October 30, 1978

MEMORANDUM

To: Honorable Hideo Murakami, Comptroller
    Department of Accounting and General Services

Subject: EIS - Selection of Millani Iki Elementary School Site

Based upon the recommendation of the Office of Environmental Quality Control, I am pleased to accept the subject document as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes, and the Executive Order of August 23, 1971. This environmental impact statement will be a useful tool in the process of deciding whether or not the action described therein should or should not be allowed to proceed. My acceptance of the statement is an affirmation of the adequacy of that statement under the applicable laws, and does not constitute an endorsement of the proposed action.

When you make your decision regarding the proposed action itself, I hope you will 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, will provide you with a useful analysis of alternatives to the proposed action.

George R. Ariyoshi

bcc: Mr. Richard L. O'Connell
ENVIRONMENTAL IMPACT STATEMENT
FOR THE SELECTION OF
MILILANI IKI ELEMENTARY SCHOOL SITE

PREPARED BY
PLANNING BRANCH

DIVISION OF PUBLIC WORKS
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
SEPTEMBER 1978
SUMMARY

The Department of Education via letter of April 5, 1978 states that the official name for this proposed school is "Mililani 4th Elementary School". However, this school is presently identified by the public as "Mililani Iki Elementary School". Thus, the title was changed to "Mililani (4th) Iki Elementary School" and the report will continue to refer to the school as "Mililani Iki Elementary School".

Mililani Iki Elementary School will be located somewhere in the housing development which is presently being constructed in Mililani Town, Wahiawa, Oahu. The housing development is located west of Kamehameha Highway off of Meheula Parkway.

Construction of Mililani Iki Elementary School will permit existing elementary schools to maintain student enrollments below the maximum desirable limit of 800 students.

Five alternative school sites within Mililani Iki Elementary School service area were selected for evaluation. Alternative Site "1" was selected because of its "school" designation on the County General Plan; Sites "2" and "3" because of adjoining park sites; and Sites "4" and "5" because of their location within one road mile from distant homes in the school service area. Sites "4" and "5" are seven acres in size and Sites "1", "2" and "3" are reduced to six acres in size because of adjoining park sites.

Development of the school on Alternative Sites "1" and "3" will not cause major impacts. However, development of the school on Alternative Sites "2", "4" and "5" will require relocation of tenants and residents. The sites are located outside the designated tsunami, flood and hazard zones; landslide and preservation areas; conservation and other use districts; etc. State and County land use designations permit the development of the school on all sites. Impacts normally associated with construction projects on vacant sites such as employment, noise and dust pollutions, etc., will exist. However, these impacts are considered minor and are not anticipated to pose any problem.
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ENVIRONMENTAL IMPACT STATEMENT
FOR THE SELECTION OF
MILILANI IKI ELEMENTARY SCHOOL SITE

PROJECT DESCRIPTION

A. Objective

One of the goals of the Department of Education (DOE) is to provide suitable facilities in which to educate the children of Hawaii. To this end, the objective of this Environmental Impact Statement (EIS) is to locate the most suitable site for the proposed Mililani Iki Elementary School.

B. Background

1. Project Initiation

The petition by the developer, Mililani Town Incorporated, to amend the State Land Use District Boundaries from Agricultural to Urban for 306 acres of land was approved by the State Land Use Commission on October 5, 1973. Approval was granted subject to the developer dedicating the proposed elementary school site shown on the County's Oahu General Plan to the State of Hawaii.

The housing development plan with the school service area delineated and a photograph of the housing development area are shown in Figures 1 and 2, respectively. On December 3, 1973, the following agreement was reached between the developer and the DOE:

a. The developer will donate the school site to the State of Hawaii.

b. The Department of Accounting and General Services (DAGS) shall prepare a site selection study.

c. The school site shall be in accordance with the DOE standards.

d. The pro-rata site development cost assessable to the DOE for the school site shall not exceed $25,000 per acre subject to approval by the Department of Land and Natural Resources (DLNR).

Subsequently, the land was rezoned and the City's General Plan Detailed Land Use Map (DLUM) was amended to permit the proposed development.
The DOE subsequently requested by letter that DAGS prepare a site selection report for Mililani Iki Elementary School. Thus, this EIS is prepared for the selection of the school site. The program specifications as set by the DOE for this EIS are:

a. School service area shown in Figure 1.

b. School grades of kindergarten to six.

c. Design enrollment of 620 students.


2. Alternatives

The alternatives to provide suitable educational facilities for the students that will be residing in the school service area are:

a. Expand existing elementary schools located in Mililani Town.

b. Utilize schools on Oahu where excess classrooms are available due to declining enrollments.

c. Construct the proposed Mililani Iki Elementary School on the most suitable site within the school service area.

Expansion of existing elementary schools located in Mililani Town to accommodate additional students will cause enrollments to exceed the desirable size of 300 elementary students. Expansion may also require acquisition of neighboring properties necessitating relocation of families and demolition of acquired homes. In view of the distances of existing schools with respect to the service area, most of the students will have to be bused to school.

Utilization of elementary schools with declining enrollments on Oahu will necessitate students enduring long bus rides to and from schools. Students assigned to different schools will probably negate the closeness that one would expect in a community. The long distances of schools will also cause much inconvenience to parents seeking counseling or attending meetings.

Construction of the proposed Mililani Iki Elementary School on the most suitable site within the school service area will provide elementary school
students residing in the service area with good educational facilities and an environment comparable to other similar sized communities.

Although construction of a new school is expected to be expensive, the merits of this alternative far outweigh those of the other alternatives. Since the problems associated with the other alternatives will not be in the best interest of the students, construction of a new school is being pursued.

3. Mililani Educational Complex

Mililani Iki Elementary School will be part of the Mililani Educational Complex. The Mililani Educational Complex service area and organizational makeup are shown in Figures 3 and 4, respectively. Presently, students from Mililani Waena, Kipapa, Kunia, Wheeler and Mililani Uka Elementary Schools attend Wheeler Intermediate School upon entering the 7th grade and then go on to Mililani High School.

Proposals call for construction of Mililani Intermediate School to open between 1985-1990. Students from Kipapa and Wheeler Elementary Schools will continue to enter Wheeler Intermediate School after the new intermediate school is constructed. Students from Mililani Waena, Mililani Uka and the proposed Mililani Iki Elementary Schools will feed into the proposed Mililani Intermediate School and then go on to Mililani High School. However, students from these elementary schools will need to attend Wheeler Intermediate School until Mililani Intermediate School is constructed.

The Mililani Feeder Complex plan is based on a steady increase of student population of about 5,000 to 10,000 by 1995. This projection assumes that 13,000 additional housing units will be constructed in Mililani Town. Planning for the complex requires continuous evaluation of the present and projected enrollment situations. Thus, plans may change with changes to enrollment projections.

4. Mililani Iki Elementary School

Funds in the amount of $7,000 were made available from Act 68, Session Laws of Hawaii (SLH) 1971, Item C-49, for the purpose of this study. Act 195, SLH 1975, Section 91, Items IV-F-7-1 and 2
EXISTING
K-6
Millilani-waena
Kipapa
Konia
Wheeler
Millilani-uki*

* Lease facilities - permanent site to open in 1977.

PROPOSED
K-6
Waikalani Woodlands
Development Area
Wheeler
Millilani 5th
(1985-1990)
Millilani 6th
(1990-1995)
**Konia
Kipapa
Millilani-waena
Millilani-uki
Millilani-uki
(1972)
(1985-1990)

**Tentative plans to close between 1983 and 1985

FIGURE 4
FEEDER COMPLEX - MILILANI HIGH SCHOOL

STATE OF HAWAI'I  DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS  PLANNING BRANCH

-7-
authorizes the use of unexpended funds from Act 218, SLH 1974, Items G-63 and G-80 for land acquisition, planning and construction of classrooms and site improvements. Funds in the amount of $579,000 under Act 226, SLH 1976, Section 88A, Item G-13, and $270,000 under Act 10, SLH 1977, Section 84, Item G-11, are available to plan and construct 16 classrooms.

The school will service students entering kindergarten to sixth grade that are residing in the school service area as shown in Figure 1. Design of the school will be based on an enrollment of 620 students. The enrollment projections provided in the DOE's "Enrollment Projections of the Public Schools" dated March 1977 are:

<table>
<thead>
<tr>
<th>School Year</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979-80</td>
<td>286</td>
</tr>
<tr>
<td>1980-81</td>
<td>425</td>
</tr>
<tr>
<td>1981-82</td>
<td>563</td>
</tr>
<tr>
<td>1982-83</td>
<td>695</td>
</tr>
</tbody>
</table>

The facilities that will be required to support the design enrollment of 620 students are shown in Table 1. The standard site size of 7 acres to house these facilities can be reduced to 6 acres of land with permitted use of an adjoining City park.

**TABLE 1**

**FACILITY REQUIREMENTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit Area (sq. ft.)</th>
<th>No. of Units</th>
<th>Total Area (sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>2,990</td>
<td>1</td>
<td>2,990</td>
</tr>
<tr>
<td>Library</td>
<td>4,610</td>
<td>1</td>
<td>4,610</td>
</tr>
<tr>
<td>Serving Kitchen</td>
<td>1,030</td>
<td>1</td>
<td>1,030</td>
</tr>
<tr>
<td>Dining/Multi-Purpose</td>
<td>4,310</td>
<td>1</td>
<td>4,310</td>
</tr>
<tr>
<td>Regular Classrooms</td>
<td>960</td>
<td>24</td>
<td>20,160</td>
</tr>
<tr>
<td>Portable Classrooms 1/</td>
<td>960</td>
<td>3</td>
<td>2,880</td>
</tr>
<tr>
<td>Special Classrooms</td>
<td>1,200</td>
<td>3</td>
<td>3,600</td>
</tr>
<tr>
<td>Special Ed. Classroom</td>
<td>1,030</td>
<td>1</td>
<td>1,030</td>
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<tr>
<td>Teachers' Workroom</td>
<td>400</td>
<td>3</td>
<td>1,200</td>
</tr>
<tr>
<td>Vehicular Parking 2/</td>
<td>350</td>
<td>48</td>
<td>16,200</td>
</tr>
<tr>
<td>Bus Loading Zones 3/</td>
<td>750</td>
<td>2</td>
<td>1,500</td>
</tr>
<tr>
<td>Grasped Play Area</td>
<td>119,000</td>
<td>1</td>
<td>119,000</td>
</tr>
<tr>
<td>Apparatus Area</td>
<td>12,000</td>
<td>1</td>
<td>12,000</td>
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<tr>
<td>Paved Play Area</td>
<td>6,910</td>
<td>1</td>
<td>6,910</td>
</tr>
<tr>
<td>Toilets 4/</td>
<td>199</td>
<td>20</td>
<td>2,800</td>
</tr>
</tbody>
</table>

1/ May be substituted with convertible classrooms.
2/ Includes area for driveway.
3/ Includes area for driveway. Actual number to be determined during master plan preparation.
4/ Allowance of 100 square feet per classroom exclusive of special classroom.
The early elementary grade student occupants of the housing development will have to attend Mililani Uka Elementary School or temporary facilities provided for Mililani Iki Elementary School. The location of Mililani Uka Elementary School with relation to Mililani Iki Elementary School service area is shown in Figure 1.

The schedule from selecting a school site till occupancy of the school is:

- Complete EIS for the Selection of School Site
- Obtain Governor's Approval
- Adopt Master Plan
- Complete 1st Increment Plans
- Complete 1st Increment Construction
- Occupancy

   September 1978
   October 1978
   November 1978
   July 1979
   August 1980
   September 1980

C. Alternative Sites

1. Methodology

The alternative school sites shown in this report meet the minimum school site criteria contained in Appendix A. The school sites were first selected with consideration to State Land Use and County General Plan designations of the sites, location of the sites with respect to County parks, distances of site from school service area boundaries, location of commercial centers, traffic conditions and the schools development schedule. Further evaluations were made to ensure that the alternative sites were not located in the tsunami zone, flood zone, landslide area or State Land Use preservation district. In addition to the above, all sites were developed to meet the following:

a. Size - 6 acres minimum with an adjoining park site or 7 acres minimum.

b. Ground Slope - No greater than 15%.

c. Shape - Rectangular shape ratio no greater than 2.5 to 1.0 including adjoining park.

2. Selection

Five alternative sites were selected for consideration. The location of these sites are shown in
Figure 5 and individual sites are shown in Figures 6 through 10. The reasons for the selection of these sites are:

a. Alternative Site 1 is designated for school and park use on the County General Plan.

b. Alternative Sites 2 and 3 are located next to proposed park sites shown on the County General Plan.

c. Alternative Sites 4 and 5 are located one road mile from the boundaries of the school service area. School bus service need not be provided to students residing within a road mile from the school.

Sites abutting or fronting commercial centers and sites with poor access were avoided. Pertinent physical data relative to individual alternative sites are summarized as follows:

<table>
<thead>
<tr>
<th>Alternative Site</th>
<th>Size (Acres)</th>
<th>Next to Park</th>
<th>Cross Slope 1%</th>
<th>Shape Ratio 2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>Yes</td>
<td>2%</td>
<td>1.9:1</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>Yes</td>
<td>1%</td>
<td>1.3:1</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Yes</td>
<td>6%</td>
<td>1.6:1</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>No</td>
<td>3%</td>
<td>1.4:1</td>
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<tr>
<td>5</td>
<td>7</td>
<td>No</td>
<td>4%</td>
<td>1.5:1</td>
</tr>
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1\% Measured diagonally from highest corner across the site.  
2\% Length to width ratio includes park site.

The alternative sites are adequate in size having fair or good cross slopes and poor to good length-to-width ratios. Generally, school sites with adjoining parks have poor ratings in shape ratios.

