EXECUTIVE CHAMBERS
HONOLULU

JOHN WAIHEE
GOVERNOR

May 8, 1992

MEMORANDUM

TO: The Honorable Russel S. Nagata, Comptroller
Department of Accounting and General Services

SUBJECT: Final Environmental Impact Statement for the Site Selection for the New Kihei Elementary School

I am pleased to accept the Final Environmental Impact Statement for the Site Selection for the New Kihei Elementary School as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes. This environmental impact statement will be a useful tool in the process of deciding if the action described therein should be allowed to proceed. My acceptance of the statement is an affirmation of the adequacy of that statement under the applicable laws and does not constitute an endorsement of the proposed action.

When the decision is made regarding the proposed action itself, I expect the proposing agency to consider if the societal benefits justify the environmental impacts which will likely occur. These impacts are adequately described in the statement and, together with the comments made by reviewers, provide useful analysis of the proposed action.

JOHN WAIHEE

cc: Office of Environmental Quality Control

SITE SELECTION STUDY

AND

FINAL ENVIRONMENTAL IMPACT STATEMENT

NEW KIHEI ELEMENTARY SCHOOL

KIHEI, MAUI

Prepared For:

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES,
STATE OF HAWAII

April , 1992

Comprehensive Consulting Services of Hawaii

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SITE SELECTION REPORT
AND
FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE
NEW KIHEI ELEMENTARY SCHOOL

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

Proposing Agency:

Department of Accounting and General Services
State of Hawaii
(DAGS Job # 15-16-4119)

Accepting Authority:

Hon. John Waihee,
Governor, State of Hawaii

Responsible Official : _____ _____
RUSSEL S. NAGATA, COMPTROLLER DATE

Prepared By :

Comprehensive Consulting Services of Hawaii
Kailua, Hawaii

Preface

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

A summary of the final environmental impact statement is incorporated with the impact statement itself and the site selection study report.

All four resulting candidate sites are addressed with respect to the requirements of Chapter 343, HRS and Environmental Impact Statement Rules(Title 11 Chapter 200, DOH Administrative Rules).

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LIST OF MAPS, TABLES AND GRAPHS

MAPS

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SUMMARY

I. Project Description:

This phase of the proposed action is to search for, locate and evaluate candidate sites for a new elementary school with a design enrollment of 900 in Kihei, Maui.

The Kihei area has experienced rapid growth and such growth continues. The area has one elementary school with a capacity of 900 - 1,000 to serve a present demand of 1,260. This demand will increase in the near future.

II. Description of the Project Environment:

The project service area extends from Maalaea to Makena and encompasses 32 square miles. Kihei is the central urbanized area in this region located on the lower western slope of Haleakala. Some areas in the northern sector are subject to flooding and tsunami inundation but flooding is not a factor in the southern sector due to higher elevations found there. Site selection has focussed in the southern sector. The county established SMA covers virtually the entire area. The area is well supported by public facilities and services although water supply and wastewater treatment capacity are continuing concerns. A well-developed road system exists carrying medium to heavy traffic volumes on a daily basis. Traffic is projected to increase by 60% over the next seven years. No endangered species are involved but minor archaeological sightings are common. Piilani Highway is a source of traffic-generated noise that cannot be ignored in land use decisions.

III. Potential School Sites:

Thirteen potential vacant land areas in south Kihei were inventoried initially. Seven such areas did not meet minimum site criteria

established by DAGS. The six remaining sites were subjected to detailed evaluation by 28 criteria designed to measure suitability. Two additional sites were found unsuitable following this evaluation (Sites # 5 & 6) and the resulting four sites offered as candidate sites. (See Map #7 for location of sites, individual site maps for details, and Table III for site ratings).

IV. Environmental Impacts:

Short Term - Construction impacts of noise, traffic, air quality reduction, erosion, disturbance of trees, shrubs and ground cover, archaeological disturbance, safety hazards and the production of construction wastes will be encountered on a temporary basis.

Site acquisition will also remove 8 acres of land from the private inventory and the county property tax rolls.

