<th></th>
<th>7:00-8:00 AM</th>
<th>2:30-3:30 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985 Volume (vph)</td>
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<td>1,284</td>
</tr>
<tr>
<td>Existing (1986) Volume (vph)</td>
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<td>1,323</td>
</tr>
<tr>
<td>Existing (1986) LS</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Projected (1990) Volume (vph)</td>
<td></td>
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</tr>
<tr>
<td>without school(^a)</td>
<td>566</td>
<td>515</td>
</tr>
<tr>
<td>Projected (1990) LS without school(^a)</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Projected (1990) Volume (vph)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with school(^a)</td>
<td>606</td>
<td>555</td>
</tr>
<tr>
<td>Projected (1990) LS with school(^a)</td>
<td>C</td>
<td>C</td>
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</tbody>
</table>

LS - Level of Service
vph - Vehicles per hour

\(^a\)Assuming the completion of the Hanamalu-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

<table>
<thead>
<tr>
<th></th>
<th>7:00-8:00 AM</th>
<th>2:30-3:30 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Waialua-bound</td>
<td>Lihue-bound</td>
</tr>
<tr>
<td>1985 Volume (vph)</td>
<td>419</td>
<td>970</td>
</tr>
<tr>
<td>Existing (1986)</td>
<td>432</td>
<td>999</td>
</tr>
<tr>
<td>LS</td>
<td>B</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>949</td>
<td>679</td>
</tr>
<tr>
<td></td>
<td>979</td>
<td>699</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>D</td>
</tr>
<tr>
<td>Projected (1990)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume (vph)</td>
<td>216</td>
<td>499</td>
</tr>
<tr>
<td>without schoola</td>
<td></td>
<td>489</td>
</tr>
<tr>
<td>Projected (1990)</td>
<td></td>
<td>349</td>
</tr>
<tr>
<td>LS without schoola</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Projected (1990)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume (vph)</td>
<td>266</td>
<td>552</td>
</tr>
<tr>
<td>with schoola</td>
<td></td>
<td>542</td>
</tr>
<tr>
<td>Projected (1990)</td>
<td></td>
<td>399</td>
</tr>
<tr>
<td>LS with schoola</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>A</td>
</tr>
</tbody>
</table>

LS - Level of Service
vph - Vehicles per hour

*Assuming the completion of the Hanamaulu-Ahukini Cutoff Road.

Morning Waialua-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 Waialua-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 Hanamalu-Ahukini Cutoff Road. Traffic volumes along Kuhio Highway are anticipated to be significantly reduced as an alternate route would be provided within Hanamalu. A preliminary engineering report, the Hanamalu-Ahukini Cutoff Road (State Department of Transportation, 1979), shows a reduction in traffic along Kuhio Highway from Kapaa Road to Hanamalu 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 Hanamalu Road to the junction of Kuhio Highway and the Hanamalu-Ahukini Cutoff Road.

Projected traffic conditions along Kuhio Highway near the Kukou 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 Hanamalu. 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 Hanamalu-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 Hanamalu-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**

<table>
<thead>
<tr>
<th>SITE</th>
<th>OPENING ENROLLMENT (300 students)</th>
<th>DESIGN ENROLLMENT (900 students)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BUSES</td>
<td>CARS&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Wailua Homestead Mauka (Site 1)</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Wailua Homestead Makai (Site 2)</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Wailua Golf Course (Site 3)</td>
<td>3</td>
<td>26</td>
</tr>
<tr>
<td>Former Hanamauhu Elementary School (Site 4)</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Lihue Planation Yard (Site 5)</td>
<td>2</td>
<td>26</td>
</tr>
</tbody>
</table>

<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-traveled 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 Waflua Homestead Mauka and Makai Sites (Sites 1 and 2) are generally considered compatible with surrounding land uses.

The Waflua 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 Hanamalu 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 Hanamalu 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 Hanamalu 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

VII - 14
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 Waialua 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 Waialua Homestead area. For the Waialua 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 Waialua Homestead area; all homes are served by cesspools. It is, therefore, assumed that a school located at the Waialua 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-Waialua 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.
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 Waiʻula 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 Waiʻula Homestead Mauka Site (Site 1), the majority of the Lihue Plantation Yard Site (Site 5) and a portion of the Waiʻula 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 Waiʻula Homestead Makai Site (Site 2), Waiʻula 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 Waiʻula 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.
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
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

XII - 1
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
4200 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 Loa Street
Lihue, Kauai, Hawaii 96766

Kauai Community College
Pahi
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 Kolopa Street
Kapa'a, Kauai, Hawaii 96746

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

XII - 2
INDIVIDUALS - Continued

Ms. Cheryllyn 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
133 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

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

XIII - 1
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 Nanakuli-Waianae Elementary School, Kauai. The following comments are offered:

a. School sites 1 and 2 are near Kapaa 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,

Kaauw Cheung
Chief, Engineering Division

---------

Mr. Klaus Cheung
Chief, Engineering Division
U.S. Army Engineer District, Honolulu
Department of the Army
Fort Shafter, Hawaii 96850-5440

Dear Mr. Cheung:

Subject: New Nanakuli-Waianae Elementary School EIS Consultation Phase

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

The Waianae Homesteads Nukua and Makai Sites (Sites 1 and 2, respectively) do not contain any wetlands. This determination 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,

PAWAI TANAKA
State Public Works Engineer
MEMORANDUM

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

FROM: Kent M. Keith, Murray F. Tarruel

SUBJECT: Hanamau-Maialua 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
Sr. Ernest Kosaka, Project Leader
Office of Environmental Services
U.S. Department of the Interior
Fish and Wildlife Service
309 Ala Moana Boulevard
P. O. Box 50167
Honolulu, Hawaii 96850

Dear Mr. Kosaka:

Subject: New Manamalu-Waiau 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 Waiau Homestead Waialua 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,

TEDUNE TOMINAGA
State Public Works Engineer

SN:wk
MEMORANDUM

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

Subject: Draft Environmental Impact Statement (EIS)
   Site Selection Report
   New Hanalei-Kuilau Elementary School

THK: 3-7-08: 20
   3-7-05: por. 19
   3-8-07: por. 11
   4-2-02: por. 99
   4-2-03: por. 12, Waialua, Kauai

Acres: 8.17, 7.29, 3.44, 8.50, 8.50, 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 "fringe" 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. Kohala loam (PtA) with wet to moist slopes and a soil capability classification of I11. Uses include sugarcane, pineapple, orchard, truck crops, and pasture.

Site 2. Kohala loam (PtA and PtB) with wet to moist slopes and a soil capability classification of I11. Uses include sugarcane, pineapple, orchard, truck crops, and pasture.

Site 3. Makaleha clay loam (HtA) with little slope and soil capability classification of IIw and IIIe, respectively. Uses include sugarcane, taro (HtA only), pineapple (HtC only), and pasture.

Site 4 and 5. Lihue silty clay loam (LhE) with 0 to 3 percent slopes and a soil capability classification of I2E. 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 "w" refers to erosion hazard, "m" is wet or poorly drained areas and "e" 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 - D28 with poor productivity potential.