3. Minimum Site Criteria

All of the sites were evaluated against the minimum site criteria. The items of site criteria are summarized in Table 2 and described herein as follows:

a. Size - All sites adjoining 4-acre parks are 6 acres in size. Sites without adjoining parks are 7 acres in size.
LEGEND

- One-mile distance from southernmost residence.
- One-mile distance from northernmost residence.
- Alternative Site 1 (6-acre site).
- Alternative Site 4 (7-acre site).
- Park site.

FIGURE 5

LOCATIONS OF ALTERNATIVE SITES

STATE OF HAWAII

DEPT. OF ACCOUNTING & GENERAL SERVICES

DIVISION OF PUBLIC WORKS

PLANNING BRANCH
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<tr>
<th>ITEM</th>
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<tbody>
<tr>
<td>Site is adequate in terms of size.</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Site is adequate in terms of shape.</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Site is outside of tsunami zone.</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Site is outside of landslide area.</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Site is outside of hazard zone.</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Adequate pedestrian and traffic safety.</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Adequate timing (land acquisition).</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Site located in school service area.</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Displacement of families, etc., not required.</td>
<td>Yes, Yes, Yes</td>
</tr>
<tr>
<td>Site outside of preservation district.</td>
<td>Yes, Yes, Yes</td>
</tr>
</tbody>
</table>

*Since the initial selection and rating of these sites, these ratings have changed. These changes are reflected in the detailed evaluation of this EIS.*
b. Shape - The length-to-width ratio of the sites, inclusive of one acre park area varies from 1.3:1.0 to 1.9:1.0.

c. Cross Slope - The cross slope of the sites varies from 1% to 6%.

d. Tsunami - None of the sites are in designated tsunami zones.

e. Flood - None of the sites are in designated flood zones.

f. Landslide - None of the sites are in designated landslide areas.

g. Hazard (Blast) Zone - None of the sites are in designated hazard zones.

h. Traffic - All sites are located in areas where pedestrian and traffic safety will not be jeopardized.

i. Timing - The acquisition of Alternative Site 1 is expected to be faster than the other sites because it is designated for school and park use in the General Plan which is being implemented by the developer.

j. Location - All sites are located in the school service area.

k. Displacement - Acquisition of all sites will not require the displacement of families.

l. Preservation - Historic, cultural or scenic buildings or sites will not be destroyed by the school development.

m. Conservation - All sites are designated "Urban" district under the State Land Use.

ENVIRONMENTAL SETTING

A. General

Mililani Town is considered to be one of the better planned housing developments on the island of Oahu. A golf course, shopping centers, schools and recreation centers are connected with roadways, bikeways and/or pedestrian paths. These improvements were constructed to support the existing housing population. Additional support facilities are planned to be provided with the construction of more housing units. The unique feature
of Mililani Town is the creation of a planting strip between the roadway and house lots along major streets to control vehicular access and beautify roadways. This area is being maintained by the Mililani Community Association.

The development of Mililani Town has progressed from Kipapa Drive along both sides of Kamehameha Highway incrementally towards Honolulu. The increment located between the proposed housing development and Kamehameha Highway is nearing completion. Mililani Uka Elementary School within this development was opened in September 1977.

The proposed development in which Mililani Iki Elementary School will be located is contiguous to the existing development. The land has gentle slopes and is overgrown with abandoned cane and weeds. The area will be cleared and graded to conform to the County's General Plan. The selected school site will be rough-graded under the housing development to the extent possible to minimize grading during school construction. Improvements in terms of roads, drainage, sewer, water, utilities, houses, fences, landscaping, etc., will be provided by the housing project and all services will be extended to the selected school site.

The climate at Mililani Town is cool with gentle trade-winds. The median annual rainfall approaches 40 inches.

The Bus provides public transportation to Honolulu. However, there is no local bus system. The recently completed H-2 Highway together with Kamehameha Highway provide quick and convenient vehicular travel to shopping centers in Aiea and Honolulu.

The military indicates that the proposed housing development area is not within any hazard or blast zones.

Specific items of consideration pertinent to the selection of alternative sites and a description of the environmental setting are presented below in the order shown in Appendix A, "Site Evaluation Criteria". Additional items are also covered. Discussion of items and their ratings with respect to alternative sites are provided in various subheadings.

B. School Site Criteria

1. Size - Alternative Sites 1 through 3 are 6-acre sites with adjoining 4-acre parks. Thus, their rating in terms of size are "good". Sites 4 and 5 are 7-acre sites without adjoining parks. These sites are rated "fair".
2. **Slope** - The cross slopes of Alternative Sites 1, 2 and 4 are 2%, 1% and 3%, respectively. Thus, their rating in terms of slope are "good". Sites 3 and 5 have 6% and 4% slopes, respectively. These sites are rated "fair".

3. **Shape** - The length-to-width ratio of Alternative Site 1 is in excess of 1.8 to 1.0. Thus, this site is rated "fair" in terms of shape. The ratios of Sites 2 through 5 are less than 1.7 to 1.0 and are rated "good".

4. **Foundation** - The urban land classification data for the alternative sites are shown in Figure 11 - Urban Land Classification Map and Figure 12 - Urban Land Classification Symbols. This data was taken from the University of Hawaii's Land Study Bureau Circular No. 14 - "Oahu Land Classified by Physical Qualities for Urban Usage", published in June 1969.

   Alternative Sites 1, 2 and 5 are classified I4L and I2L while Sites 3 and 4 are classified as I4L. The rating in terms of foundation for Sites 1, 2 and 5 is "fair-good" and for Sites 3 and 4, "fair". Since most of the areas of Alternative Sites 1, 2 and 5 are located in "fair" rated land, these sites are also rated "fair" under foundation.

5. **Soil** - The agricultural land classification data for the alternative sites are shown in Figure 13 - Agricultural Land Classification Map and Figure 14 - Agricultural Land Classification Symbols. This data is contained in the University of Hawaii's Land Study Bureau Bulletin No. 3 - "Detailed Land Classification - Island of Oahu", published in January 1963.

   The alternative sites are all classified as Ali and rated as "good" in terms of agricultural use.

6. **Contours** - The contours for all sites run very nearby in the east-west direction. Thus, the sites are rated "good" in terms of building alignment for ventilation and sun glare.

7. **Aesthetic Value** - The entire school service area is an abandoned sugar cane field. The area is presently overgrown with cane and weeds. The entire area will be graded as part of the housing development. All sites are rated "fair" in view of their potential of becoming beautiful campuses.
### URBAN LAND CLASSIFICATION SYMBOLS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Ground water at or near the surface. Poorly suited for development.</td>
</tr>
<tr>
<td>L</td>
<td>Ground water at or near the surface. Poorly suited for development.</td>
</tr>
<tr>
<td>W</td>
<td>Ground water at or near the surface. Poorly suited for development.</td>
</tr>
</tbody>
</table>

#### Underlying Material Code

<table>
<thead>
<tr>
<th>Material</th>
<th>C Code</th>
<th>L Code</th>
<th>W Code</th>
</tr>
</thead>
<tbody>
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<td>C1</td>
<td>L1</td>
<td>W1</td>
</tr>
<tr>
<td>Sand</td>
<td>L1</td>
<td>W1</td>
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</tr>
<tr>
<td>Gravel</td>
<td>W1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Characteristics

- **Surface Drains and Inundation:** The surface is subject to periodic or occasional flooding. This may be due to natural causes or artificial irrigation. The surface may be covered by water for short periods, especially after heavy rainfall.
- **Soil Conditions:** The soil is subject to periodic or occasional flooding, and it may be difficult to maintain proper drainage. The soil may be subject to erosion or compaction due to flooding.
- **Vegetation:** The vegetation may be subject to periodic or occasional flooding, and it may be difficult to maintain proper drainage. The vegetation may be subject to erosion or compaction due to flooding.

#### Ground Water Resemblance Within the Surface

- **Depth Code:** The depth of the ground water within the surface. The ground water may be at or near the surface, or it may be deeper, depending on the underlying material.

#### Source

Oahu Lands Classification by Physical Qualities for Urban Usage. L.S.B. Circular No. 14, Land Study Bureau, University of Hawaii.
Explanation of the Land Classification Symbol

Each land classification symbol includes a capital letter, a number, and sometimes the lower case letter "i". The capital letter refers to the Master Productivity Rating (overall agricultural suitability); the number refers to the Land Type, and the letter "i" refers to available irrigation facilities. For example, the meaning of the symbol in the map classification is as follows:

- **Master Productivity Rating (overall agricultural suitability)**
- **Land Type.** Number and letter "i" if irrigated; number only if unirrigated. (See section of text where land types are defined and rated by specific uses.)

Areas where physical use precludes agriculture are designated by the symbol "U". Examples include, but are not limited to, urban, recreational, and institutional sites.

Figure 13: Agricultural Land Classification Map

State of Hawaii © Dept. of Accounting & General Services
Division of Public Works © Planning Branch

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Table 1. Agricultural ratings of land types by selected uses and over-all suitability—Oahu

<table>
<thead>
<tr>
<th>Land Type</th>
<th>Pineapple</th>
<th>Vegetables</th>
<th>Sugar Cane</th>
<th>Forage Crops</th>
<th>Grazing</th>
<th>Orchard</th>
<th>Pasture</th>
<th>Over-all Suitability</th>
<th>Master rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

4 and 5 are Very good suitability; 3 and 4 are Good suitability; 2 and 3 are Fair to marginal suitability; 1 and 2 are Poor suitability; 0 and 1 are Very poor suitability.

Suitable for commercial forestry.

Suitable for commercial grazing.

Ratings for vegetable production apply also to cut flower production under field conditions.

Table 2. Land class ratings defined by estimated productivity of selected crops or uses.

The estimated yield ranges given below are based upon the prevailing agricultural practices given in Part II. These yield ranges are reasonable estimates of yields being obtained with the aforementioned practices. Year to year fluctuations can be expected. Some yield range figures may eventually need revision due to new or improved crop varieties, better fertilizer practices, or improved farming methods.

### Pineapples
Class a: 14 tons or more fruit per acre per year (average for plant and ratoon crops for a 4-year cycle)
Class b: 12-14 tons fruit per acre per year
Class c: 10-12 tons fruit per acre per year
Class d: 8-10 tons fruit per acre per year
Class e: Lands not suited for pineapple production

### Sugar Cane
Class a: Irrigated lands: 53 tons or more sugar per acre per month
Class b: Irrigated lands: 42-53 tons sugar per acre per month
Class c: Irrigated lands: 32-42 tons sugar per acre per month
Class d: Irrigated lands: 21-32 tons sugar per acre per month
Class e: Lands not suited for sugarcane production regardless of irrigation status

### Orchards

### Vegetables

Class a: Tomatoes over 18,000 lbs. per acre per year; carrots over 10,000 lbs. per acre per year; Irish potatoes over 7,000 lbs. per acre per year; dry beans over 17,000 lbs. per acre per year
Class b: Tomatoes 15,000-16,000 lbs. per acre per year; carrots 8,000-10,000 lbs. per acre per year; Irish potatoes 6,000-7,000 lbs. per acre per year; dry beans 15,000-17,000 lbs. per acre per year
Class c: Tomatoes 13,000-15,000 lbs. per acre per year; carrots 6,000-8,000 lbs. per acre per year; Irish potatoes 4,500-6,000 lbs. per acre per year; dry beans 13,500-15,000 lbs. per acre per year
Class d: Tomatoes under 13,500 lbs. per acre per year; carrots under 6,000 lbs. per acre per year; Irish potatoes under 4,500 lbs. per acre per year; dry beans under 13,500 lbs. per acre per year
Class e: Lands not suited for vegetable crop production

### Alfalfa

Class a: Over 9 tons hay per acre per year
Class b: 6-9 tons hay per acre per year
Class c: 4-5 tons hay per acre per year
Class d: Under 4 tons hay per acre per year
Class e: Lands not suited for alfalfa production

### Grazing Use (Pasture)

Class a: Carrying capacity less than 2.5 acres per AUL; estimated live beef gains 55 lbs. per acre per year or greater
Class b: Carrying capacity 2.5-5 acres per AUL; estimated live beef gains 30 to 55 lbs. per acre per year
Class c: Carrying capacity 5-10 acres per AUL; estimated live beef gains 15 to 29 lbs. per acre per year
Class d: Carrying capacity 10-30 acres per AUL; estimated live beef gains under 15 lbs. per acre per year
Class e: Lands not suited for grazing use

### Orchard Crops

Yields given below are based upon the assumption that irrigation is carried on as needed. Bananas are not being irrigated. Need for irrigation varies for other crops.

Class a: Oranges over 12,000 lbs. per acre per year; papayas over 25,000 lbs. per acre per year; bananas over 6,000 lbs. per acre per year
Class b: Oranges 10,000-12,000 lbs. per acre per year; papayas 20,000-25,000 lbs. per acre per year; bananas 6,000-8,500 lbs. per acre per year
Class c: Oranges 8,000-10,000 lbs. per acre per year; papayas 8,000-20,000 lbs. per acre per year; bananas 4,500-6,500 lbs. per acre per year
Class d: Oranges under 8,000 lbs. per acre per year; papayas under 8,000 lbs. per acre per year; bananas under 4,500 lbs. per acre per year
Class e: Lands not suited for orchard crop production

### Forestry

Commercial forest land: land which is producing, or is capable of producing, usable crops of wood for industrial purposes. Industrial products include sawlogs and pulpwood, but not fuel wood.

Non-commercial forest land: land which is incapable of yielding usable crops of industrial wood because of adverse site conditions.

C. **Roadway and Utilities**

1. **Roadway** - Roadways will be constructed under the housing development to provide adequate access to all alternative sites as shown in Figure 5. Thus, ratings in terms of roadway is "fair" for all sites.

2. **Water** - Mililani 865-foot reservoir and Mililani 685-foot reservoir provide water to Mililani Town. The major network for the water system will be expanded as shown in Figure 15. All sites will have adequate water supply and are thus rated "fair".