Long Term - No long term adverse impacts are foreseen as a result of providing the school. Long term adverse social impacts would occur if the school is not built, or is extensively delayed. Long term beneficial impacts will also accrue secondarily to society by providing a facility to serve the public and to educate society's children. Final site development will enhance natural beauty in the area and provide a new habitat for flora and fauna disturbed by construction. The project can be accommodated by the road and traffic system even in terms of cumulative conditions; involves no endangered species and a full range of existing infrastructure is available to support the project. Proposed sites are compatible with land use policies, plans and zoning in the project area. No mitigation measures beyond those routinely involved in mitigating construction impacts are contemplated. However, energy and water conservation goals will be emphasized.

V. Alternatives:

The expansion of the existing school and reorganization of the school district as alternatives have already been exhausted as possibilities. The "no action" alternative is unacceptable socially. Serious social impact will occur if the school is not built. Such impact would on-set immediately and continue until the over-capacity situation is remedied.

VI. Relationship of Environmental Use to Productivity:

No non-renewable resources are involved in this phase of the action. The shift of the use of a land resource to an educational public facility is a productive social enhancement produced by a minor environmental commitment.

VII. Irreversible or Irretrievable Commitments:

No such commitments are involved.

VIII. Unresolved Issues:

No unresolved issues remain pertaining to this phase of the action.

IX. Necessary Approvals:

1. Acceptance of Final EIS by Governor.
2. Limited subdivision approval by county to partition 8 acre site from larger parcel at Site # 1,2,3 & 4. Entire parcel at Site # 3 may be disirable. Drainage and sewer easements at Site # 1 & 2. Land Court subdivision recording if Site # 3 partitioned.
3. SMA Development permits from county.
4. Water connection permits from county.
5. Wastewater treatment plant and sewer connection permits from county.
6. Storm drainage disposition approval from county.
7. Building permit and grading permit,County of Maui.

FINAL ENVIRONMENTAL IMPACT STATEMENT- New Kihei Elementary School

1. Project Description:

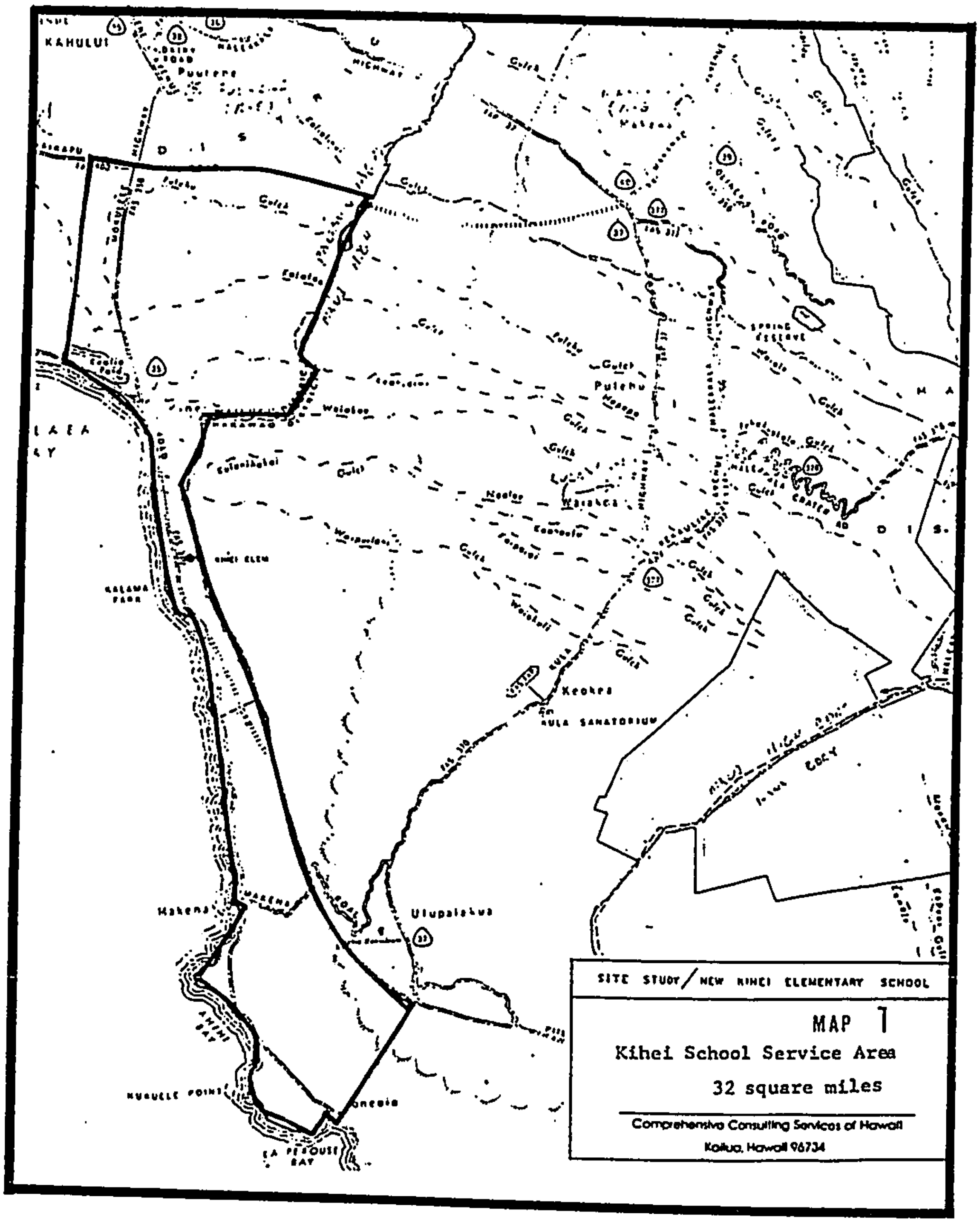
A. Purpose of the Project:

To search for, locate and evaluate potential sites for a new elementary school (K - 5) in the Maalaea-Kihei-Wailea-Makena school service area(See Map # 1) which has a planned target opening date of September 1995, or sooner if possible. A site will be selected on the basis of this evaluation.

B. Project Need:

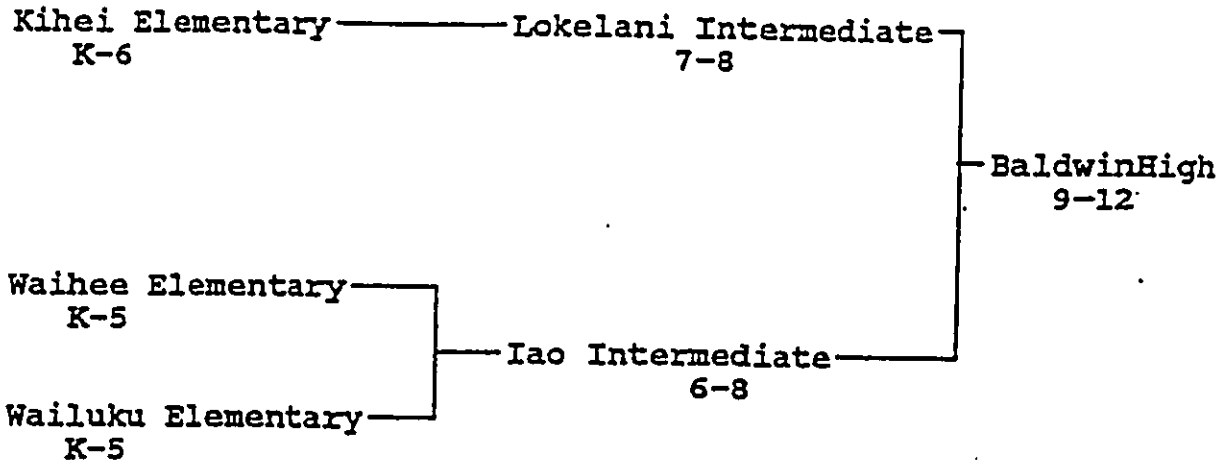
The existing school service area contains approximately 32 square miles and generates 1260 public elementary students. These students are all accommodated at Kihei Elementary School on E. Lipoa Road at present, a school with a design capacity of of 900 students and an ideal capacity of 700. In addition to the 32 permament classrooms, 23 portable classsrooms have been installed to serve the demand. Kihei Elementary School is part of the Maui District school "feeder" complex as shown on Table # 1.