Site 3 - (1) C11 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.

Jack D. Dunham
Chairman, Board of Agriculture

cc: OEQC

Mr. Hideo Murakami
August 23, 1986
Honorable Jack S. Suna
Chairman, Board of Agriculture
Department of Agriculture
State of Hawaii
1428 South King Street
Honolulu, Hawaii 96814-2512

Dear Mr. Suna:

Subject: New Hanamolu-Maluwa 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 towards 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,

[Signature]

AIDEO MURAKAMI
State Comptroller
Site Selection Report
New Nanakuli-Mailiu Elementary School
Page 1

Based on the above, the Department of Education, in consultation with Kaunui District, recommends Site 4 as the location of the new Nanakuli-Mailiu Elementary School.

Sincerely,

Francis N. Hataoka
Superintendent

cc: Dr. Nakashima
Office of Business Services

Honorable Hiroshi 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 Nanakuli-Mailiu Elementary School

Dear Mr. Murakami:

The Department of Education has reviewed the site selection report and draft environmental impact statement for the new Nanakuli-Mailiu Elementary School in Kaunui District and recommends locating the new elementary school at Site 4 - Former Nanakuli 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 Puhila-Mailiu-Nanakuli 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
OCT 21 '86

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

Dear Mr. Hatansaka:

Subject: New Nanakuli-Maili 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 Nanakuli Elementary School site (Site A) 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
MEMORANDUM

To: Mr. Hideo Murakami, State Controller
    Department of Accounting & General Services

From: Director of Health

Subjects: New Hanalei-Kekaha Elementary School EIS Consultation Phase

September 17, 1966

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 281, SLH 1959 as amended by Act 301, SLH 1965. If the wastewater flow is 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: DOH, Kauai
Honorable John Levin
Director
Department of Health
State of Hawaii
Honolulu, Hawaii

Dear Dr. Levin:

Subject: New Manamaula-Wailua 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 open fields 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 use. 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 present pasture land use are determined to be insignificant.

We appreciate your input for this project.

Very truly yours,

[Signature]
State Comptroller
The Honorable Hideo Murakami
Department of Accounting and General Services
Division of Public Works
1111 Punchbowl St.
P.O. Box 219
Honolulu, HI 96810

Dear Mr. Murakami:

SUBJECT: DEIS for New Mananalu-Maile Elementary School

Thank you for the opportunity to review and comment on the subject Draft DEIS. In essence, although the Draft DEIS 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 or 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.

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 survey, 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 Lyndale area of Maile 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 548-7537.

Very truly yours,

[Signature]
Chairperson
Board of Land and Natural Resources
Honorable William Paty
Chairman
Department of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Mr. Paty:

Subject: New Hanamolu-Mallus 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 W. WATAYA
State Comptroller
Department of Accounting and General Services

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

Gentlemen:

Subject: New Hanamaulu-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,

[Signature]

Richard W. Dunck
State Conservationist
MEMORANDUM

TO: The Honorable Wayne J. Yamazaki, State Comptroller
Department of Accounting and General Services

FROM: Director of Transportation

SUBJECT: New Hanamalu-Waipio Elementary School, Kauai
EIS Consultation Phase

An evaluation of the alternative sites for the proposed Hanamalu-Waipio 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. Looloo Street in Hanamalu is signalized for pedestrians, and
3. Kuhio Highway in Hanamalu has sidewalks.

The proposed school Sites 1 and 2 in Waipio Homesteads are objectionable because the Kamehameha 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 access to the school.

We appreciate this opportunity to provide comments.

Wayne J. Yamazaki

Honorable Wayne J. Yamazaki
Director of Transportation
Department of Transportation
State of Hawaii
565 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Yamazaki:

Subject: New Hanamalu-Waipio 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,

Mideo Murakami
State Comptroller
COUNTY OF KAILUA
DEPARTMENT OF PUBLIC WORKS

August 19, 1988

Mr. Yuki Harashima
State Auditor
Department of Accounting
760 Kapiolani Boulevard
Honolulu, HI 96814

SUBJECT: WAIKIKI-KAHALA ELEMENTARY SCHOOL
      SITE CONSIDERATION PHASE

We are providing comments as requested in your letter dated August 1, 1988 in regard to the concept project.

The site will have access to various County roadways. The evaluation criteria on the adequacy of roadways appears to be focusing upon a 45 feet wide road right of way to obtain a rating of good. We wish to point out that a street with a 45 feet wide right of way is categorized as a minor road and when constructed with curbs, gutters, and sidewalks would provide two travel lanes and only one parking lane. Generally, parking on minor streets (with curbs, gutters and sidewalks) are permitted along both sides of the street with traffic moving between the parked vehicles. Consequently, it may be appropriate to use a 50 feet wide right of way as a collector street criteria as the Wai'anae Street to provide access to the site.

Additionally, adequacy of roadways should include features such as entrance width, grade 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. Hence, the evaluation criteria should also include the traffic impacts on the alternate routes.

Site 5, Paoa Kaimuki School Site, is accessible to public power 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, Lilikoi Plantation Road Site, as poor for adequacy of sewer service (Appendix A) due to extensive offsite development of sewer connections. However, Table A-2, Offsite Improvement Costs, indicates that the offsite 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 systems, the sewer line at the intersection of Kamehame street and Ewa Highway in the direction of Liliko’i Plantation Road near the school. The offsite development 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.

Yours truly,

[Signature]

Kahului Elementary School
County Engineer
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:  

<table>
<thead>
<tr>
<th>R.O.W.</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 feet</td>
<td>Good (+)</td>
</tr>
<tr>
<td>44 feet</td>
<td>Fair (0)</td>
</tr>
<tr>
<td>Less than 44 feet</td>
<td>Poor (-)</td>
</tr>
</tbody>
</table>

   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 geometries in its evaluation by basing its rating on R.O.W. widths and the existence or need for road improvements meeting County standards.  

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

2. Sewers  
   a. Site 6 Sewage  
      The cost of a lift station will be included in the on-site sewerage cost for Site 4.  
   b. Site 3 Sewage  
      Thank you for the additional information on the availability of a nearby sewer line. Site 3 will be reevaluated to reflect this information.  

We appreciate your input for this project.  

Very truly yours,  

Terasa Tonimaha  
State Public Works Engineer  

SH:jk
DEPARTMENT OF WATER
COUNTY OF KAUAI
P.O. BOX 1796
LILUE, HAWAII 96766-5706

August 20, 1986

Mr. Hideo Murakami
State Comptroller
Dept. of Accounting
and General Services
P.O. Box 116
Houaloha, HI 96710

Re: Proposed Hanamalu-Waialua Elementary School EIS Draft Review

Thank you for inquiring about the availability of water for this project. Any actual subdivision or development of these areas will be dependent on the adequacy of the source, storage and transmission facilities existing at that time.

At the present time, the following comments are applicable:

Site 1.1.2.3

The existing source facilities for the Waialua area 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 flows to the proposed school.