3. **Sewer** - Sewage generated at Mililani Town is treated at the Mililani Sewage Treatment Plant. The plant renders primary and secondary treatment and discharges its effluent into West Loch, Pearl Harbor via Kipapa and Waikele Streams. The major network for the sewer system shown in Figure 16 will provide service to any of five alternative sites. A two-meter water system will be considered to facilitate the determination of sewer service charge. Rating in terms of sewer is "fair" for all sites.

4. **Drainage** - The major portions of the drainage system are shown in Figure 17. A concrete lined drainage channel on the south side of the subdivision serves as a collector for several drainage outlets and empties into Kipapa Gulch. All alternative sites are rated "fair" since adequate improvements will be provided. The Drainage Section of the Division of Engineering will be consulted during the development of the drainage plan.

5. **Power and Communications** - Electrical power and telephone service will be made available to each alternative site. Thus, rating for all sites under this category is "fair".

D. **Accessibility**

1. **Pedestrian** - Alternative Site 1 will have access from three sides while Sites 2, 3, 4 and 5 will have access from two sides. Thus, Site 1 is rated "good" and Sites 2, 3, 4 and 5 rated "fair" in terms of pedestrian access.

2. **Automobile** - Alternative Sites 1, 3 and 5 will have roadways along one length and width of their property while Sites 2 and 4 will have a roadway
only along the length. Thus, their respective ratings are "good" and "fair".

3. Bus Service - The bus route is on Kamehameha Highway, about a mile away from the alternative sites. Bus service is therefore rated "poor" for all sites.

4. Traffic - Access to all alternative sites are off a through street capable of handling heavy traffic. Thus, the access are rated "fair".

5. Safety - All alternative sites are off a collector street free from blind corners, obstructions and other hazards. Adequate and safe sidewalks will be made available to all sites. The ratings for all sites are "good".

E. Environmental

1. Biological - The entire housing development area, in which the alternative sites are located, was an abandoned sugar cane field. The area has been cleared of vegetation and graded to facilitate housing development. As such, development of a school on any one of the alternative sites will not affect rare, threatened or endangered species of plants and animals or their habitat. The rating for all sites in this respect is "good".

2. Ecological Impact - Development of the school is an integral part of the proposed housing development. As such, ecological imbalance of neighboring communities is not anticipated. All sites are rated "good" with respect to this concern.

3. Air Quality - The opening of "H-2" Highway has reduced the use of Kamehameha Highway. This, coupled with the absence of industry, has maintained "good" rated air quality.

4. Highway Noise - The nearest major highway with posted speed of 35 mph is Kamehameha Highway. This highway is over 3,000 feet away from all sites. Thus, the rating for all sites is "good".

5. Aircraft Noise - The air traffic patterns for the proposed light plane airpark located between Mililani and Crestview and the existing Wheeler Air Force Base between Mililani and Wahiawa are shown in Figure 18. The proposed airpark appears to be contingent on the continued designation of the land as open space.
The noise generated by aircraft should not be a problem to any of the alternative sites since the sites are more than a mile away from the proposed aircraft traffic patterns. Thus, this category is rated "good" for all sites.

6. Rainfall - The median annual rainfall map for Oahu prepared by the Department of Land and Natural Resources is shown in Figure 19. The map indicates that the median annual rainfall for the alternative sites is slightly less than 40 inches. Thus, the rating is "fair" for all sites in this regard.

7. Industrial and Agricultural Nuisances - The rating for all sites for this item is "good" since industrial and agricultural activities are not anticipated in this area after the housing development is ultimately completed.

8. Attractive Nuisance - Alternative Sites 1 and 2 are over one quarter mile from the commercial area and thus, are rated "fair". Sites 3, 4 and 5 are closer than one quarter mile and are rated "poor".

9. Solid Waste - Solid waste will be disposed of by the State of Hawaii or private haulers at Palailai Landfill near Makakilo or at another approved site. The rating for all sites is "good".

COMMUNITY SITE CRITERIA

A. Government

1. State Land Use District Map - All alternative sites are within the "Urban District" as shown in Figure 20 and are thus, rated as "good".

2. County General Plan - A portion of the General Plan Detailed Land Use Map (DLUM) for Waipio, Ewa, Oahu, is shown in Figure 21. The DLUM designations for the alternative sites are:

<table>
<thead>
<tr>
<th>Site</th>
<th>DLUM Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>School &amp; Park</td>
</tr>
<tr>
<td>2</td>
<td>Residential &amp; School &amp; Park</td>
</tr>
<tr>
<td>3</td>
<td>Low-Density Apartment &amp; Park</td>
</tr>
<tr>
<td>4</td>
<td>Residential</td>
</tr>
<tr>
<td>5</td>
<td>Residential</td>
</tr>
</tbody>
</table>

-26-
Based on the specific use designations of the DLUM, Site 1 is rated as "good" and Sites 2 through 5 rated "fair".

3. County Zoning – The County zoning designations for the alternative sites are:

<table>
<thead>
<tr>
<th>Site</th>
<th>Zoning Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preservation</td>
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<tr>
<td>2</td>
<td>Preservation &amp; Residential</td>
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<td>3</td>
<td>Apartment &amp; Preservation</td>
</tr>
<tr>
<td>4</td>
<td>Residential</td>
</tr>
<tr>
<td>5</td>
<td>Residential</td>
</tr>
</tbody>
</table>

Based on the established criteria, Site 3 is rated "fair" and Sites 1, 2, 4 and 5, "good".

4. Shoreline Management Area – The entire housing development area is not within the boundaries of the shoreline management area. All sites are rated "good" in this respect.

5. Special Design District – The entire housing development area is not within the boundaries of the special design district. All sites are rated "good" in this respect.

B. Community Effects

1. Displacement – The housing project is in various stages of development. Site 1 is vacant because it is designated for school use in the General Plan and zoning map. Site 2 is under construction and will have occupants residing in that area by mid-September 1978. Site 3 is currently under design for a single-family project and is scheduled to commence construction in December 1978. Sites 4 and 5 are totally built, sold and occupied. Thus, Alternative Site 1 is rated as "good", Alternative Site 3 "fair", and Alternative Sites 2, 4 and 5 "poor".

2. Interference with Institutions – All alternative sites are located farther than a half mile away from community institutions that may be disturbed by large groups of students. Thus, all sites are rated "good".

3. Agriculture – All alternative sites are located on land with good productivity rating. All sites are
rated "poor" since the school will remove good agricultural land. However, it should be noted that the lands have been zoned for urban usage by the State Land Use Commission.

4. Existing Use - Alternative Sites 1 and 3 are vacant and the remaining sites are considered to be built with houses and/or occupied. See Item B.1. Displacement. Thus, Alternative Sites 1 and 3 are rated "good" and all other sites "poor".

5. Traffic - The alternative sites are located such that less than 50% of the morning work-bound traffic from the service area coincides with the school-bound traffic. All sites are rated "poor".

6. Land Owners - Alternative Sites 1 and 3 are owned by one corporation and the other sites are owned by various owners. Thus, Alternative Sites 1 and 3 are rated "fair" and the remaining sites "poor". See Item B.1. Displacement.

7. Natural Beauty - The entire housing development area in which the alternative sites are located will be cleared and graded. Development of any of the sites for the school is not expected to hinder scenic vistas. All sites are rated "good" in this respect.

8. Location - Sites 1, 2, 4 and 5 will not require school bus service since it is located within one road mile from the extremities of the school service area. Site 3 will require minimal bus service for students residing at the southern end of the school service area. All sites are rated "good" since 75% of the students will be residing within reasonable walking distance of 3/4 mile.

C. Cost Consideration

The project comparative cost computations for the sites are contained in Appendix B and are summarized as follows:

<table>
<thead>
<tr>
<th>Alternative Site</th>
<th>Estimated Project Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$3,610,000</td>
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<tr>
<td>2</td>
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<td>3</td>
<td>$3,864,000</td>
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<tr>
<td>4</td>
<td>$6,550,000</td>
</tr>
<tr>
<td>5</td>
<td>$6,550,000</td>
</tr>
</tbody>
</table>
PROBABLE IMPACTS

A. Social

1. Public Safety – Public safety will not be jeopardized during and after construction of the school in any one of the five alternative sites with adherence to good engineering and construction practices.

2. Neighborhood Character – The character of neighboring communities is not expected to be altered with construction of the school at any one of the alternative sites. The character of the neighboring communities will be altered in terms of overcrowding of existing schools and possibly the transporting of students to other school districts if the school is not constructed.

3. Education – Construction of the school will provide and maintain equal educational opportunities to students of the proposed housing development and neighboring communities. Neighboring schools are expected to be overcrowded if this school is not constructed.

B. Economics

1. Employment – Employment will be generated for work necessary to design and construct the school facilities. Additional teachers are not expected to be required in terms of total statewide employment since teachers will be relocated to this school from areas of declining enrollment. However, additional administrative and janitorial staff are expected to be hired for the operation of this school.

2. Project Cost – The project costs based on constructing the entire school at projected bid opening of March 1979 are estimated as follows:

   Alternative Site 1 – $3,610,000
   Alternative Site 2 – $6,040,000
   Alternative Site 3 – $3,864,000
   Alternative Sites 4 & 5 – $6,550,000

The higher cost attributed to Site 2 is due to developed land acquisition and tenant relocation; the higher cost for Site 3 is due to steeper ground slopes and damages for plans and other work
prepared by the developer; and the higher costs for Sites 4 and 5 are due to developed land acquisition, tenant relocation and construction of playfield and play facilities.

3. School Busing - Alternative Site 3 will require school bus service whereas the other alternatives will not require this service since all students within the service area will reside within a mile from the school site.

4. Property Tax - Alternative Sites 1, 2 and 3 will require the removal of 6 acres from the property tax base and Alternative Sites 4 and 5, 7 acres from the tax base. However, development of the school may increase the value of properties within the school service area to offset somewhat the loss due to withdrawal of the school site from the tax base.

C. Environmental

1. Noise and Dust Pollutions - Noise and dust pollutions will be generated during construction of the school. These will be temporary and controlled in accordance with the Department of Health and County regulations.

2. Sitework - Major grading of the school site will be performed under the housing development. Thus, site grading for the construction of the school is expected to be minimal.

3. Drainage - Major drainage work will be provided under the housing project with the capability of receiving school site storm runoff. Thus, development of the school site drainage system is not expected to be a problem.

4. Land Use - The State Land Use Boundary Map, County General Plan (DLUM) and County zoning designations permit construction of the school in all of the five alternative sites.

5. Traffic - There will be a concentration of traffic at the school during start and end of the school day. Traffic condition at this school is expected to be no worse than traffic condition of other existing schools.

D. Trade-offs

1. Short-Term Losses or Gains - The possible short-term effects of air, water and noise pollutions
from development of school on man's environment is considered to be of minor consequence in comparison to the long-term benefits that will be gained by the community.

2. Long-Term Risks - Long-range projections of elementary school student populations of the service area and adjacent areas are not certain. Thus, there is a possibility that student population may decline to the extent that the school may not be required. However, the State cannot forego its obligation of providing equal and adequate educational opportunities to the children of Hawaii.

3. Future Options - If student enrollment declines to a point where the school is not required, the school facilities may be used for other governmental programs, sold to the public for housing development or used for other options that the future may dictate.

E. Commitment of Resources

1. Labor - This project will commit labor for the construction and operation of the school. Labor will be irreversible.

2. Material - Materials used for the construction of the school which cannot be economically recycled are considered to be irreversible commitments of resources.

3. Land - The land can be used for programs other than educational program.

4. Cultural - The anticipated cultural benefits that the school will have on its immediate and surrounding communities cannot be measured. Its effects on individuals are expected to last a lifetime and are expected to benefit the State of Hawaii.

F. Adverse Effects

The school will commit from 6 to 7 acres of undeveloped land for urban use and is unlikely to be restored to its natural state. However, the school is being provided to support the proposed housing development and the higher use of land is unavoidable. Thus, this action is not deemed to have a major adverse impact on the environment.

Some minor adverse impacts such as noise, dust and water pollutions will occur during the construction of the school. These will be temporary and will be strictly controlled in accordance with applicable State and County regulations.
Some long-term adverse impacts are traffic congestion; consumption of water, gas and electricity; and generation of noise pollution and solid waste. These adverse effects will be created at other schools which these students must attend if the school is not constructed.

G. Mitigation Measures

This project will adhere to all governmental and utility rules and regulations. The requirements applicable to this project appear to be similar to those associated to other school projects.

EVALUATION OF ALTERNATIVES

A. General

The site evaluation criteria established for elementary schools are shown in Appendix A. The alternative sites were evaluated on these items together with additional items under environmental setting and are summarized in Table 3.