The resident population of Maui Island has increased rapidly. A 63 % increase was experienced between 1970 and 1980[1] and a 48% increase occurred during the 1980's raising the Island's population to 93,057 in 1990.[2]


SITE STUDY / NEW KIHEI ELEMENTARY SCHOOL
MAP 1
Kihei School Service Area
32 square miles
Comprehensive Consulting Services of Hawaii
Kailua, Hawaii 96734
KAHULUI
Pulehu
Keokea
KULA SANATORIUM
Makena
Ulupalakua
LA PEROUSE BAY

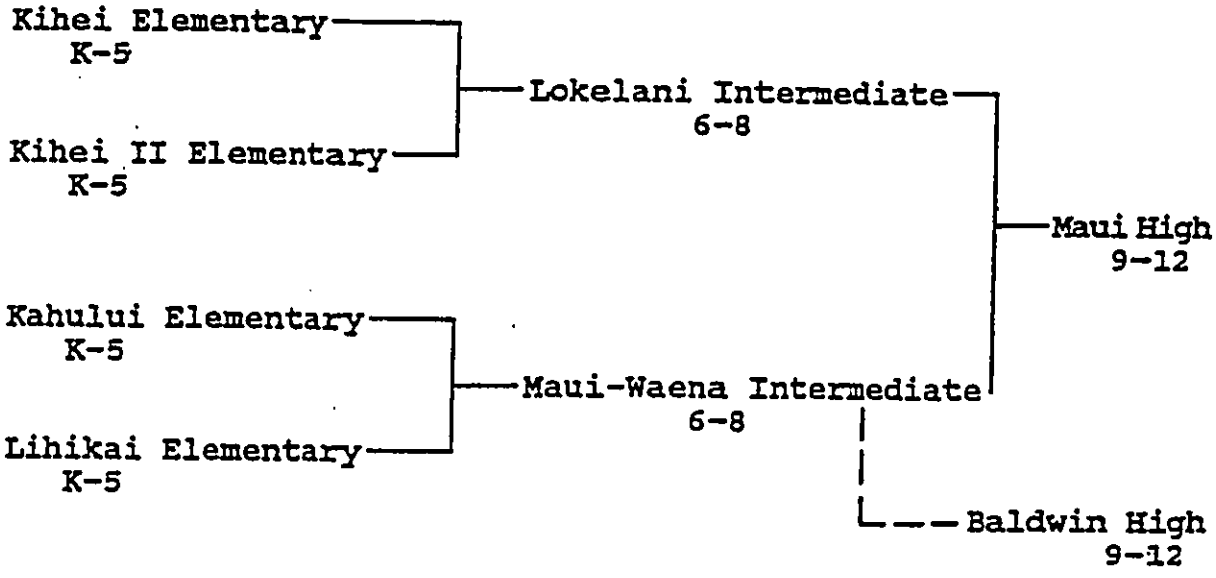
BALDWIN COMPLEX
FEEDER ORGANIZATION

EXISTING STRUCTURE



MAUI COMPLEX
FEEDER ORGANIZATION

PROPOSED STRUCTURE



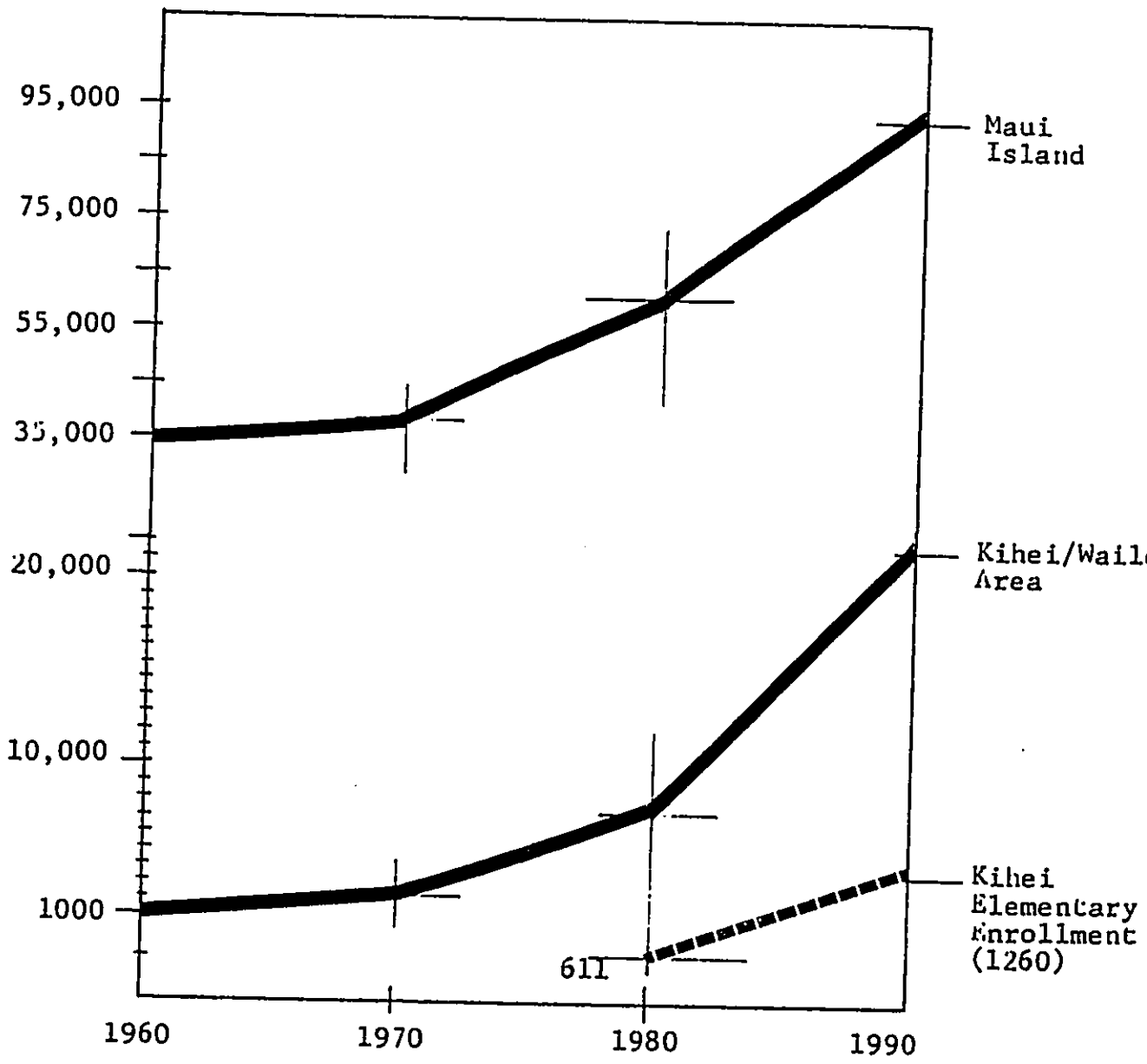
Note: Upon the opening of the Upcountry Maui High School the Kihei area will become part of the Maui High School Complex.

TABLE # 1

Continuing rapid growth is projected by county planning officials and the Department of Business and Economic Development of the State. The Kihei-Wailea area is on the leading edge of this growth, quadrupling in population between 1970 and 1980 (1,736 to 7,247) and increasing again in the 1980's by 262 - 300 % to a level of 19,000 to 23,000 people. Such growth has produced pressing demands on school facility and service needs (although the profile of the new growth exhibits a lower ratio of school-age children to adults than the Maui average).