Site 1.2.3.4

The existing source facilities are adequate. However, the storage facilities for the Hanamalu area are at capacity. Additionally, the transmission facilities for Site 4 are not adequate.

Raymond H. Sato
Manager and Chief Engineer
Department of Water

Mr. Raymond H. Sato
Manager and Chief Engineer
Department of Water
County of Kauai
P.O. Box 1796
Lilue, Hawaii 96766-5706

Dear Mr. Sato:

Subject: New Hanamalu-Waialua Elementary School EIS Consultation Phase

Thank you for your August 20, 1986 comments on the project.

The Site Selection Report and Draft EIS will be revised in accordance with your comments on the available water facilities for the various sites. Cost estimates for necessary improvements will be provided such that these improvements can be considered in the overall evaluation of alternative sites.

We appreciate your input for this project.

Very truly yours,

Yoshikazu
State Public Works Engineer
September 3, 1986

In reply refer to: File #86-6-302/HR

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

Attention Mr. Stephen Miwa

SUBJECT: NEW HANAMAU-HAUMUA 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 Romo or Mr. Glen Takenouchi in our Engineering office at 335-6228.

Very truly yours,

[Signature]
Alton H. Miyamoto
Manager, Engineering

\[Signature\]

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

Dear Mr. Miyamoto:

Subject: New Hanamaulu-Haumua 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,

[Signature]
TEJANE TEMINADA
State Public Works Engineer

SHIHOH
August 14, 1986

Mr. Eldo Murahashi
Dept. of Acct. & Gen. Services
Division of Public Works
1131 Punchbowl Street
P. O. Box 119
Honolulu, HI 96810

Subject: New Nanakuli-Waialua 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

OCT 20 1986

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

Dear Mr. Tehada:

Subject: New Nanakuli-Waialua 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,

KOBE Tominaga
State Public Works Engineer

Sincerely

PO BOX 591 • KAUAI, HAWAII 96791 • TELEPHONE (808) 245-5755 • CALEB (808) 269-2777
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 Ewa School District, to the Site Selection Report and Draft Environmental Impact Statement for the new Nanakuli - Waianae Elementary School on Ewa. We live in the Waianae Homesteads area, and our youngest of 3 is in the third grade in 1990 and will be involved in the opening of the new school. My older sons presently attend Ewa Elementary School.

I hope you will consider the following comments on the site selection for the next stage of planning:

Traffic is the greatest concern in the areas of the two Waianae Homesteads and the two sites in Hanamau. My husband travels daily to work from Waianae Homesteads and through Hanamau 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 Waianae Golf Course Site would not be greatly affected because of the wide highway and the flowing traffic. Traffic entering from the highway would be situated there where it 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 Waianae Golf Course Site, also because it is owned by the State of Hawaii and the other sites were to have been purchased.

As a teacher of the primary G/t students at Ewa Elementary School I foresee the utilization of the Waianae Golf Course site at the absolute site. Outdoor education and expanded 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 Waianae Golf Course Site is also free from industrial and agricultural nuisances, unlike the sites in Hanamau. We reside in the Hanamau Teachers Collegetis in 1973 (under State housing) and the sugar cane burning and traffic was intolerable. I do not wish to subject students to that. In 1973 the traffic from the highway to Hanamau School was already deplorable and it is even more so in 1990.

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

Also, Hanamau School is presently being used to serve 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 are very 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 busing the whole Waianae Homesteads students into another community to attend school should the site be the community of Waianae Homesteads which is about twenty minutes traveling time. That reminds me of the days in the South where students were purposely bussed into another community for purposes of integration. 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 Waianae 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 Hanamau and the narrow residential roads of Waianae Homesteads.

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

Yours truly,

[Signature]

[Name, Cheryl A. Inouye]
Mrs. Cheryl Lyn M. Inouye
69 Aloe Street
Kapa'a, Hawaii 96746

Dear Mrs. Inouye:

Subject: New Hanamaulu-Waialua Elementary School
EIS Consultation Phase

Thank you for your August 22, 1986 comments on the subject project. Your preference for the Waialua Golf Course Site and objection to the Hanamaulu and Waialua 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 Waialua 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 Waialua Golf Course site (Site 3) is rated fair because the entire area is zoned agricultural and the site is directly across an actively farmed cannery.

5. Displacement of Tenants

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

6. Busing

Many schools throughout the state accommodate two or more communities because of geographic locations and limited enrollment. This is the case for Ni'ihau Elementary which serves students from Kiholo and Hanamaulu and also the case for Kapa'a Elementary which serves students from Kapa'a and Waialua 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,

TAMIKI S. TOMIYAMA
State Public Works Engineer

SH: jk
你好，我是 MARY ISHIDA。我是两个孩子（年龄6和4）的母亲，我正在写信谈论新威卢库-南桑努小学的地点选择问题。

在报告中，Okamoto 与 Associates 没有描述两个社区的独特的社会和文化的方面以及相关学校的挑战。他们认为这些社区是完全不同的。当学生高中毕业，他们将根据不同的方向前往不同的学校。这种二元性在两个最合适的地点中再次出现，即：Urban (Hanauma) 与 Rural ( Waikoua)。

夏威夷州计划声明其目标之一是 "为个人提供多样化的教育机会，以满足他们的需求、责任和抱负。" 作为威卢库的居民，我的大部分时间都在去 Lihi - State 和 County 商店购物、去 Waikoua 购物，甚至去 Westside 等等。然而，我选择不成为 Hanauma-Lihue 社区的一部分。那里太繁忙、喧嚣，但又有点过于城市化。那里是一个美丽的小镇，气温会随着季节的变化而变化。但是，每天我都会经过 Hanauma 湾附近，享受它的宁静、它的美和它的凉爽。

南桑努的许多居民会抱怨那里的交通状况，但我更喜欢南桑努的环境，因为那里的环境更接近自然。

我写这封信是想表达我对南桑努的热爱。

感谢你的考虑。

Mary Ishida (Mrs. Clyde)
Mrs. Mary Ishida
6130 Kolopua Street
Kapaa, Hawaii 96746

Dear Mrs. Ishida:

Subject: New Hanamaulu-Wallus 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 Wallus Homesteads.

2. Site Preference

Your preference for the site in Wallus or the Wallus 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 also consider all aspects of school, community and cost considerations.

3. Traffic

The new Hanamaulu-Ahukini bypass road was designed to alleviate congestion on Kohio Highway through Hanamaulu Town. The traffic analysis verifies this by showing a significant traffic volume reduction for 1990. (Table 16)

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 Lihu'e 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 much as possible, the serenity of a rural setting should also be a consideration. Therefore, the rating for both Wallus Homestead Sites (Sites 1 and 2) will be reassessed to consider the aesthetics of a pasture.