B. Evaluation

The overall rating and comparative cost of the alternative sites are shown in Tables 3 and 4, respectively.
**TABLE 3**

**SUMMARY OF EVALUATION**

<table>
<thead>
<tr>
<th>SCHOOL SITE CRITERIA</th>
<th>ALTERNATIVE SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
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<tr>
<td>A. Site Characteristics</td>
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</tr>
<tr>
<td>1. Size</td>
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<td>2. Slope</td>
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<td>3. Shape</td>
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<td>6. Contours</td>
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<td>7. Aesthetics</td>
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<td>B. Roadways &amp; Utilities</td>
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<td>1. Roadway</td>
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<td>5. Aircraft Noise</td>
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<tr>
<td>6. Rainfall</td>
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<td>7. Indus. &amp; Agric. Nuisances</td>
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<tr>
<td>8. Attractive Nuisances</td>
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<tr>
<td>9. Solid Waste</td>
<td>G</td>
</tr>
<tr>
<td><strong>TOTALS:</strong> Good</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMMUNITY SITE CRITERIA</th>
<th>ALTERNATIVE SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>A. Government</td>
<td></td>
</tr>
<tr>
<td>1. State Land Use District</td>
<td>G</td>
</tr>
<tr>
<td>2. County General Plan</td>
<td>F</td>
</tr>
<tr>
<td>3. Zoning</td>
<td>G</td>
</tr>
<tr>
<td>4. Shoreline Management</td>
<td>G</td>
</tr>
<tr>
<td>5. Special Design District</td>
<td>G</td>
</tr>
<tr>
<td>B. Community Effects</td>
<td></td>
</tr>
<tr>
<td>1. Displacement</td>
<td>G</td>
</tr>
<tr>
<td>2. Interference w/Institutions</td>
<td>G</td>
</tr>
<tr>
<td>3. Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>4. Existing Use</td>
<td>G</td>
</tr>
<tr>
<td>5. Traffic</td>
<td>P</td>
</tr>
<tr>
<td>6. Land Owners</td>
<td>G</td>
</tr>
<tr>
<td>7. Natural Beauty</td>
<td>G</td>
</tr>
<tr>
<td>8. Location</td>
<td>G</td>
</tr>
<tr>
<td><strong>TOTALS:</strong> Good</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
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</table>

-36-
### Table 4

#### Summary of Project Cost

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST FOR ALTERNATIVES ($1,000)</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
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<tr>
<td>Land Acquisition</td>
<td>150</td>
</tr>
<tr>
<td>School Construction</td>
<td>3082</td>
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<td>Contingency</td>
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<tr>
<td>Design</td>
<td>176</td>
</tr>
<tr>
<td>Inspection</td>
<td>65</td>
</tr>
<tr>
<td>Landscape &amp; Works of Art</td>
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</tr>
<tr>
<td>Bus Subsidy</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL COSTS</strong></td>
<td>3610</td>
</tr>
</tbody>
</table>
APPENDIX A

Site Evaluation Criteria
SITE EVALUATION CRITERIA

GENERAL

Criteria for this school were established as ideal standards with which to evaluate each of the alternative sites. All prospective school sites, however, should meet certain minimum criteria as established by the Department of Education (DOE) and the Department of Accounting and General Services (DAGS). Sites not meeting the minimum criteria will be eliminated from further consideration unless they are shown on the County General Plan.

Only sites meeting the minimum site criteria and sites designated on the County General Plan will be evaluated against the school and community site criteria. The school and community site criteria ratings will be considered in the analysis and recommendation of a specific school site.

MINIMUM SITE CRITERIA

A. Size: The site must contain enough usable land to meet the DOE requirements. Minimum size requirement for Mililani Iki Elementary School is 6 acres.

For purposes of selecting school sites, the table below is used as an approximate guide to determine usable land area:

<table>
<thead>
<tr>
<th>Slope of Land</th>
<th>Percentage of Total Area Considered Usable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 9%</td>
<td>100%</td>
</tr>
<tr>
<td>9% - 15%</td>
<td>90%</td>
</tr>
<tr>
<td>Over 15%</td>
<td>0% (Not Usable)</td>
</tr>
</tbody>
</table>

B. Shape: The length-to-width ratio of the site must not exceed 2.5 to 1. Higher length-width ratios severely restrict the design flexibility of the complex and placement of facilities in their optimum arrangement.

C. Tsunami: The site must not be in a tsunami inundation zone as established by the Tsunami Research Center of the Hawaii Institute of Geophysics.

D. Flood: The site must not be in a major flood plain exposed to excessive storm water runoff if adequate drainage provisions, i.e. culverts, lined channels, etc., cannot be made at a reasonable cost.
E. Landslide: The site must not be located within a known or potential landslide area.

F. 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.

G. Timing: The acquisition of the site must be possible early enough to allow enough construction time to meet DOE's scheduled school opening date.

H. Location: The site must be within the ultimate service area.

I. Displacement: The site must be obtained without the relocation of ten or more families.

J. Preservation: The development must be such that no historic, cultural, or scenic buildings or sites will be destroyed.

K. Conservation: The site must not be located in a State Land Use Conservation District.

SCHOOL SITE CRITERIA

A. Site Characteristics

1. Size:
   a. Good - The site is the minimum size because an adjacent park will be used to meet the school's playground requirements.
   b. Fair - The site is the requested size.
   c. Poor - The site is larger than the requested size because of slope or other considerations.

2. Slope: Computed by analyzing the overall slope of the site and taking an average.
   a. Good - The average slope of the site is between 1 and 3%.
   b. Fair - The average slope of the site is between 3 and 10%.
   c. Poor - The average slope of the site is greater than 10%.

3. Shape: The shape should generally be rectangular.
   a. Good - Length:width ratio 1.0:1.0 to 1.7:1.0.
b. Fair - Length-width ratio 1.8:1.0 to 2.0:1.0.
c. Poor - Length-width ratio 2.1:1.0 to 2.5:1.0.

   a. Good - Soil Character Code I, II, VIII, and IX.
   b. Fair - Soil Character Code III, IV, VI, and VII.
   c. Poor - Soil Character Code V with depth to consolidated material of 15 feet or less.

5. Soil
   a. Good - The site is composed of non-rocky soil with a depth over 10 feet or coral or rocky soil with a depth over 15 feet.
   b. 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.
   c. Poor - The site is composed of (1) non-rocky soil with a 0 to 5-foot depth or (2) coral or rocky soil with a depth less than 11 feet or (3) marshy soil or (4) lava.

6. Contours - Alignment for ventilation and sun glare.
   a. Good - The alignment of the contours falls within 22.5° of the east-west direction or the slope is 3% or less.
   b. Fair - The alignment of the contours falls within 22.5° of the north-south or northwest-southeast direction.
   c. Poor - The alignment of the contours falls within 22.5° of the northeast-southwest direction.

7. Aesthetic Value:
   a. 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.
   b. Fair - The site lacks most of the desirable natural beauty but still has the potential of
becoming a beautiful campus through proper landscaping. The site is not crossed by overhead lines.

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

B. Roadway and Utilities

1. Roadway:

a. Good - The site has adequate roadways to meet the ultimate school needs.

b. Fair - The site will have adequate roadways which will be developed or require some widening to serve the interim and ultimate needs of the school.

c. Poor - The site has no roadways and will require the construction of a roadway system to specifically meet the school needs.

2. Water:

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

b. Fair - The existing water service is insufficient but adequate service is being developed which will meet the interim and ultimate needs of the school.

c. Poor - The site has inadequate water service and will require the development or extension of a water system to specifically meet the school needs.

3. Sewer:

a. Good - The site has adequate sewer lines available to meet the ultimate school needs.

b. Fair - The site will have adequate sewer service which is being developed to serve the interim and ultimate needs of the school.

c. Poor - The site has no sewer service and will require the construction of cesspools or a sewage treatment plant to meet the school needs.
4. Drainage:
   a. Good - The site has adequate drainage facilities available to meet the ultimate school needs.
   b. Fair - The site will have adequate drainage facilities which are being developed to serve the interim and ultimate needs of the school.
   c. Poor - The site has no drainage facility and may require the development of a drainage system to specifically meet the school needs.

5. Power and Communications:
   a. Good - The site has adequate existing power and communications available to meet the ultimate school needs.
   b. Fair - The site will have adequate power and communications which are being developed to serve the interim and ultimate needs of the school.
   c. Poor - The site has insufficient power or communications available and will require improvement on these services to serve the school needs.

C. Accessibility

1. Pedestrian:
   a. Good - The site will have pedestrian access from three sides.
   b. Fair - The site will have pedestrian access from two sides.
   c. Poor - The site will have pedestrian access from only one side.

2. Automobile:
   a. Good - The site will have roadways along one short side and one long side.
   b. Fair - The site will have roadways along one long side or two short sides.
   c. Poor - The site will have a roadway only along one short side.
3. **Bus Service:**
   a. Good - The site is served by a major bus line running through the service area.
   b. Fair - A major bus line passes within reasonable (0.5 mile) distance of the site.
   c. Poor - No bus service is available.

4. **Traffic:**
   a. Good - The site is off a major roadway passing through the service area.
   b. Fair - Access to the site is via a through street capable of handling the heavy traffic at school opening and closing hours.
   c. Poor - Access to the site is via a dead end street.

5. **Safety:**
   a. Good - The main access to the site is through an improved collector street free of blind corners, obstructions, and other hazards. Adequate and safe walkways to the site are available.
   b. Fair - A main access free of hazards and safe walkways to the site will be provided.
   c. Poor - Access to the site is via a high speed, heavily traveled highway or a roadway with blind curves, obstructions, and other hazards. Walking to school is hazardous under existing roadway or traffic conditions.

D. **Environment**

1. **Biological**
   a. Good - There are no rare, threatened or endangered species of plants and/or animals or their habitat on or adjacent to the project site.
   b. Fair - There are rare, threatened or endangered species of plants and/or animals or their habitat on land adjacent to the project site.
   c. Poor - There are rare, threatened or endangered species of plants and/or animals or their habitat on the project site.
2. Ecological Impact:
   a. Good - The project will not be detrimental to the community it is to serve and to neighboring communities.
   b. Fair - The project will not be detrimental to the community it is to serve but may have a negative effect on neighboring communities.
   c. Poor - The project will have an negative effect on the community in which it is constructed and its neighboring communities.

3. Air Quality:
   a. Good - The levels of carbon monoxides, hydrocarbons and/or nitrogen oxides at the school site will not exceed the standards and levels established by the U.S. Environmental Protection Agency (EPA).
   b. Fair - The levels of carbon monoxides, hydrocarbons and/or nitrogen oxides at the school site may occasionally exceed the standards and levels established by the EPA.
   c. Poor - The levels of carbon monoxides, hydrocarbons and/or nitrogen oxides at the school site will occasionally exceed the standards and levels established by the EPA.

4. Highway Noise:

   Major Highway - A highway with posted speed limits of 35 mph or more.

   Freeway - A controlled access highway with posted speed limits of 45 mph or more.

   Truck Route - A roadway designated as such by the Department of Health.

The measured distance to be used in the application of the Highway Noise Criteria shall be the distance from the center of the traffic lane closest to the alternative site to the building setback line of the site.

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

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

5. Aircraft Noise:

a. Good - The site is more than a mile away from the normal aircraft flight patterns into and out of airports and air bases.

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

c. Poor - The site is directly under (0 to 0.5 mile) the approach and takeoff patterns.

6. Rainfall:

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

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

c. Poor - The site has a median annual rainfall greater than 40".

7. Industrial and Agricultural Nuisances:

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

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

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

8. Attractive Nuisances:

a. Good - The site is more than a half mile from those commercial enterprises (bowling alleys, pool halls, stores, etc.) that may attract students during school hours.
b. Fair - The site is reasonably far (0.25 to 0.5 mile) from distracting commercial centers.

c. Poor - The site is within a quarter mile of undesirable commercial enterprises.

9. Solid Waste:

a. A solid waste disposal system operated by the State, County or private concern is available to serve the project site.

b. Existing solid waste disposal services is not available to serve the project site, but an approved land fill area is available to receive solid waste.

c. Existing solid waste disposal services is not available to serve the project site and an approved landfill area to receive solid waste is not available within reasonable distance from the project site.

COMMUNITY SITE CRITERIA

A. Government

1. State Land Use District Map:

a. Good - The site is within an Urban District.

b. Fair - The site is within a Rural District.

c. Poor - The site is in an Agricultural or Conservation District.

2. County General Plan:

a. Good - The site is designated for school and park.

b. Fair - The site is designated for low or medium density residential.

c. Poor - The site is designated for resort, conservation, industrial, agricultural, or open space.

3. County Zoning:

a. Good - The site is zoned residential or preservation.
b. Fair - The site is zoned agricultural.

c. Poor - The site is zoned hotel, commercial, resort-hotel, industrial, or open.

4. Shoreline Management Area:

a. Good - The project site is not located within the boundaries of shoreline management area (SMA).

b. Fair - The project site is located within the boundaries of the SMA. However, the requirements of the SMA will not cause any design problems.

c. Poor - The project site is located within the boundaries of the SMA and the requirements of the SMA will present design problems.

5. Special Design District:

a. Good - The project site is not located within the boundaries of Special Design District (SDD).

b. Fair - The project site is located within the boundaries of the SDD; however, the requirements of the SDD will not cause design problems.

c. Poor - The project site is located within the boundaries of the SDD and the requirements of the SDD will present design problems.

B. Community Effects

1. Displacement:

a. Good - The site may be acquired without relocating any family, farm, or business.

b. Fair - The site may be acquired without relocating any farm or business or more than five families and living units.

c. Poor - The site cannot be acquired without the relocation of farms, businesses, or more than five families.

2. Interference with Institutions:

a. 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.
b. 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 school will be minimal.

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

3. Agriculture: University of Hawaii Land Study Bureau Agricultural Land Classification Productivity Rating.

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

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

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

4. Existing Use: In changing the existing use of the site to school use, there should be a minimum amount of disruption to the existing pattern of living of the community.

   a. Good - The site is vacant and unused.

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

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

5. Traffic:

   a. Good - The site is located such that 80% of the morning work-bound traffic from the service area coincides with the school-bound traffic.

   b. Fair - The site is located such that 70% of the morning work-bound traffic from the service area coincides with the school-bound traffic.

   c. Poor - The site is located such that less than 60% of the morning work-bound traffic from the service area coincides with the school-bound traffic.
6. **Land Owners:**
   
a. Good - The site is entirely owned by the Federal, State, or County government.

b. Fair - The site is owned by less than three individuals or business corporations.

c. Poor - The site is owned by three or more individuals or business corporations.

7. **Natural Beauty:**
   
a. Good - The site is not an aesthetic asset to the community and will not interfere with scenic vistas when it is developed into a school.

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

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

8. **Location:**
   
a. Good - The site is within reasonable walking distance (0.75 mile) of 75% of the students.

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

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

Cost Computations
COST COMPUTATIONS

GENERAL

The costs associated with facilities, land acquisition, site development and bus subsidy for each of the alternative sites are of major concern in site selection studies. The cost to construct school facilities is related to site size, slope and shape in addition to its location relative to a County park. These site characteristics are important in keeping cost down. Cost savings are realized with adjoining parks because outdoor facilities need not be duplicated by the school and the school site can be reduced in size. Six acres are required for schools adjoining parks and seven acres are required for schools without adjoining parks. Thus, land acquisition and site development costs are also reduced. The estimated project costs for the alternative sites are summarized in Table B-1 and the estimated construction costs are computed in Table B-2.

LAND ACQUISITION

The developer will donate the raw land for the school site to the State of Hawaii in accordance with condition set by the State Land Use Commission. Accordingly, there will be no land acquisition cost per se to the State of Hawaii. However, the State has agreed with the developer to pay pro rata share for site development costs not to exceed $25,000 per acre. Although site development cost is discussed separately, this cost will be treated as land acquisition during purchase and the acquisition will require an appraisal and title search for the transfer of land ownership to the State. This arrangement will be applicable only to Alternative Sites 1 and 3 because Alternative Sites 2, 4 and 5 will be built with houses before land acquisition can be initiated by the State. The status of development of Alternative Sites are:

Alternative Site 1: This site will be kept vacant since the site is designated for school use under the County General Plan and the site is zoned Preservation.

Alternative Site 2: This site is under construction and is scheduled for occupancy in September 1978.

Alternative Site 3: This site is under design and construction and is scheduled to begin in December 1978.

Alternative Site 4: This site is totally built and the houses are sold and occupied.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4 &amp; 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Construction Cost</td>
<td>$2,340,000</td>
<td>$2,340,000</td>
<td>$2,340,000</td>
<td>$2,340,000</td>
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<tr>
<td>Additional Construction Cost</td>
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<td>300,000</td>
<td>300,000</td>
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<td>Equipment Cost</td>
<td>50,000</td>
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<td>50,000</td>
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</tr>
<tr>
<td>Construction Cost (Mon. 7/76)</td>
<td>$2,630,000</td>
<td>$2,630,000</td>
<td>$2,690,000</td>
<td>$2,690,000</td>
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<td>Time Factor (0.172)</td>
<td>452,000</td>
<td>452,000</td>
<td>463,000</td>
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<tr>
<td>Construction Cost (Mon. 3/79)</td>
<td>$3,082,000</td>
<td>$3,082,000</td>
<td>$3,153,000</td>
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<tr>
<td>Land Acquisition</td>
<td>150,000</td>
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<tr>
<td>Damages</td>
<td>-0-</td>
<td>-0-</td>
<td>150,000</td>
<td>-0-</td>
</tr>
<tr>
<td>Tenant Relocation and Demolition</td>
<td>-0-</td>
<td>300,000</td>
<td>-0-</td>
<td>350,000</td>
</tr>
<tr>
<td>Contingency</td>
<td>66,000</td>
<td>66,000</td>
<td>69,000</td>
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<td>Design</td>
<td>176,000</td>
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<td>179,000</td>
<td>179,000</td>
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<tr>
<td>Inspection</td>
<td>65,000</td>
<td>65,000</td>
<td>66,000</td>
<td>66,000</td>
</tr>
<tr>
<td>Works of Art &amp; Landscaping</td>
<td>71,000</td>
<td>71,000</td>
<td>73,000</td>
<td>73,000</td>
</tr>
<tr>
<td>Bus Subsidy</td>
<td>-0-</td>
<td>-0-</td>
<td>24,000</td>
<td>-0-</td>
</tr>
<tr>
<td>ESTIMATED PROJECT COST (Mililani 3/79)</td>
<td>$3,610,000</td>
<td>$6,760,000</td>
<td>$3,864,000</td>
<td>$7,390,000</td>
</tr>
</tbody>
</table>
**TABLE D-2**

**CONSTRUCTION COST**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>2,990 s.f.</td>
<td>$52.50</td>
<td>$156,975</td>
</tr>
<tr>
<td>Library</td>
<td>4,610 s.f.</td>
<td>$42.00</td>
<td>$193,260</td>
</tr>
<tr>
<td>Serving Kitchen</td>
<td>5,030 s.f.</td>
<td>$53.00</td>
<td>$54,590</td>
</tr>
<tr>
<td>Dining/Multi-Purpose</td>
<td>4,310 s.f.</td>
<td>$41.50</td>
<td>$178,865</td>
</tr>
<tr>
<td>Regular CR (27)</td>
<td>25,920 s.f.</td>
<td>$38.00</td>
<td>$984,960</td>
</tr>
<tr>
<td>Art CR</td>
<td>1,200 s.f.</td>
<td>$39.50</td>
<td>$47,400</td>
</tr>
<tr>
<td>Music CR</td>
<td>1,200 s.f.</td>
<td>$44.00</td>
<td>$52,800</td>
</tr>
<tr>
<td>Science CR</td>
<td>1,200 s.f.</td>
<td>$43.50</td>
<td>$52,200</td>
</tr>
<tr>
<td>Special Education CR</td>
<td>1,050 s.f.</td>
<td>$39.00</td>
<td>$40,950</td>
</tr>
<tr>
<td>Teachers Workroom</td>
<td>1,200 s.f.</td>
<td>$39.00</td>
<td>$46,800</td>
</tr>
<tr>
<td>Toilet</td>
<td>2,800 s.f.</td>
<td>$54.00</td>
<td>$151,200</td>
</tr>
<tr>
<td>Parking (48) &amp; Bus Loading (2)</td>
<td>17,700 s.f.</td>
<td>$2.00</td>
<td>$35,400</td>
</tr>
</tbody>
</table>

**Sitework CR**

| Administration | 2,990 s.f. | $8,000.00 | $248,000 |
| Library        | 4,610 s.f. | $6.50     | $19,435  |
| Cafetorium     | 5,340 s.f. | $10.00    | $53,400  |

**SUBTOTAL FOR ALL ALTERNATIVE SITES**

SAY $2,340,000

**ADDITIONAL COSTS FOR ALTERNATIVE SITES**

| Sites 1 & 2 | 6 acres @ $40,000/acre | $240,000 |
| Site 3      | 6 acres @ $50,000/acre  | $300,000 |

| Sites 4 & 5 | 7 acres @ $40,000/acre  | $280,000 |
| 6,910 s.f. paved play area @ $2/s.f. | $13,820 |
| 12,000 s.f. apparatus area @ $0.50/s.f. | $6,000 |

**Subtotal for Sites 4 & 5**

SAY $299,820

**Say** $300,000
Alternative Site 5: This site is totally built and the houses are sold and occupied.

Land acquisition cost will be based on $25,000 per acre or $150,000 for Alternative Sites 1 and 3.

Land acquisition cost for sites developed with houses is estimated at $500,000 per acre. Thus land acquisition cost is estimated at $3,000,000 for Site 2 and $3,500,000 for Site 4 or 5.

Sites 2, 4 and 5 will also incur relocation and demolition costs. In the absence of specific data, relocation cost is estimated at $30,000 per acre and demolition at $20,000 per acre. On this basis, relocation would be $180,000 for Site 2 and $210,000 for Sites 4 and 5 while demolition would be $120,000 for Site 2 and $140,000 for Sites 4 and 5.

Acquisition of Site 3 will incur damages for design plans and other work that may have been performed. Cost of damages for Site 3 is estimated at $150,000.

BUS SUBSIDY

An allowance for bus transportation is provided to students residing one road mile or farther from the school. Road measurement of Figure 5 shows that Alternative Site 3 will require bus subsidy. The number of students requiring bus subsidy is estimated in Table B-3 and the present worth cost is computed as follows:

<table>
<thead>
<tr>
<th>Alternative Site</th>
<th>No. of Housing Units</th>
<th>a/ Factor</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>33 SFD</td>
<td>0.35</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
</tbody>
</table>

\(a/\) From Department of Education
Annual Bus Subsidy Cost

\[ S_n = N \times P = \text{bus subsidy cost in nth year} \]

Where: \( N = \text{number of students riding the bus} \)

\( P = \text{present annual bus subsidy cost of } $176/\text{student} \)

based on data provided by DACS Central Services Division

Present Worth of Annual Bus Subsidy Cost

\[ PW_T = PW_1 + PW_2 + \ldots + PW_n \]

Where: \( PW_n = S_n(PSi-n) = \text{present worth of annual bus subsidy} \)

\( S_n = \text{annual bus subsidy cost for nth year as computed above} \)

\( (PSi-n) = \text{single payment present worth factor from} \)

engineering economy tables

\( i = \text{interest rate used for Hawaii} \)

\( n = \text{nth year back to present} \)

Then: \( PW_n = N \times (PSi-n) = 176N(PSi-n) \)

Therefore: \( PW_T = PW_1 + PW_2 + \ldots + PW_{20} \)

\[ = 176N(PSi-1 + PSi-2 + \ldots + PSi-20) \]

\[ = 2019N \]

Where: \( T = 20-\text{year period} \)

\( N = \text{number of riders} \)

\( i = 6\% \)

The present worth of the bus subsidy for each of the alternative sites is tabulated in Table B-4.
<table>
<thead>
<tr>
<th>Site No.</th>
<th>Bus Subsidy</th>
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<tbody>
<tr>
<td>1</td>
<td>$P_{WT} = 0$</td>
</tr>
<tr>
<td>2</td>
<td>$P_{WT} = 0$</td>
</tr>
<tr>
<td>3</td>
<td>$P_{WT} = ($2019)(12) = 24,000$</td>
</tr>
<tr>
<td>4</td>
<td>$P_{WT} = 0$</td>
</tr>
<tr>
<td>5</td>
<td>$P_{WT} = 0$</td>
</tr>
</tbody>
</table>
APPENDIX C

Inquiries and Responses
Pre-Consultation Phase
Mr. George Moriuchi
Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Moriuchi:

Subject: Preservation District Use Regulation

This is to request your determination on whether construction of a public school is permitted in "Preservation District" zoned land. If so, would you recommend that we request rezoning of the land or a waiver from the building setback and building height restrictions imposed on "Preservation District" zoned lands?

Item (a) under "Principal uses and structures" on page 71 of the CIC reads as follows: "Parks, recreation areas, botanical and zoological gardens, golf courses, marinas and other public buildings and uses." Similar descriptions with the term "other public buildings and uses" in addition to specific identification of elementary, intermediate and high schools are provided under residential, apartment and other district zones.

In view of this difference, we are not certain if the intent of the CIC is to permit construction of public schools in "Preservation District" zoned lands. We would appreciate your early response to the above items. If there are any questions, please have your staff contact Mr. Henry Yasuda of the Planning Branch at 643-5942.

Very truly yours,

RUKI HISHINUMA
State Public Works Engineer

August 9, 1977

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

Division of Public Works

ATTENTION: Mr. Nikio Mishikawa
State Public Works Engineer

Gentlemen:

Preservation District Use Regulation
Your Letter No. (P) 1775.7

Thank you for your letter of August 1, 1977, concerning the Preservation District use regulations. We have the following comments relating to your questions:

1. Public schools are permitted uses in the P-1 District as "other public building and uses."

2. Waiver requests for specific schools would be recommended rather than rezoning.

Should you have any further questions on this matter, please contact Mr. Jack Gilliam of our staff at 523-4256.

Very truly yours,

WAILEY
Acting Director

NY1975
State of Hawaii  
Department of Accounting and General Services  
Division of Public Works  

LETTER NO. (D)1612.7  
JUN 9 1977  

Department of the Navy  
Pacific Division  
Naval Facilities Engineering Command  
Makalapa, Hawaii  
FPO San Francisco  96610  

Gentlemen:  

Subject: Millenai Iki Elementary School  

We are preparing an Environmental Impact Statement for the selection of Millenai Iki Elementary School site and are in need of your assistance.  

We request your verification that the alternative sites shown on the enclosed maps are not sited on underground fuel or ammunition storage facilities and are not located in any hazard or blast zone.  

If there are any questions, please call Mr. Henry Yasuda of the Planning Branch at 548-3742.  

Very truly yours,  

M. K. Nishioaka  
State Public Works Engineer  

BY:  
Attachment  

Mr. Rikio Nishioaka  
Public Works Engineer  
Division of Public Works  
Department of Accounting and General Services  
P.O. Box 119  
Honolulu, Hawaii 96610  

Dear Mr. Nishioaka:  

Your letter (D)1612.7 of 9 June 1977 has been forwarded to this headquarters by the Pacific Division, Naval Facilities Engineering Command for response.  

There are no Navy generated constraints on the proposed site for Millenai Iki Elementary School.  

Sincerely,  

M. K. Nishioaka  

Copy to:  
Commandant  

Copy to:  
CONTRNAV PACENGCOH
Major General Thomas U. Green
U.S. Army Command
Department of the Army
Headquarters U.S. Army Support Command Hawaii
APO San Francisco 96558

Dear General Greer:

Subject: Mililani Iki Elementary School

We are preparing an Environmental Impact Statement for the selection of Mililani Iki Elementary School site and are in need of your assistance.

We request your verification that the alternative sites shown on the enclosed maps are not sited on underground fuel or ammunition storage facilities and are not located in any hazard or blast zone.

If there are any questions on our request, please have your staff contact Mr. Henry Yasuda of the Planning Branch at 548-5742.

Very truly yours,

REIKO NISHIOKA
State Public Works Engineer

Mr. Reikio Nishioka
State Public Works Engineer
Department of Accounting and General Services
Division of Public Works
State of Hawaii
P.O. Box 110
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Reference is made to your letter of June 9, 1977, subject: Mililani Iki Elementary School, addressed to General Greer of this headquarters.

General Greer has asked me to respond to your letter wherein you request verification that the proposed alternate sites of the Mililani Iki Elementary School are not sited on underground fuel or ammunition storage facilities and are not located in any hazard or blast zone.