5. Industrial and Agricultural Noisances

Site 4 is rated good because the adjacent cane fields 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.
7. **Rushing**

The text will be revised to reduce any impression that the Hanamakalu 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,

TEUANE TOMINAGA
State Public Works Engineer

SH:jk
August 28, 1986

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

Dear Mr. Murakami:

Thank you for sending me a copy of the Site Selection Report and Draft Environmental Impact Statement for the New Hanamau - Wallius 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 Hanamau. Although the Hanamau-Ahuiki 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 Hilo in the morning and toward Kapaa during the late afternoon. One needs only to drive to Hilo from Kapaa during school days and during the summer to note that school transportation does affect traffic conditions markedly. The last traffic emergency we experienced, which resulted in massive traffic congestion on Kuahiwi Highway toward Kapaa, shows that traffic in this direction will always be heavy after working hours. If the school was built in the Wallius sites, school traffic would be going opposite of peak business traffic hours.

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

3. I disagree with the rating that rates Hanamau good on Natural Beauty and Wallius Homestead Fair. How was this rating decided....one is a pasture, the other a croxiefiled.

4. A real plus for the Wallius Golf Course site is that it is almost midway between Hanamau and Wallius 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 Hanamau 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 Hanamau.

Sincerely,

Eugene M. Mace
4. Location of Waiku Golf Course Site (Site 3)

We agree that the central location of the Waiku Golf Course site is a positive asset but, as you indicated, it has the concomitant disadvantage of having the highest housing 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 ensure 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,

[Signature]

TEIUME TOMINAGA
State Public Works Engineer

SNjK
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


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 226
P.O. BOX 10
HONOLULU, HAWAII 96818-0100

June 7, 1987

Mr. Steve Miwa
Division of Public Works,
Planning Branch
Department of Accounting
and General Services
P.O. Box 112
HONOLULU, HAWAII 96810-0119

Dear Mr. Miwa:

Thank you for the opportunity to review and comment
on the new Kauai County Flood Insurance Rate Map (FIRM)
submitted on June 7, 1987. The following comments are offered:

a. According to the Flood Insurance Rate Map (FIRM)
   submitted on June 7, 1987, the proposed pilot site
   should be located in Zone X only, an area of minimal
   flooding. The map and revised FIRM are enclosed.

b. Pages 137-4, 5, 6 adequately cover flooding.

Sincerely,

[Signature]

Chief, Engineering Division

Enclosures
June 8, 1987

Ms. Leilani H. Uyehara
Office of Environmental Quality
Kauai
455 S. King St., Room 115
Hilo, HI 96721

Dear Ms. Uyehara:

Subject: Draft EIS — Site Selection Report for New Hanamaulu-Valina 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,

[Signature]

Richard W. Duncan
State Conservationist

cc:
Mr. Steve Higa
Div. of Public Works, Planning Br.,
Dept. of Accounting & General Services
P.O. BOX 129
Hilo, HI 96720-0129
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 HANANALU-NIULU ELEMENTARY SCHOOL.

The Site Selection Report and Draft EIS for the New Hananalu-Niulua
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,

Y. C. CRANE
Captain, CEC, HNavy

Enclosure

Copy to:

Mr. Steve Nius
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
4401 New Cumberland Street, Room 104
Huntington, West Virginia 25701

Director
Office of Environmental Quality Control
4401 South King Street, Room 104
Honolulu, Hawaii 96813

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

Dear Sir:

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

Our 26 August 1980 letter to the Department of Accounting and General Services identified a wetland immediately north of the proposed Malua Homesteads Malua 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 Naka, DAGS

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

Subject: New Hanamalo-Malua 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,

TEHANE TOMINAGA
State Public Works Engineer

Mr. Jk
MEMORANDUM

To: Director  
Office of Environmental Quality Control

Subject: Site Selection Report and Draft Environmental Impact Statement (EIS) for the New Hanamakuku-Waiau Elementary School

Department of Accounting and General Services

THK: 3-9-02; por. 19  
3-9-06; por. 11  
4-9-02; por. 59  
4-9-02; por. 12  
Waiau, Honolulu

Acres: 8.0, 7.36, 11.48, 8.0, 8.0, respectively

The Department of Agriculture has 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  
Chairperson, Board of Agriculture

August 21, 1986

MEMORANDUM

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

Subject: Draft Environmental Impact Statement (EIS)  
Site selection Report  
New Hanamakuku-Waiau Elementary School

THK: 3-9-02; por. 19  
3-9-06; por. 11  
4-9-02; por. 59  
4-9-02; por. 12  
Waiau, Honolulu

Acres: 8.0, 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), 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. Pali silty clay loam (PnB) with 3 to 5 percent slopes and a soil capability classification of I.C. Uses include sugarcane, pineapple, orchard, truck crops and pasture.

Site 1. Pali silty clay loam (PnA and PnB) with 0 to 3 percent slopes and a soil capability classification of I.C. and I.D., respectively. Uses include sugarcane, pineapple, orchard, truck crops and pasture.
Site 4 and 5, Liluee silty clay (LH) with 0 to 8 percent slopes with a soil capability classification of T41. 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 "a" 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 - E19 with poor productivity potential.

Site 3 - (1) C11 with good productivity potential for sugarcane, french, grazing and orchard, (2) D23 with poor productivity potential.

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

Thank you for the opportunity to comment.

JACK K. SUDA
Chairman, Board of Agriculture

cc: GZGC
May 20, 1987

RE: [Initial]

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

Dear Director:

Ohia Elementary School
Honolulu, Hawaii

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,

[Signature]

Jerry N. Kataoka
Major, Hawaii Air National Guard

cc: DACS, Div of Public Works
MEMO TO: Honorable Russel S. Nagata, State Comptroller
       Department of Accounting & General Services

FROM: Charles T. Toguchi, Superintendent
      Department of Education

SUBJECT: Site Selection Report/ Draft EIS
         New Hanamalu-Waiau 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 Libue and Waialae districts, it seems appropriate to locate the school close to one of the primary communities being served. In meeting long-range needs, there will be a need to monitor the growth in the Libue/Waialae area for another elementary school.

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

CT: 37
cc S. Akira, Kaua'i Dist.
    E. Imai, OAH

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

Dear Mr. Toguchi:

Subject: New Hanamalu-Waiau Elementary School
        EIS Public Review Phase

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

Your preference of the Former Hanamalu 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 1989.

Sincerely yours,

RUSSEL S. NAGATA
State Comptroller
TO: DIRECTOR  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  

FROM: H.E. WILCOX PRINCIPAL  

RE: ENVIRONMENTAL IMPACT STATEMENT (EIS)  

June 20, 1987  

STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
ELIN H. WILCOX ELEMENTARY SCHOOL  
P.O. BOX 119  
HONOLULU, HI 96810-0119  

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

Dear Mrs. Morita:  

Subject: New Hananamu-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 Hanamalu Ele-  
mentary 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,  

TUGARE TOMIHAGA  
State Public Works Engineer  

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

MEMORANDUM

To: Director, Office of Environmental Quality Control
From: Director of Health
Subject: Site Selection Report and Draft Environmental Impact Statement for
New Nanakuli-Waiku Elementary School, Nanakuli-Waiku, 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 595, SLH, 1975 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.

cc: Chief Sanitarian, Kauai
Mr. Steve Milwa, DAGS

HONORABLE JOHN C. LEWIN
Director
Department of Health
State of Hawaii
Honolulu, Hawaii

Dear Dr. Levin:

Subject: New Nanakuli-Waiku Elementary School
EIS Public Review Phase

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

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

Very truly yours,

RUSSEL J. MACRI
State Comptroller

JOHN C. LEWIN, M.D.
HONORABLE JOHN C. LEWIS

JUN 23 1987

MINORAHIN

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

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

SUBJECT: Review of Draft Environmental Impact Statement (EIS)
          New Kuanapu-Kalua Elementary School
          Hanamaulu, Hamakua, Hamakua
          TNK: 4-2-02; por. 59; 4-2-03; por. 12;
          3-8-69; por. 11; 7-7-03; 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.

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

Dear Mr. Paty:

Subject: New Hanauma-Valua Elementary School EIS Public Review Phase

Thank you for your June 25, 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 construction 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,

RusSELL S. WAiLETA
State Comptroller
MEMORANDUM

TO:       Director
          Office of Environmental Quality Control

FROM:     Roger A. Uweiling

SUBJECT:  DEIS for New Hanapala-Maluma Elementary School, Kamal

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

Thank you for the opportunity to review the subject document.

[Signature]
for Director

cc:  Mr. Steve Hues
     Division of Public Works, DADS
June 29, 1987

Dear Mr. Hirata:

We have reviewed the Draft EIS of the subject project as directed by your notice dated May 21, 1987. We had previously expressed our concern 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 Puhio Highway.

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

Very truly yours,

Edward Y. Hirata
Director of Transportation

cc: Mr. Steve Mima, DAGS

Hwy-P, STP(dt)

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

Mr. Hirata:

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

Thank you for your June 29, 1987 comments on the subject project.

Your preference for the New Waiakea-Waiakea Elementary School Site (Site 4) is noted and will be considered in the final site selection phase.

Very truly yours,

Russel S. Moana
State Comptroller
May 28, 1987

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

Dear Mr. Misa:

Subject: Draft Environmental Impact Statement for the New
Hanamolu-Wailua Elementary School,
Hanamolu-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,

[Signature]

John C. Loe 1, M.D.
Director of Health
for Director, OHA
Office of Environmental Quality Control

Demographic sethbacks

A problem not fully addressed in the DEIS is that of busstop. 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.

I imply but not directly discussed was the fact that, should the school be located in Hananalu, buses from Wailea would be travelling through heavy traffic in both directions. In this situation, children from Wailea would have to sit idle while travelling through heavy traffic, wasting potential study time, etc. This could constitute an unfair advantage to students from Hananalu. This is not to say students from Hananalu would not have a similar problem in the reversed condition. However, it seems the majority of traffic would be travelling 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 counting by bus would be appropriate information to include in this document.

Noise

We note that the Hananalu 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 landing at the Lihue Airport for the Wailea 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 proposed for site 1, 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 Wailea Golf Course site is an exceedingly dangerous access entrance from the highway and represents a significant safety hazard. The Wailea Homestead site is well away from major traffic arteries, in close to a park and basically presents a much safer environment.

Alternatives

The alternative of expanding the two existing schools rather than development of a third should be considered.
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, Ph.D.
Environmental Coordinator

cc: Steve Niva, DACS
L. Stephan Lau
Michael Graves
Jon Matsuioka
Marshall Hock
Jacqueline Miller
Pamela Bahnson
Jennifer Crumess

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 Hanamulu-Waiulu 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 Waiulu would "waste" time on buses traveling through heavy traffic if the new school is located in Hanamulu. 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 Waiulu than the present school in Lihue. Based on this, we do not agree that the selection of a site in Hanamulu is a "demographic setback."
3. Noise

The estimated noise levels at the school sites are based on findings of the ongoing FAR Part 150 Noise Compatibility Study for Linus 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.8.3.b. of the EIS. Public safety and health, and surrounding land uses which are discussed in Section VII.8.4 and VII.8.5, respectively, also address related long-term safety concerns.

6. Alternative

As stated in the EIS, expansion of the existing Wiltex and Kapas 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,

TEUNAE TOMINAFA
State Public Works Engineer

SHJk
University of Hawaii at Manoa
Water Resources Research Center
Holomua Hall, 3404 Waiau Street
Honolulu, Hawaii 96822

4 June 1997

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

Dear Sir:


We have reviewed the subject DEIS and have no comment to offer. Thank you for the opportunity to comment. This material was reviewed by WRRC personnel.

Sincerely,

Edwin T. Murabayashi
KIS Coordinator

ETM:jm

cc: S. Miwa, DACS
June 5, 1987

Director
Office of Environmental Quality Control
455 South King Street, Room 104
Honolulu, HI 96813

Res: Proposed Hanamaulu-Wailua Elementary School EIS Review

Dear Mr. Seto:

Subject: New Hanamaulu-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,

[Signature]

State Public Works Engineer
Based on the subject report, we further offer the following comments:

1. Sites 1 and 2 are not considered desirable due to the substandard Kaumoo and Gohena 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 Kukui Highway. Even though the report makes continued reference to the Auwahi bypass as a major benefit in addressing traffic congestion, we do not concur. Should actual highway volumes be reduced as projected by your updated traffic study, we do not believe that an additional "move" point would 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 roadway unless alternate roadways are available—in these instances, none exist.

3. Section IV-4.3 "County Zoning" should make specific reference to the applicable Standards and Criteria contained in the County's Comprehensive Zoning Ordinance No. 164a, 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 IV-4.2, "Community Criteria - Government." Flexibility as to types of ways is provided in the Code 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. YOUN
Planning Director

c/c: Mr. Steve Kime

Dept. of Accounting & General Services
OCT 23 1987

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.

Page 2

Mr. Tom Shigemoto

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 Kohio Highway will be reduced as a result of the Hanamaulu-Wailua Cutoff Road was derived from the State Department of Transportation report Hanamaulu-Wailua 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.1.e. 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 an 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 TOWHAMA
State Public Works Engineer

SH:Jk
August 8, 1986

Mr. Cary Okamoto
Wilson, Okamoto & Associates
1150 So. King Street
Honolulu, Hawaii 96814

Subject: General Plan Amendment GPA-86-2

Enclosed for your information is a copy of a proposed ordinance relating to additional urban expansion of the Lihue and Poipu 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 Manacly of my staff.

Sincerely,

Avery H. Youn
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 3-1-02:POR. 1, LIHUE AND PUHI, KAUI, FROM "AGRICULTURE, OPEN AND URBAN RESIDENTIAL" TO "URBAN MIXED USE"

(Grove Farm Properties, Inc.)