This is to inform you that the proposed alternate sites are located adjacent to the Army's inactive Wahiawado Ammunition Storage Site and, as stated, this installation is in an inactive status with no ammunition or explosives stored therein. However, I suggest that coordination be made with the Air Force as the underground fuel pipeline traversing somewhere in the vicinity is under the jurisdiction of the Air Force.

Sincerely yours,

CARL P. ROCHOLPH
Colonel, USAF
Director of Facilities Engineering
Colonel Howard O'Neal  
Base Commander  
15th AMW/CC  
AFB San Francisco  
96533

Dear Colonel O'Neal:

Subject: Mililani Iki Elementary School

We are preparing an Environmental Impact Statement for the selection of Mililani Iki Elementary School site and are in need of your assistance.

We request your verification that the alternative sites shown on the enclosed maps are not sited on underground fuel or ammunition storage facilities and are not located in any hazard or blast zone.

If there are any questions on our request, please have your staff contact Mr. Henry Yasuda of the Planning Branch at 648-5742.

Very truly yours,

[Riho Nishijima]
State Public Works Engineer

NY:jet
Attachment
APPENDIX D

Review Comments and Responses
Consultation Phase
CONSULTATION WITH OTHER AGENCIES
LETTER OF INQUIRY DATED MARCH 22, 1978

<table>
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<tr>
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<td>Environmental Protection Agency</td>
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<td>Headquarters 14th Naval District</td>
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<td>COMMUNITY AND OTHERS</td>
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<td>Mililani Town Community Organization</td>
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<td>Belt, Collins and Associates, Ltd.</td>
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<td>Pacific Resources, Inc.</td>
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<td>Mililani Town, Inc.</td>
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<td>6/21/78</td>
</tr>
<tr>
<td>Representative Daniel Kihano</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>
TO WHOM IT MAY CONCERN

Subject: Draft Environmental Impact Statement
Millilani Iki Elementary School
Millilani, Wahiawa, Oahu
(Consultation Phase)

Attached is a copy of the subject report for your review. Please submit your written comments by May 30, 1978 to:

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

Comments related to your area of responsibility, expertise and/or concern would be appreciated. All comments received will be reviewed and considered in preparing the environmental impact statement.

If you have no comments to offer on the project, we would appreciate your response to that effect. Should you have any questions on the report, please call the project coordinator, Mr. Henry Yasuda of the Public Works Division at 548-5742.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

Attachment
Mr. Henry Yasuda  
Department of Accounting and General Services  
Division of Public Works  
P. O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Yasuda:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement for Millani Iki Elementary School at Millani, Wahiawa, Oahu. The Draft Environmental Impact Statement provides a thorough project description and evaluation of alternative sites. We do not foresee any significant environmental impacts associated with the project.

Sincerely yours,

Kris K. Cheung  
Chief, Engineering Division

Department of Accounting and General Services  
Division of Public Works  
Attn: Mr. Hideo Mureskami  
P. O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Mureskami:

Thank you for the opportunity to review the Draft Environmental Impact Statement on Millani Iki Elementary School, Millani, Wahiawa, Oahu, (Construction Phase).

We have no comments to offer at this time.

Sincerely,

[Signature]

1 Incl  
Draft EIS
Mr. Henry Yasuda  
Project Coordinator  
Division of Public Works  
P.O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Yasuda:

We have received your Draft EIS for the Mililani Iki Elementary School with a letter requesting our review and comments.

Please be advised that the EPA as a Federal agency does not routinely participate in the State’s EIS process. We would, however, review federally funded projects or projects which should comply with Federal regulations or should be coordinated with Federal programs.

We certainly appreciate your efforts to keep us informed of your projects.

Sincerely,

Vicki H. Zvolikus  
Vicki H. Tsuhatko  
Manager, PICO
United States Department of Agriculture
Soil Conservation Service
P. O. Box 50004, Honolulu, HI 96850

April 13, 1978

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

Dear Sirs:

Subject: DEIS for Mililani Iki Elementary School
Mililani, Wahiawa, Oahu (Consultation Phase)

We have reviewed the subject EIS and have no comments to offer.

Thank you for the opportunity to review this document.

Sincerely,

Jack P. Kanaz
State Conservationist

Draft Environmental Impact Statement
Mililani Iki Elementary School
Mililani, Wahiawa, Oahu
(Consultation Phase)

As requested by Letter No. (2) 1432.8 of 22 March 1978, the
draft Environmental Impact Statement for Mililani Iki Elementary School
has been reviewed and the Navy has no comments.

Sincerely,

[Signature]

R. P. NYSTEDT
CAPTAIN, CIC, USN
DISTRICT CIVIL ENGINEER
BY DIRECTION OF THE COMMANDANT
Dear Hideo Murakami,

The Draft Environmental Impact Statement (DEIS) for the proposed Millinan Iki Elementary School has been reviewed and we have no comments as Army activities will not be significantly affected by the proposed project.

The opportunity to review and comment on the DEIS is appreciated.

Sincerely,

[Signature]
Colonel, CE
Director of Facilities Engineering

March 28, 1978

MEMORANDUM

To: Hideo Murakami, State Controller
   Department of Accounting and General Services

Subject: Draft EIS - Millinan Iki Elementary School
   Millinan, Wahiawa, Oahu

The Department of Agriculture has no comments to offer on the subject project.

[Signature]
Chairman, Board of Agriculture
April 5, 1978

MEMO TO: Department of Accounting & General Services

TO: Mr. Koichi H. Tokushige, Assistant Superintendent
   Office of Business Services

FROM: George Yamamoto, District Superintendent

SUBJECT: Draft Environmental Impact Statement
         Mililani 4th (Iki) Elementary School

We have reviewed the Environmental Impact Statement (EIS) and concur with the site selection.

We have the following comments to the draft:

1. The name Mililani-Iki was not formally adopted and all of our references and appropriations are with respect to Mililani 4th Elementary School.

2. The time table as noted on Page 8 is most crucial towards servicing the Mililani Town residents in a timely manner.

Thank you for the opportunity to participate in the EIS process.

D. Imai

Mr. George Yamamoto
District Superintendent
Central Oahu District Office
Department of Education
1136 California Avenue
Nahina, Oahu, Hawaii 96786

Dear Mr. Yamamoto:

Subject: Environmental Impact Statement for the Selection of Mililani Iki Elementary School Site

This is in response to your letter of April 5, 1978 regarding the name of the subject school.

Name of the school will be changed to "Mililani 4th (Iki) Elementary School", on the title page; however, the name Mililani Iki Elementary School will not be changed in the report. This will be explained in the summary of the report.

Should there be any questions, please advise.

Very truly yours,

TRUMANI TOSHIKADAMA
Chief, Planning Branch
Division of Public Works

From: Mr. K. Tokushige

Cc: Mr. K. Tokushige
MEMORANDUM

To: Mr. Hideo Murakami, State Comptroller
   Department of Accounting & General Services
From: Deputy Director for Environmental Health
Subject: Environmental Impact Statement (EIS) for Mililani Iki Elementary School, Mililani, Wahiawa, Oahu

April 13, 1978

Thank you for allowing us to review and comment on the subject EIS. On the basis that the project will comply with all applicable Public Health Regulations, please be informed that we have no objections to this project.

We submit the following comments for your information:

1. In the site selection of the school, consideration must be given to the possible adverse noise impact to the neighboring residents from school and recreational activities.

2. Construction activities must comply with the provisions of Public Health Regulations, Chapter 44A, Community Noise Control for Oahu:
   a. A noise permit must be obtained if the noise levels from the construction activities are expected to exceed the allowable levels of the regulations.
   b. Construction equipment and on-site vehicle or devices requiring an exhaust of gas or air must have a muffler.
   c. The contractor must comply with the conditional use of permit as specified in the regulations and the conditions issued with the permit.

3. All heavy vehicles traveling on streets and in the construction project must comply with the limits stated in Public Health Regulations, Chapter 44A, Vehicular Noise Control for Oahu.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

cc: Environmental Quality Commission

Dr. James Kunagai
Deputy Director for Environmental Health
Department of Health
State of Hawaii
Honolulu, Hawaii

MAY 24 1978

Subject: Environmental Impact Statement for the Selection of Mililani Iki Elementary School Site (Consultation Phase)

This is in response to your letter of April 13, 1978 regarding the subject project. Our response to your comments are:

(1) School Noise: School hours for elementary grade students are generally from 7:30 a.m. to 2:05 p.m. Mondays through Fridays exclusive of holidays. The major noise generated from the school will probably be from student activities during the morning and afternoon recesses. Thus, noise generated from school activities will be of short duration and should not be detrimental to neighboring residents.

School facilities are also used at night for parent-teacher meetings and other community groups in which the neighboring residents may belong. Those meetings are infrequent and generally end by 10:00 p.m.

(2) and (3) Noise Control: This project will comply with all applicable Department of Health noise regulations as stated on page 33 of the EIS.

Design plans and specifications will be submitted to your office for approval prior to construction. We thank you for your comments and trust that they have been answered.

Very truly yours,

HIDEO MURAKAMI
State Comptroller
March 29, 1978

REP: (P) 1433.8

Honorable Hideo Murakami
DAGS
P. O. Box 119
Honolulu, HI 96810

Dear Sir:

We have reviewed the draft EIS for Millilani
Iki Elementary School.

Page 33 of the draft explains that the project
conforms to the Oahu General Plan (BUCN) and to
the urban designation by the Land Use Commission.
Accordingly, we have no comment to offer.

Very truly yours,

W. Y. THOMPSON
Chairman, of the Board

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

Attention: Mr. Henry Yasuda
Project Coordinator

Gentlemen:

Subject: Draft Environmental Impact Statement
Millilani Iki Elementary School
Millilani, Wahiawa, Oahu
Your Letter No. (P) 1433.8

We have reviewed the above draft document and can offer no significant
comments or recommendations relating to our area of concern.

Thank you for the opportunity to review the matter.

Sincerely,

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

Dear Mr. Murakami:

Subject: Draft Environmental Impact Statement
Hikian Alii Elementary School
Hilina, Kailua, Oahu

Thank you very much for giving us the opportunity to review and
comment on the above-captioned Statement. We have no comments to offer
which can improve the document.

Sincerely,

[Signature]

Dr. M Indigenous, Ph.D.
Director

---

Mr. Tewane Tomingaga
Planning Branch
Division of Public Works
Department of Accounting
and General Services
1151 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Tomingaga:

Environmental Impact Statement
Preparation Notice
For the Selection of
Hikian Alii Elementary School Site
Hilina, Oahu

The Environmental Center of the University of Hawaii does not, in general,
participate in the preparation stage of the Environmental Impact Statement
process. We have taken this position so as not to be in conflict with our
later review responsibilities, nor in apparent competition with private
consultants.

However, we are available for consultation on an informal basis and formal
review comments will be limited to the draft EIS.

Yours very truly,

[Signature]

OAK C. Cox
Director

DCC/ck

cc: Jacquelin Miller
Barbara Vogt
Michael Maculay

AN EQUAL OPPORTUNITY EMPLOYER
Mr. Hideo Murakami  
State Comptroller  
Department of Accounting and  
General Services  
State of Hawaii  
P. O. Box 119  
Honolulu, Hawaii  96810

Dear Mr. Murakami:

Your Letter of March 22, 1978 Relating to  
Draft Environmental Impact Statement  
Millilani Iki Elementary School Site Selection

Water is available to serve the proposed project. However,  
only Site II is shown on our water master plan as a school site.  
Should any other site be selected, the developer will be  
required to update the existing master plan and to confirm that  
the distribution system is adequate to meet the school's fire  
flows.

When the school site is selected, construction plans must  
be submitted to us for review of fire protection requirements  
within the school complex and conformance to our construction  
standards.

If further information is needed on this matter, please  
call Lawrence Whang at 540-5221.

Very truly yours,

EDWARD Y. HIRATA  
Manager and Chief Engineer

Mr. Edward Y. Hirata  
Manager & Chief Engineer  
Board of Water Supply  
630 South Beretania Street  
Honolulu, Hawaii  96813

Dear Mr. Hirata:

Subject: Environmental Impact Statement for the  
Selection of Millilani Iki Elementary School Site (Consultation Phase)

This is in response to your letter of April 17, 1978  
regarding the subject project. Should a site other than  
Site No. 1 be selected for the school, the existing water  
master plan will be updated to confirm that the water dis-  
tribution system is adequate to meet the school's fire flow  
requirements.

School construction plans will be submitted to the  
Board of Water Supply for review and approval prior to start  
of construction. We thank you for your comments and trust  
that they have been answered.

Very truly yours,

RYO NISHIDA  
State Public Works Engineer

May 23, 1978

Fact Water... man's greatest need — use it wisely.
March 30, 1978

Mr. Hideo Murakami, Comptroller
Department of Accounting and
General Services
State of Hawaii
P. O. Box 113
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Subject: Draft Environmental Impact Statement
Millilani Iki Elementary School
Millilani, Waialua, Oahu
(Consultation Phase)
Tax Map Key: 3-4-55; Par. 1

This is in reply to your letter No. (P)14323 dated March 22, 1978.

We do not have any comments to offer on the project.
If there are any questions, please call on us again.

Very truly yours,

HOWARD M. SHIMA
Director and Building Superintendent

---

April 20, 1978

Mr. Hideo Murakami, State Comptroller
State of Hawaii
Department of Accounting and General Services
P. O. Box 113
Honolulu, Hawaii 96810

Attention: Henry Yasuda

Dear Mr. Murakami:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT,
MILLILANI-IKI ELEMENTARY SCHOOL
PROJ. REF. NO. (P) 14323

We have reviewed the Draft Environmental Impact Statement for
the site selection of the Millilani-Iki Elementary School site
and make the following comments:

The park sites located adjacent to alternate sites 1, 2 and 3
have already been established and will be developed into
neighborhood-type parks. These sites will be dedicated to the
City by Millilani Town, Inc., for park purposes.