BE IT ORDAINED BY THE COUNCIL OF THE COUNTY OF KAUI, 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 3-1-02: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 plan area 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
LEGEND:
PROPOSED AMENDMENT TO GENERAL LAND USE PLAN FROM AGRICULTURE, OPEN, AND URBAN RESIDENTIAL TO URBAN MIXED USE

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: PR. 1 AND 3-3-02: PR. 1 LIHUE AND PUHI, KAUAI GPA-86-2
September 3, 1986

Mr. Avery Youn, Director
Planning Department
County of Kauai
4200 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 Hanalei-Waimea Elementary School Site Selection Study is limited to the region between Hanalei Town and Waimea Homesteads. In this regard, we are not able to provide substantive input relative to additional educational facilities requirements, beyond those presently recognized for the Hanalei-Waimea 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,

Michael Naoki, Project Manager

cc: Mr. Steve Milne, DGAS

---

October 2, 1986

Mr. Avery H. Youn, Director
Planning Department
County of Kauai
4200 Rice Street
Lihue, Kauai, HI 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 Pupu project by Grove Farm Properties, Inc.

Our enrollment projection for the Pupu 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,

Francis N. Hatano
Superintendent

cc: DGAS
K. Nakashima, Kauai Dist.
V-T. Toriumi, DGAS

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER
May 29, 1987

In reply refer to:
File #65-6-302MR

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

SUBJECT: EIS FOR NEW HANAMANUI-WAILUA 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]

K. M. Higa
Manager, Engineering

Cc: Mr. Steve Miwa
Div. of Public Works, Planning Branch

KAUAI ELECTRIC
A COMPANY OF SOUTH COAST UTILITIES
Electric, Telephone, Water and Gas Service to Customers in Hawaii and Communities in Many States Across the Nation
Dear Mr. Steve Hiva,

I am taking the opportunity to comment on the Site Selection Report and Draft Environmental Impact Statement for the New Kailua-Waialua Elementary School on Oahu.

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 PUEO that they state about the time frame in regards to when the final selection state of Hawaii governor would make the selection around December 1986.

I received a reply in March 1987 from Mr. Teuane Tominga, that is now June and I received the Impact Statement now with the addition of the Consultation Phase comments and responses. My letter from Mr. Toh Eel Matsumura 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 Kaeua Elementary School. In reference to page 31-3 (Project Need and Description) of the Impact Statement, it states that "of the 2,720 K-12 enrollment in 1987, 3,109 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 3,342 students enrolled for September 1987. There will inevitably be an increase when school opens due to Waianae High School opening and Waianae having the housing facilities for employees and other newcomers. We are talking of 1,137 capacity with a reality of 3,342 students in 1987. The longer it takes to choose a site, the higher our enrollment increases beyond our capacity.

The 2,720+ K-12 student enrollment at Waianae share one cafeteria. Can you imagine feeding 3,342 K-6 students in 45 minutes (10:30 to 11:35 AM)?

It is horrendous. It is unforgivable what we do to these children (too of my sons are among them) to herd 3,342 children to eat in one building at the same time. What we do for adult-height tables to accommodate the high school. We also must share one library building, with our K-6 librarian (no aide) serving the 3,342+ students, who will have 11 kindergarten classes in 1987. You will be sharing a room.

I am also a teacher at Waianae 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 classrooms.

The need for facilities is now. It is 1987 and the site selection must be made immediately.

I speculate from the comments by the DOLS engineer, Mr. Teuane Tominga, that the former Hanauma 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 Hanauma school site was already determined and why am I spending my time and efforts in recommending the Waianae Golf Course site. I see that now from reading the reports and responses.

I accept that I suggest we act now to immediately start the next phase of planning facilities for the site. Why did we have to go through a year of this consultation phase and what phase are we in now? Hanauma Elementary School had already been approved five years ago and served its community. It is incredible that we must lose time when the site has passed approval previously for all the reasons that it was built. My concern is to act faster to alleviate the overcrowded conditions at Wilcox and Waianae Elementary School. It is to our children who face these conditions as we wait for each phase to pass.

As much as I recommend a Waianae site to be chosen to serve the growing needs of the Waianae district, I urge the department to select the Hanauma School site. And, we must at the same time look to the future and select one of the Waianae sites because it is inevitable that Waianae 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 10 years since the Waianae 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 housed to the Hanauma 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 Hanauma. 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: Russell S. Nagaoka
    Director, Office of Environmental Quality Control
    John Walker, Honorable Governor of Hawaii
Ms. Cherylyn M. Inouye  
69 Aleo Street  
Kapaa, Hawaii 96746  

Dear Ms. Inouye:

Subject: New Hanalei-Wallis Elementary School  
Site Selection Report and EIS

In response to your June 19, 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 DACS 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 informa-  
tion available has been presented and evaluated  
before the recommendation is made. Your prefer-  
ence 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,

TEUANE TOWINAKA
State Public Works Engineer

SN:jk  
ccl: Governor John Waihee  
Mr. Charles Toyohara
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, 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
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
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


17. U.S. Department of Agriculture, Soil Conservation Service, in cooperation with the University of Hawaii, Agricultural Experiment Station, Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii, Issued August 1972.


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 Hanamau-lu-Wailua Elementary School.

A. School Site and Community Criteria Results

SITE 1: WAILUA HOMESTEAD MAUKA SITE

School Site Criteria

1. Environmental Characteristics

<table>
<thead>
<tr>
<th>Environmental Characteristics</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Highway Noise</td>
<td>Good</td>
</tr>
<tr>
<td>Distance from highway/truck route: 1,900 feet.</td>
<td></td>
</tr>
<tr>
<td>b. Aircraft Noise</td>
<td>Good</td>
</tr>
<tr>
<td>Outside the 55 Ldn Noise Contour.</td>
<td></td>
</tr>
<tr>
<td>c. Industrial and Agricultural Nuisances</td>
<td>Good</td>
</tr>
<tr>
<td>Degree of effect: The site is free from industrial and agricultural nuisances.</td>
<td></td>
</tr>
<tr>
<td>d. Rainfall</td>
<td>Poor</td>
</tr>
<tr>
<td>Average Annual Rainfall: 54.4 inches.</td>
<td></td>
</tr>
<tr>
<td>e. Foundation</td>
<td>Good</td>
</tr>
<tr>
<td>Soil Character Code: I4L</td>
<td></td>
</tr>
<tr>
<td>Description: The soils are non-rocky with well drained surfaces. The underlying material, at a depth of more than 15 feet, is consolidated lava.</td>
<td></td>
</tr>
<tr>
<td>g. Natural Beauty</td>
<td>Good</td>
</tr>
<tr>
<td>Existing trees, plants, rock formations: Pasture.</td>
<td></td>
</tr>
<tr>
<td>Potential for beautification: Yes. Crossed by overhead lines: No.</td>
<td></td>
</tr>
</tbody>
</table>
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: There is no public bus service on Kauai.
   Service availability: Poor

e. Traffic Flow: The site is adjacent to Opaekaa Road, a street which serves primarily residential uses.
   Existing conditions: Fair

RATING TOTALS

<table>
<thead>
<tr>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>0</td>
</tr>
<tr>
<td>Fair</td>
<td>3</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
</tr>
</tbody>
</table>

Community Criteria

1. Government
a. State Land Use District Map Designation
   District Designation: Agriculture.
   Poor

b. County General Plan Designation
   General Plan Designation: Rural Residential and Agriculture (the majority of the site is Agriculture).
   Poor

c. County Zoning Designation
   Zoning Designation: Agriculture. A zoning change is required.
   Poor

d. Agricultural Land Classification
   Productivity Rating: C.
   Fair

RATING TOTALS

<table>
<thead>
<tr>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>0</td>
</tr>
<tr>
<td>Fair</td>
<td>1</td>
</tr>
<tr>
<td>Poor</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Community Effects
a. Interference with Institutions
   Distance from hospitals, rest homes, etc.: 4.1 miles (Mahelona Samuel Memorial Hospital, Kapaa).
   Good

b. Existing Land Use
   Present Use: Pasture.
   Good
c. Proximity to Commercial Centers
   Distance from commercial centers:
   3 miles.
   Good

d. Aesthetic Value
   The site is an aesthetic asset to the community: Yes.
   Site development will obstruct scenic vistas: Yes.
   Poor

e. Location
   Percentage of students in walking distance: 40 percent.
   Poor

RATING TOTALS
   Good .................. 3
   Fair .................. 0
   Poor .................. 2
SITE 2: WAILUA HOMESTEAD MAKAI SITE

School Site Criteria

1. Environmental Characteristics

<table>
<thead>
<tr>
<th>Rating</th>
<th>a. Highway Noise: Distance from highway/truck route: 20 feet (adjacent to Kuamoo Road).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>b. Aircraft Noise: Outside the 55 Ldn Noise Contour.</td>
</tr>
<tr>
<td>Good</td>
<td>c. Industrial and Agricultural Nuisances: The site is free of industrial and agricultural nuisances.</td>
</tr>
<tr>
<td>Good</td>
<td>d. Rainfall: Average Annual Rainfall: 54.4 inches.</td>
</tr>
<tr>
<td>Poor</td>
<td>e. Foundation: Soil Character Code: I4L.</td>
</tr>
<tr>
<td>Good</td>
<td>f. Soil Description: The soils are non-rocky with well-drained surfaces. The underlying material, at a depth of more than 15 feet, is consolidated lava.</td>
</tr>
</tbody>
</table>

RATING TOTALS

<table>
<thead>
<tr>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>5</td>
</tr>
<tr>
<td>Fair</td>
<td>0</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
</tr>
</tbody>
</table>

2. Roads and Utilities

<table>
<thead>
<tr>
<th>Rating</th>
<th>a. Adequacy of Road: The site is served by Kuamoo Road which has a right-of-way width of less than 44 feet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td></td>
</tr>
</tbody>
</table>

A - 5
b. Adequacy of Water Supply

The site is inadequately served and will require extensive off-site development (including source development).

Poor

c. Adequacy of Sewer Service

Wastewater treatment works will be required in accordance with Act 282, SLH 1985, as amended by Act 302, SLH 1986.

Poor

d. Adequacy of Drainage Facilities

Connection to off-site drainage facilities will be required.

Fair

e. Adequacy of Power and Communications

The site is proximate to adequate existing lines.

Good

RATING TOTALS

Good .................. 1
Fair ................... 1
Poor ................... 3

3. Accessibility

a. Pedestrian Access

Number of sides access is available: 1.

Poor

b. Pedestrian Safety

Existing conditions: No paved walkways or shoulders exist along Kuamoo Road. The site may require traffic signals in addition to walkway and shoulder improvements.

Poor

c. Automobile Access

Existing conditions: Access to the site is via Kuamoo Road which runs along one short side of the school lot.

Poor

d. Bus Service

Service Availability: There is no public bus service on Kauai.

Poor

e. Traffic Flow

Existing conditions: The site is adjacent to Kuamoo Road, a secondary through street.

Fair
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

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

   a. Highway Noise
      Distance from highway/truck route: 700 feet.
      Rating: Fair
   
   b. Aircraft Noise
      Outside the 55 Ldn Noise Contour.
      Rating: Good
   
   c. Industrial and Agricultural Nuisances
      Degree of effect: Within limits of tolerance.
      Rating: Fair
   
   d. Rainfall
      Average Annual Rainfall: 54.4 inches.
      Rating: Poor
   
   e. Foundation
      Soil Character Code: I3L, V13W, V14C.
      Rating: Fair
   
   f. Soil
      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.
      Rating: Fair
   
   g. Natural Beauty
      Existing trees, plants, rock formations: Insignificant.
      Potential for beautification: Yes.
      Crossed by overhead lines: No.
      Rating: Good

RATING TOTALS

   Good ....................... 2
   Fair ...................... 4
   Poor ..................... 1

2. Roads and Utilities

   a. Adequacy of Road
      The site is served by Leho Drive roadway which has a right-of-way width of 70 feet.
      Rating: Good
b. Adequacy of Water Supply
   The site is inadequately served and will require extensive off-site development (including source development).
   Poor

c. Adequacy of Sewer Service
   Off-site sewer connections to the County sewer system, proximate to the site, will be required.
   Good

d. Adequacy of Drainage Facilities
   Connection to off-site drainage facilities will be required.
   Fair

e. Adequacy of Power and Communications
   Off-site improvements consisting of overhead lines and cables will be required.
   Fair

RATING TOTALS

Good .................. 2
Fair .................. 2
Poor .................. 1

3. Accessibility

a. Pedestrian Access
   Number of sides access is available: 2.
   Fair

b. Pedestrian Safety
   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.
   Poor

c. Automobile Access
   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.
   Good

d. Bus Service
   Service Availability: There is no public bus service available on Kauai.
   Poor

e. Traffic Flow
   Existing conditions: The site is proximate to Kuhio Highway.
   Good
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 HANAMALU ELEMENTARY SCHOOL SITE

School Site Criteria

1. Environmental Characteristics

a. Highway Noise
   Distance from highway/truck route: 500 feet.
   Rating: Fair

b. Aircraft Noise
   Outside the 55 Ldn Noise Contour.
   Rating: Good

c. Industrial and Agricultural Nuisances
   Degree of effect: The existing residential zoning designation of land north of the site will free the site from industrial and agricultural nuisance.
   Rating: Good

d. Rainfall
   Average Annual Rainfall: 54.4 inches.
   Rating: Poor

e. Foundation
   Soil Character Code: Not coded. The site is labelled "u" for Urban use.
   Rating: Good

f. Soil
   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.
   Rating: Fair

g. Natural Beauty
   Existing trees, plants, rock formations: Yes.
   Potential for beautification: Yes.
   Crossed by overhead lines: No.
   Rating: Good

RATING TOTALS

<table>
<thead>
<tr>
<th>Rating</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>4</td>
</tr>
<tr>
<td>Fair</td>
<td>2</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
</tr>
</tbody>
</table>
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**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Fair</td>
<td>1</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
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<tr>
<td>Fair</td>
<td>0</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
</tr>
</tbody>
</table>

A - 15
2. Community Effects

a. Interference with Institutions
   Distance from hospitals, rest homes, etc.: 1.2 miles (Wilcox Memorial Hospital, Lihue).

b. Existing Land Use
   Present Use: Day activity center for developmentally disabled adults, a headstart program facility for youngsters, and a facility for other community-related uses.