We have no objections to the development of Millilani-Iki Elementary
School adjacent to any of these park sites.

Should you have any questions, please contact Mr. Jason Yuen
at 523-6884.

Sincerely,

[Signature]

ROBERT T. FUNUDA, DIRECTOR
April 11, 1978

Mr. Hideo Murakami, Comptroller
Department of Accounting and General Services
State of Hawaii
1121 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Murakami:

Draft Environmental Impact Statement for the Selection of Mililani Iki Elementary School Site, dated February 1978
Comments Requested March 22, 1978

We offer the following comments:

1. We agree with you that the bussing of school students from Mililani Town to Honolulu schools is not a viable alternative (p. 4). Bussing costs would be comparable to new school construction.

2. Figure 5 (p. 11) shows the five alternative sites in Mililani Town. It should be noted that not all of these are viable alternatives, and the site selection process may be somewhat of an academic exercise.

Site 2 seems to be superimposed on the site for a planned development for housing (RD-8). If so, the acquisition of land for a school here would require replanning and reprogramming of the RD-8 for the balance of the site with the related costs in time and money.

Site 3 seems to be already developed with single-family houses, based on information and maps available at the Data Systems Branch of the Department of General Planning.

Site 4 appears to have already been subdivided and platted. You might check whether building permits have been issued for the construction of single-family houses.

Site 5 is proposed for low-density apartment uses on the Detailed Land Use Map. There may be reluctance on the part of the developer to dedicate this site. Also, you indicate that this site may require bussing of pupils.

This, in effect, leaves you with Site 1 which has been set aside for the school on the Detailed Land Use Map with the concurrence of both the City and the developer. The remaining issue, then, is whether or not this site is appropriate.

3. The Department of the Army Director of Facilities Engineering, Colonel Rodolph, indicates the presence of an underground fuel pipeline somewhere in the vicinity of the proposed school (Appendix, p. C-3). We note that you attempted to get verification from the Commander, 15th ABW in June 1977, but have had no response.

If you still have had no response, you might check with the Corps of Engineers on this. Also, you might take a close look at the tax plats for the area to see whether the easements are mapped. You would have to look at the large tax plat sheets at the Department of Taxation.

Thank you for affording us an opportunity of reviewing your impact statement.

Sincerely,

DANN BURKH
Chief Planning Officer

RD:fmt
MAY 25, 1978

Mr. Ramon Duran
Chief Planning Officer
Department of General Planning
City and County of Honolulu
653 South King Street
Honolulu, Hawaii 96813

Dear Mr. Duran:

Subject: Environmental Impact Statement for the Selection of Mililani Iki Elementary School Site (Consultation Phase)

This is in response to your letter of April 11, 1978 providing comments on the subject project. Our response to these comments are as follows:

1. 

2. 

3. 

We thank you for your comments and trust that they have been answered.

Very truly yours,

MAY 25, 1978

NIRIO NISHIOKA
State Public Works Engineer

April 11, 1978

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

Dear Mr. Murakami:

Draft Environmental Impact Statement
Mililani Iki Elementary School
Mililani, Wahiawa, Oahu, Hawaii

We have reviewed the Draft Environmental Impact Statement for the Mililani Iki Elementary School sites and are satisfied with the pedestrian and vehicular access provided at the various locations.

Very truly yours,

KASU HAYASHIDA
Director
Mr. Hideo Murakami, State Comptroller  
Department of Accounting and General Services  
Division of Public Works  
P.O. Box 119  
Honolulu, Hawaii 96810  

ATTENTION: Mr. Nikio Nishioka  

Dear Mr. Murakami:  

Environmental Impact Statement  
Millilani Iki Elementary School,  
Millilani, Oahu  

Our comments on your draft of the above are as follows:  

1. Alternative No. 1 appears to be the most desirable site for the school.  

2. Are DOE's projected student population data cited on pages 5 and 6 consistent with the revised General Plan for Oahu and DOE's new population projections?  

Should you have any questions regarding this matter, please contact Mr. John Whalen of our staff at 525-4077.  

Very truly yours,  

GEORGE S. MORIGUCHI  
Director of Land Utilization  

GSM:sl
June 1, 1978

TO: Honorable Mideo Murakami, Controller
    Department of Accounting & General Services

FROM: Kuchio M. Takushige, Assistant Superintendent
    Office of Business Services

SUBJECT: E13 Millani Iki Elementary School

This is in reply to your letter of May 24, 1978 requesting our response to DLU's comments regarding the subject E13.

DLU's Comment: Are DOE's projected student population data cited on pages 5 & 6 consistent with the revised General Plan for Oahu and DPEC's new population projection?

DOE's Response: DOE's enrollment projections for the Millani area are based on the number and type of residential units planned for construction in the Millani area. Estimates reflect prior experience for similar type housing. Projections are made whenever there are land use, general plan, zoning, or other changes that will affect the number and type of housing units to be constructed.

Construction of housing within the area to be serviced by the proposed Millani Iki Elementary School is proceeding in accordance with the framework of the County General and the State General Plan. We do not anticipate the need for any significant adjustments to the projections shown on page 5.

cc: Facilities Dr. w/Attachments
March 28, 1978

Division of Public Works
Department of Accounting and General Services
State of Hawaii
P. O. Box 113
Honolulu, Hawaii 96810

Gentlemen:

Subject: Environmental Impact Statement for the Selection of Mililani Iki Elementary School Site (Consultation Phase)

We have reviewed the subject document and have the following comments.

1. The sewer collection and treatment systems appear to be adequate to serve the proposed school. We suggest that the water lines used for irrigation be served by one meter and kept separate from the other uses. This arrangement will make it easier to determine the sewer service charge.

2. Drainage plans should be coordinated with the Drainage Section, Division of Engineering.

3. The disposal of solid waste from the school should be by private haulers. Palai'ai Landfill near Makakilo is the suggested disposal site.

Very truly yours,

Division of Public Works
City and County of Honolulu
State of Hawaii

cc: Div. of Engineering
Div. of Refuse
Div. of Wastewater Management

MAY 2 3 1978

Mr. Wallace Miyahira
Director & Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Miyahira:

Subject: Environmental Impact Statement for the Selection of Mililani Iki Elementary School Site (Consultation Phase)

This is in response to your letter of March 28, 1978 regarding the subject project. Based on your comments, the following items will be added to the subject EIS:

1. On Page 23, Item C3. Sewer - "A two-meter water system will be considered to facilitate the determination of sewer service charge."

2. On Page 23, Item C4. Drainage - "The Drainage Section of the Division of Engineering will be consulted during the development of the drainage plans."

3. On Page 26, Item E9. Solid Waste - "Solid waste will be disposed of by the State of Hawaii or private haulers at the Palai'ai landfill near Makakilo or to another approved site. The rating for all sites is 'good'."

We thank you for your comments.

Very truly yours,

Division of Public Works
State of Hawaii

NY:jnt 2-5
Mr. Hideo Murakami, State Comptroller  
Department of Accounting and General Services  
Division of Public Works  
P.O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Subject: Draft Environmental Impact Statement  
Millilani Iki Elementary School  
(Tour Letter (P)1457.6)

Thank you for the opportunity to review the Draft environmental impact statement for the selection of Millilani Iki Elementary School Site (Consultation Phase) dated February 1978. We have reviewed this document and find that the proposed project should have no significant impact on our system and that no existing or proposed power lines will be affected by the school.

Yours truly,

John C. McCain, Ph.D.  
Manager of Environmental Department

March 31, 1978

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

Dear Mr. Murakami:

We have received your letter regarding the Environmental Impact Statement for the Selection of Millilani Iki Elementary School Site requesting written comments on my part.

I have reviewed the report and, therefore, have no comments to offer at this time.

Sincerely,

Francis T. Tanaka  
Manager, Environmental Affairs
May 26, 1978

Mr. Henry Yasuda
Department of Accounting and General Services
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Yasuda:

This letter is an informational response to the draft Environmental Impact Statement for the selection of Millilani Iki Elementary School site prepared by the Planning Branch of the Department of Accounting and General Services, February 1978.

Reference is made to page 11 of that Impact Statement. On that page is shown 4 alternative sites for the Iki School. Please be advised that sites 4 and 5 are totally built out, sold and occupied. Site 2 is under construction and will have occupants residing in that area by mid-September of this year. Site 3 is currently under design for a single family project and is scheduled to commence construction in December of this year. The only site remaining, of course, is the original site 1 as shown on the General Plan and zoned for school use.

With the above information, it is highly unlikely that an alternative site as outlined in this Impact Statement could be found within the adjoining properties. It is therefore recommended that the original school site 1 be selected and a program commence as soon as possible for construction of the Iki School.

Very truly yours,

MILLILANI TOWN, INC.

Gene Ferguson
Vice President and General Manager

Mr. Gene Ferguson
Vice President & General Manager
MILLILANI TOWN, Inc.
P.O. Box 2780
Honolulu, Hawaii 96803

Dear Mr. Ferguson:

Subject: Environmental Impact Statement for the Selection of Millilani Iki Elementary School Site

Thank you for your letter of May 26, 1978 relative to the development status of the various alternative school sites. Based on this information, item "SI Displacement" on page 10 of the EIS will be revised. Should there be any questions, please contact Mr. Henry Yasuda of the Planning Branch at 548-5742.

Very truly yours,

HIROSHI NISHIURA
State Public Works Engineer
APPENDIX E

Review Comments and Responses
Public Review Phase
### REVIEW COMMENTS AND RESPONSES

#### PUBLIC REVIEW PHASE

DAGS Letter of transmittal dated August 11, 1978  
EQC Letter of August 28, 1978 with EIS distribution list

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AUG 11 1979

Mr. Donald Bremner
Chairman
Environmental Quality Commission
550 Halekauweloa Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Bremner:

Subject: Mililani Iki Elementary School Environmental Impact Statement

Transmitted herewith are sixty (60) copies of the Environmental Impact Statement for Mililani Iki Elementary School as required by Sub-Part F of your regulations.

Should there be any questions, please have your staff call Mr. Henry Yasuda of the Public Works Division at 549-5742.

Very truly yours,

HYDPO HURAKAMI
State Comptroller

cc: OEQC w/ 6 copies
MEMORANDUM

TO:      Hideyo Murakami, State Comptroller
           Department of Accounting and General Services

FROM:    Harold A. Brenner, Chairman
           Environmental Quality Commission

SUBJECT: Environmental Impact Statements for Hikianai Iki
           Elementary School, Ewa District, Oahu

Copies of the EIS's have been officially filed on
August 31, 1978. We have sent copies of the statement to
the agencies and organizations indicated on the attached distribution
list. To allow for a 30-day public review period, deadline
dates for comments in September 22, 1978. Availability of the EIS has
been published in the August 21, 1978 EQC Bulletin. All written
comments will be directed to the Office of Environmental Quality Control
with a copy to your agency.

If you should have any questions regarding this matter,
please call our office at 548-6015.

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Amount Sent

**Office of the Governor**
State of Hawaii
Environmental Quality Commission
553 Nahele Avenue, Room 201
Honolulu, Hawaii 96813

**Certification**

The Environmental Impact Statement (EIS) for the Selection of Miliwai Apts Elementary School Site has been reviewed and it appears that areas of concern to the US Army Support Command, Hawaii, have been adequately addressed.

The opportunity to review the EIS is appreciated. The document is returned in accordance with your request.

Sincerely,

CARL R. ROGOLLY
Colonel, US
Director of Facilities Engineering

Copies forward: (as incl) ORIGINAL TO: JOHN E. PEARSON, JR.
LTC, Corps of Engineers

Office of Environmental Quality
Central
553 Nahele Avenue, Room 201
Honolulu, Hawaii 96813

Department of Accounting
and General Services
1191 Punchbowl Street
Honolulu, Hawaii 96813
August 29, 1978

Office of Environmental Quality Control
(Governor, State of Hawaii)
550 Kakekawa Street, Room 301
Honolulu, Hawaii 96815

Re: EIS for Mililani Iki Elementary School Site,
Mililani, Hawaii

Dear Sirs:

We have reviewed the referenced Environmental Impact Statement regarding the potential impacts of the proposed project on resources for which this agency has jurisdiction and have determined that the proposed project will have little if any adverse impacts.

In view of this, we have no additional comments to offer and are returning the EIS to your office.

We appreciate the opportunity to comment.

Sincerely yours,

[Signature]
Maurice K. Taylor
Field Supervisor

cc: BA

Save Energy and You Serve America!

[Signature]

[Signature]
DEEV (Mr Nakashima, 440-1831)

Environmental Impact Statement (EIS) for the Selection of Mililani Iki Elementary School Site, Mililani Town, Ewa District, Oahu

Governor, State of Hawaii
Office of Environmental Quality Control
500 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

1. This office has reviewed the subject EIS and has no additional comments to render relative to the proposed project. Comments were furnished to Department of Accounting and General Services, Division of Public Works during our review of the draft EIS in April 1976.

2. We greatly appreciate your cooperative efforts in keeping the Air Force apprised of your project and thank you for the opportunity to review the document.

By to: Dept of Accounting & General Services
1151 Punchbowl Street
Honolulu, Hawaii 96813

Environmental Quality Commission
Office of the Governor
State of Hawaii
500 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement for the selection of Mililani Iki Elementary School Site

The Environmental Impact Statement for the selection of Mililani Iki Elementary School Site has been reviewed and the Navy has no comments to offer. As requested by your letter of 14 August 1976, the subject document is returned.

Thank you for the opportunity to review the EIS.

Sincerely,

L. M. Peck
CAPTAIN, CEC, USA
ENGINEER
BY ORDER OF THE COMMANDANT

Encl:

Copy to: (w/o encl)

DEOV

DIVISION OF PUBLIC WORKS

INITIAL CHECK

[Signatures and initials]

[Signatures and initials]
September 18, 1978

MEMORANDUM

To: Office of Environmental Quality Control

Subject: EIS for Millilani Iki Elementary School Site

The Department of Agriculture has no comments. All proposed sites are on urban designated lands.

Thank you for the opportunity to comment.

John Farias, Jr.
Chairman, Board of Agriculture

cc: Dept. of Accounting & General Services
HONORABLE HIDEO MURAKAMI
STATE COMPTROLLER
STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
1135 Punchbowl Street
Honolulu, HI 96813

September 7, 1978

MEMORANDUM

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

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement (EIS) for Mililani Iki Elementary School Site

Dear Mr. Murakami:

Thank you for allowing us to review and comment on the subject EIS. On the basis that the project will comply with all applicable Public Health Regulations, please be informed that we have no objections to this project.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

Sincerely,

cc: Mr. Richard L. O'Connell
   Director
   Office of Environmental Quality Control

cc: Environmental Quality Commission
MEMORANDUM

TO: Environmental Quality Commission
FROM: Franklin Y. K. Sunn
SUBJECT: Environmental Impact Statement Review
Title: Mililani Iki Elementary School Site
Location: Mililani Town, Ewa District, Oahu
Classification: Agency Action

The Hawaii Planning Authority has reviewed the EIS for the subject project and can offer no comments relating to the proposed development.

We herewith return the attached EIS for your further perusal.

Thank you for allowing us to comment on this matter.

FRANKLIN Y. K. SUNN
Executive Director

Attachment

cc: Dept. of Accounting & General Services
DSSK
August 29, 1973

Office of Environmental
Quality Control
350 Kaliakai St., Ste. 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement
         Hiiilani Nii Elementary School Site
         Hiiilani Town, Iwa District, Oahu

Thank you for giving us the opportunity to review and comment on the above-captioned site. We have no comments to offer which can improve the document.

Very truly yours,

Alarik
cc: LT-P

August 29, 1973

Office of Environmental
Quality Control
350 Kaliakai St., Ste. 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement
         Hiiilani Nii Elementary School Site Selection
         Ford, Island of Hawaii

Thank you very much for giving us the opportunity to review and comment on the above-captioned site. Please be informed that this proposed project has been considered with our Land Utilization Plans since the early stages of development. We therefore have no further comments to offer which could improve the document.

Very truly yours,

Alarik
cc: LT-P

Office of Environmental
Quality Control
350 Kaliakai St., Ste. 301
Honolulu, Hawaii 96813
D. NEW APPROACHES TO STORM WATER DESIGN/A CHALLENGE TO CIVIL ENGINEERING

According to the report by ASCE and NAHB, "Residential Storm Water Management":

"...the basic philosophy of storm water management in residential, and for that matter, all kinds of development, is open to challenge and revision.

"Poor philosophy sought maximum convenience at an individual site by the most rapid possible elimination of excess surface water after a rainfall and the containment and disposal of that water as quickly as possible through a closed system. The cumulative effects of such approaches have been a major cause of increased frequency of downstream flooding, often accompanied by diminishing groundwater supplies, as direct results of urbanization; or have necessitated development of massive downstream engineering works to prevent flood damage.

"The entire process of storm water runoff management is currently undergoing a significant redefinition, if not revolution. This is evidenced by a new emphasis on the desirability of delaying or storing rainfall where it falls, on site, which sometimes requires trade-offs with short-term localized inconvenience.

"The water falling on a given site should, in an ideal design solution, be absorbed or retained on-site to the extent that after development the quantity and rate of water leaving the site would not be significantly different than if the site had remained undeveloped. This objective may conflict with present statutory and case law in some locales, which does not reduce its validity.

"Optimum design of storm water collection, storage and treatment facilities should strike a balance among capital costs, operation and maintenance costs, public convenience, risk of significant water-related damage, environmental protection and enhancement, and other community objectives."
Professor Yu-Si Pok
Faculty EIS Review Coordinator
Water Resources Research Center
University of Hawaii
2590 Dole Street
Honolulu, Hawaii 96822

Dear Professor Pok:

Subject: Environmental Impact Statement for the
Miliami Eki Elementary School
Site Selection (Public Review Phase)

Thank you for your letter of September 11, 1978 commenting on the recent study of the infiltration capacity of soils in the Miliami area and transmitting an excerpt of a publication regarding new approaches to storm water design. We have a copy of the report and will be considering this matter during the design of the school.

If there are any questions, please call Mr. Henry Yasuda of the Planning Branch at 548-5742.

Very truly yours,

[Signature]

Rikio Nishioka
State Public Works Engineer

by

Walter Luma Associates, Inc.
Civil, Structural, Soils Engineers
Environmental Quality Commission
550 Kaliauila St., Room 301
Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement for Mililani Iki Elementary School Site

We have reviewed the subject Environmental Impact Statement and have no additional comments on the site selection.

We would appreciate an opportunity to review the detailed vehicular access plans for the school during the design phase.

Very truly yours,

 Kane Nishida
Director

cc: DASS

Mr. Kazuyoshi Hayashida
Director, Department of Transportation Services
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: Environmental Impact Statement
Mililani Iki Elementary School Site

This is in response to your letter of August 29, 1978 regarding the subject project. The detailed vehicular access plans for the selected school site will be sent to your office for review and approval during the design phase of the subject school. We thank you for your comment.

Very truly yours,

Nikki Nishida
State Public Works Engineer

NY: jnt 1-11
Environmental Quality Commission
Office of the Governor
550 Kamehameha Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT
MILLILANI IKI ELEMENTARY SCHOOL SITE

We have reviewed the Environmental Impact Statement for the site selection of the Millilani Iki Elementary School and make the following comments.

We concur with the selection of Alternate Site No. 1 for the proposed elementary school. The site is located adjacent to our proposed neighborhood park at which we will develop recreational facilities to serve both the school and community needs.

Sincerely,

ROBERT T. FUKUDA, DIRECTOR

cc: Department of Accounting and General Services (State)
August 17, 1978

Office of Environmental Quality Control
Office of the Governor
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement for the Selection of Millani Iki Elementary School

We have reviewed the subject EIS and do not have any additional comments.

Very truly yours,

WALLACE MIYAHIRA
Director and Chief Engineer

cc: DACS

August 22, 1978

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement for the Selection of Millani Iki Elementary School

We have reviewed the subject environmental impact statement and have no comment.

Thank you for allowing us the opportunity of reviewing the EIS.

Sincerely,

TYRONE T. KUBAO
Director

cc: Department of Accounting and General Services, State of Hawaii
Mr. Richard O'Connell, Jr.
Director
Office of Environmental Quality Control
550 Nailekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Your Letter of August 14, 1978 Regarding to Environmental Impact Statement for Mililani Iki Elementary School Site

We have no objections to the proposed project or any additional comments to our letter on page D-33 of the environmental document.

If you have any questions on this matter, please call Lawrence Wong at 548-3221.

Very truly yours,

Edward Y. Higata
Manager and Chief Engineer

cc: Dept. of Accounting and General Services
APPENDIX F

List of Necessary Approvals
<table>
<thead>
<tr>
<th>PAGE</th>
<th>CORRECTION/ADDITION</th>
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<tbody>
<tr>
<td>8</td>
<td>Table 1, Regular Classrooms, No. of Units, change 24 to 21</td>
</tr>
<tr>
<td>8</td>
<td>Table 1, Vehicular Parking, Total Area, change 16,200 to 16,800</td>
</tr>
<tr>
<td>8</td>
<td>Table 1, Toilets, Unit Area, change 199 to 100; No. of Units, change 28 to 24; and Total Area, change 2,800 to 2,400</td>
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<tr>
<td>E-19</td>
<td>Additional page - Office of Environmental Quality Control (OEQC) letter of September 28, 1978</td>
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<tr>
<td>E-20</td>
<td>Additional page - DAGS response of October 12, 1978 to OEQC comments</td>
</tr>
<tr>
<td>E-22</td>
<td>Additional page - C &amp; C of Honolulu Department of Land Utilization letter of August 30, 1978</td>
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MEMORANDUM

TO: Hideo Muraishi, Comptroller
Department of Accounting and General Services

FROM: Richard L. O'Connell, Director
Office of Environmental Quality Control

SUBJECT: Environmental Impact Statement - Mililani Iki Elementary School, Mililani, Oahu

September 28, 1978

We have reviewed the subject environmental impact statement and have the following comments to offer:

1) If the Army's Waialae Lake Ammunition Storage Tunnel is in the general proximity of the proposed school site, what safeguards will be taken to assure that the Storage facility is screened from and inaccessible to students?

2) F.B. The enrollment projections for Mililani Iki school appear to indicate that the school population would exceed design standards as early as 1982, or 2 years after the planned opening date. If this is correct, will additional schools be needed in the area?

3) A legend explaining the symbols used in the water system diagram (figure 15) would aid the reader's understanding of the system.

4) There appear to be several errors in Table I, on F.B. specifically:
   a) Unit area measurement for toilet facilities
   b) Total area measurements for vehicular parkings and regular classrooms

As of this date, we have received nine comments on the subject EIS. We have not attempted to summarize the comments of other reviewers. Instead, we recommend that each comment be given careful consideration by yourself.

The EIS Regulations allow the accepting authority or his authorized representative to consider responses received after the fourteen day response period. This Office will exercise the option and will consider responses made after the fourteen day period.

Thank you for allowing us to review this EIS. We hope that our comments will prove useful to you in the revision of this statement.

Attachment

List of Commenters on the EIS for Mililani Iki Elementary School Site:

State Agencies

- Dept. of Defense
  - Dept. of Social Services and Housing
  - Dept. of Land and Natural Resources
  - Dept. of Planning

Federal Agencies
- U.S. Fish and Wildlife Service
- U.S. Army DAFE

City and County of Honolulu
- Dept. of Transportation Services
- Dept. of Land Utilization
- Dept. of Housing and Community Development
- Dept. of Public Works

Comment Date
- 8/17/78
- 8/21/78
- 8/23/78
- 8/24/78
- 8/25/78
- 8/26/78
- 8/27/78
- 8/28/78
- 8/29/78
- 8/30/78
- 9/17/78
Mr. Richard O'Connell
Director
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Subject: Environmental Impact Statement for the Mililani Iki Elementary School Site Selection (Public Review Phase)

This is in response to your letter of September 28, 1978 regarding the subject project. The following responses to the comments listed in your letter are provided:

1. We were verbally informed on October 2, 1978 by the U. S. Army's Engineer Resource Management Division that the Waikakaula Ammu Storage Tunnels have not been in use for over ten years. The steel doors to the tunnels were welded shut and last year's inspection revealed that the doors were blocked by slides and vegetative growth.

2. Additional schools will not be needed for the Mililani Iki Elementary School service area. Enrollments in excess of the long-term design enrollment of 620 students will be accommodated by providing additional portable classrooms.

3. The purpose of Figure 15 is to show the location of main water lines as they relate to the alternative sites. The symbols refer to other plans and/or detailed drawings which are not appropriate for the EIS.

4a. The item for toilets in Table 1 should read 100 sq. ft. unit area as noted in footnote 4 rather than 199; 24 units in lieu of 28; and 2,400 sq. ft. total area in lieu of 2,500.

4b. In Table 1, the item for regular classroom should read 21 units in lieu of 24 and the total area for vehicular parking should read 16,800 sq. ft. in lieu of 16,200 sq. ft.

Since the last day for response to the subject EIS was September 22, 1978 and we did not receive copies of letters from the U. S. Army DAPE, State Department of Land and Natural Resources and City Department of Land Utilization, they were not made part of the final EIS which we published and transmitted to your office on September 29. These letters as well as your September 28 letter and our responses will be included in the EIS.

We thank you for your comments and trust that they have been answered.

Very truly yours,

HIDEO MURAKAMI
State Comptroller
August 24, 1978

Honorable George R. Ariyoshi
Governor of Hawaii
550 Halekauwila Street
Honolulu, HI

Dear Sir:

We have reviewed the EIS for the selection of Millilani Iki Elementary School site.

We have no additional comments to offer to our attached letter dated March 29, 1978 to Honorable Hideo Murakami of the Department of Accounting and General Services.

Very truly yours,

W. Y. THOMPSON
Chairman of the Board

Att.

Office of the Governor
State of Hawaii
Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

The Environmental Impact Statement (EIS) for the Selection of Millilani Iki Elementary School Site has been reviewed and it appears that areas of concern to the US Army Support Command, Hawaii, have been adequately addressed.

The opportunity to review the EIS is appreciated. The document is returned in accordance with your request.

Sincerely,

CARL F. MOOLELA
Colonel, CE
Director of Facilities Engineering
JOHN E. PEARSON, JR.
LTC, Corps of Engineers

Copies furnished: (two incl)

Office of Environmental Quality Control
550 Haleakaula Street, Room 301
Honolulu, Hawaii 96813

Department of Accounting and General Services
1151 Punchbowl Street
Honolulu, Hawaii 96813
August 30, 1978

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
 Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement
Mililani Iki Elementary School
Mililani, Oahu

We have reviewed the above, and have no further comments to offer.

Very truly yours,

GEORGE S. MORIUCHI
Director of Land Utilization

GSM:sl
### List of Necessary Approvals

**1. Land**

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<th>Action</th>
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<tr>
<td>Land acquisition</td>
<td>Governor of Hawaii</td>
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<td>Land acquisition</td>
<td>State Dept. of Land &amp; Natural Resources</td>
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<tr>
<td>State land use change</td>
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<td>Zoning Variance</td>
<td>C&amp;C Dept. of Land Utilization</td>
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<tr>
<td>General Plan amendment</td>
<td>C&amp;C Dept. of General Planning</td>
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**2. Construction**

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<td>State Dept. of Health</td>
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<td>State Dept. of Labor - Industrial Safety Div.</td>
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<td>State Fire Marshall</td>
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1/ Depending on site selected