Good

Fair

Good

Good

Fair

RATING TOTALS

Good ............... 3
Fair ................ 2
Poor ............... 0
SITE 5: LIHUE PLANTATION YARD SITE

School Site Criteria

1. Environmental Characteristics

   a. Highway Noise
      Distance from highway/truck route: 100 feet.
      Rating: Poor

   b. Aircraft Noise
      Outside the 55 Ldn Contour.
      Rating: Good

   c. Industrial and Agricultural Nuisances
      Degree of effect: The site is subjected to frequent agriculturally-related dust, noise, and odor.
      Rating: Poor

   d. Rainfall
      Average Annual Rainfall: 54.4 inches.
      Rating: Poor

   e. Foundation
      Soil Character Code: Not coded. The site is labelled "U" for Urban use.
      Rating: Good

   f. Soil
      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.
      Rating: Fair

   g. Natural Beauty
      Existing trees, plants, rock formations: Sugarcane.
      Potential for beautification: Yes.
      Crossed by overhead lines: No.
      Rating: Good

RATING TOTALS

<table>
<thead>
<tr>
<th>Rating</th>
<th>Count</th>
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<tr>
<td>Good</td>
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<tr>
<td>Fair</td>
<td>1</td>
</tr>
<tr>
<td>Poor</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Roads and Utilities

   a. Adequacy of Road
      The site is served by Kuhio Highway which has a 95 foot right-of-way width.

      Rating: Good
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
      District Designation: Agriculture and Urban (the majority of the site is Agriculture).
      Poor
   b. County General Plan Designation
      General Plan Designation: Urban Residential and Agriculture (the majority of the site is Agriculture).
      Poor
   c. County Zoning Designation
      Zoning Designation: Open, Agriculture and Industrial (I-G). A zoning change is required.
      Poor
   d. Agricultural Land Classification
      Productivity Rating: B.

RATING TOTALS

Good .................. 0
Fair ................... 0
Poor ................... 4

2. Community Effects
   a. Interference with Institutions
      Distance from hospitals, rest homes, etc.: 0.87 miles (Wilcox Memorial Hospital, Lihue).
      Good
   b. Existing Land Use
      Present Use: Sugarcane.
      Good
   c. Proximity to Commercial Centers
      Distance from commercial centers: 1.7 miles.
      Good
   d. Aesthetic Value
      The site is an aesthetic asset to the community: No.

A - 19
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>
<thead>
<tr>
<th>SITE</th>
<th>TMK OF PARCEL OCCUPIED</th>
<th>VALUE PER ACRE</th>
<th>SITE ACREAGE</th>
<th>SITE VALUE/COST (Rounded to nearest 1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1: Wailua Homestead Mauka Site</td>
<td>4-2-02:59</td>
<td>$9,320</td>
<td>8.0</td>
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<td>Site 2: Wailua Homestead Makai Site</td>
<td>4-2-03:12</td>
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<td>8.0</td>
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<td>Site 3: Wailua Golf Course Site</td>
<td>3-9-06:11</td>
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<td>7.37</td>
<td>$133,000</td>
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<tr>
<td>Site 4: Former Hanamauulu Elementary School Site</td>
<td>3-7-03:20 (canefield)</td>
<td>$27,042</td>
<td>6.33</td>
<td>$171,000</td>
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<td></td>
<td>3-7-03:6</td>
<td>$27,042**</td>
<td></td>
<td></td>
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<tr>
<td>Site 5: Lihue Plantation Yard Site</td>
<td>3-8-02:1</td>
<td>$1,676</td>
<td>7.69</td>
<td>$13,000</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Improvements</th>
<th>Wailua Homestead Mauka Site (1)</th>
<th>Wailua Homestead Makai Site (2)</th>
<th>Wailua Golf Course Site (3)</th>
<th>Former Hanamaulu Elem Sch. Site (4)</th>
<th>Lihue Plantation Yard Site (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Roadway</td>
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<td>$0</td>
<td>$0</td>
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<td>$950,000</td>
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<td>$0</td>
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<tr>
<td>Sewer</td>
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<td>Elec./Tel.</td>
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<td>$12,000</td>
<td>$0</td>
<td>$2,000</td>
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<tr>
<td>Gas</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<td>$950,000</td>
<td>$601,000</td>
<td>$76,000</td>
<td>$68,000</td>
</tr>
</tbody>
</table>

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
Waialua 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 Waialua 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 Waialua 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 Waialua 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 Waialua 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**

<table>
<thead>
<tr>
<th>Improvements</th>
<th>Wailua Homestead Mauka Site (1)</th>
<th>Wailua Homestead Makai Site (2)</th>
<th>Wailua Golf Course Site (3)</th>
<th>Wailua Hanamaulu Elem Sch. Site (4)</th>
<th>Lihue Plantation Yard Site (5)</th>
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<tr>
<td>Grading</td>
<td>$207,000</td>
<td>$207,000</td>
<td>$207,000</td>
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<td>$92,000</td>
<td>$92,000</td>
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<td>$61,000</td>
<td>$61,000</td>
<td>$61,000</td>
<td>$61,000</td>
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<tr>
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<td>$104,000</td>
<td>$146,000</td>
<td>$111,000</td>
<td>$104,000</td>
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<tr>
<td>Sewer</td>
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<td>$218,000</td>
<td>$68,000</td>
<td>$118,000</td>
<td>$165,000</td>
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<td>Elec./Tel.</td>
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<td>$68,000</td>
<td>$68,000</td>
<td>$68,000</td>
<td>$68,000</td>
</tr>
<tr>
<td>Gas</td>
<td>$13,000</td>
<td>$13,000</td>
<td>$13,000</td>
<td>$13,000</td>
<td>$13,000</td>
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<tr>
<td>Landscaping</td>
<td>$184,000</td>
<td>$184,000</td>
<td>$184,000</td>
<td>$184,000</td>
<td>$184,000</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>$947,000</strong></td>
<td><strong>$839,000</strong></td>
<td><strong>$854,000</strong></td>
<td><strong>$894,000</strong></td>
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</tbody>
</table>

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 the 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>
<thead>
<tr>
<th>SITE</th>
<th>WAILUA HOMESTEAD MAUKA SITE (1)</th>
<th>WAILUA HOMESTEAD MAKAI SITE (2)</th>
<th>WAILUA GOLF COURSE SITE (3)</th>
<th>FORMER HANAMAUULU ELEMENTARY SCHOOL SITE (4)</th>
<th>LIHUE PLANTATION YARD SITE (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grading</td>
<td>$207,000</td>
<td>$207,000</td>
<td>$207,000</td>
<td>$207,000</td>
<td>$207,000</td>
</tr>
<tr>
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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 DADS-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.
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*Former Hanahau Elementary School Site and Lihue Plantation Yard Site*