Development activity in the Kihei area continues beyond 1990 at a rapid pace. Planned housing development is projected to bring 3,775 new units on line by June 1991. Using empirical ratios of school-age children to housing units for the Kihei area, 700 + additional elementary students will be generated by the planned development within the next year. Projected development saturation of the Kihei area is expected to produce another 800 students in this category and require an elementary capacity(when grade attrition is considered) of 1800(present capacity = 900). The existing capacity is inadequate when either short-term or long term conditions are evaluated even when grade attrition is accounted for. Following development saturation in the Kihei area, grade attrition will allow enrollemnts at two elementary schools to level off and fall within the ideal capacity ranges.

This demand picture strongly suggests the need , and desirability, of constructing a new elementary school in Kihei with a design capacity of 900 (32-40) classrooms) with a delivery date as soon in the near future as possible to relieve enrollment at Kihei Elementary School.



GRAPH 1 - Population Growth - Maui Island/Kihei and Kihei Elementary School Enrollment 1960-1990

Two other factors contribute to the need for expediting preparations for the new school: (1) the rapidity with which development is occurring, is also using up vacant land in the area which is suitable for school sites; and (2) land prices are escalating as available land becomes scarce.

C. Proposed Project:

Type of School - Elementary, K - 5

Opening Date - September,1995

Design Enrollment - 900

Ideal Enrollment - 700

Peak Enrollment - 1000

Desired Site Size - 8-10 acres

Enrollment on Opening Date - 350

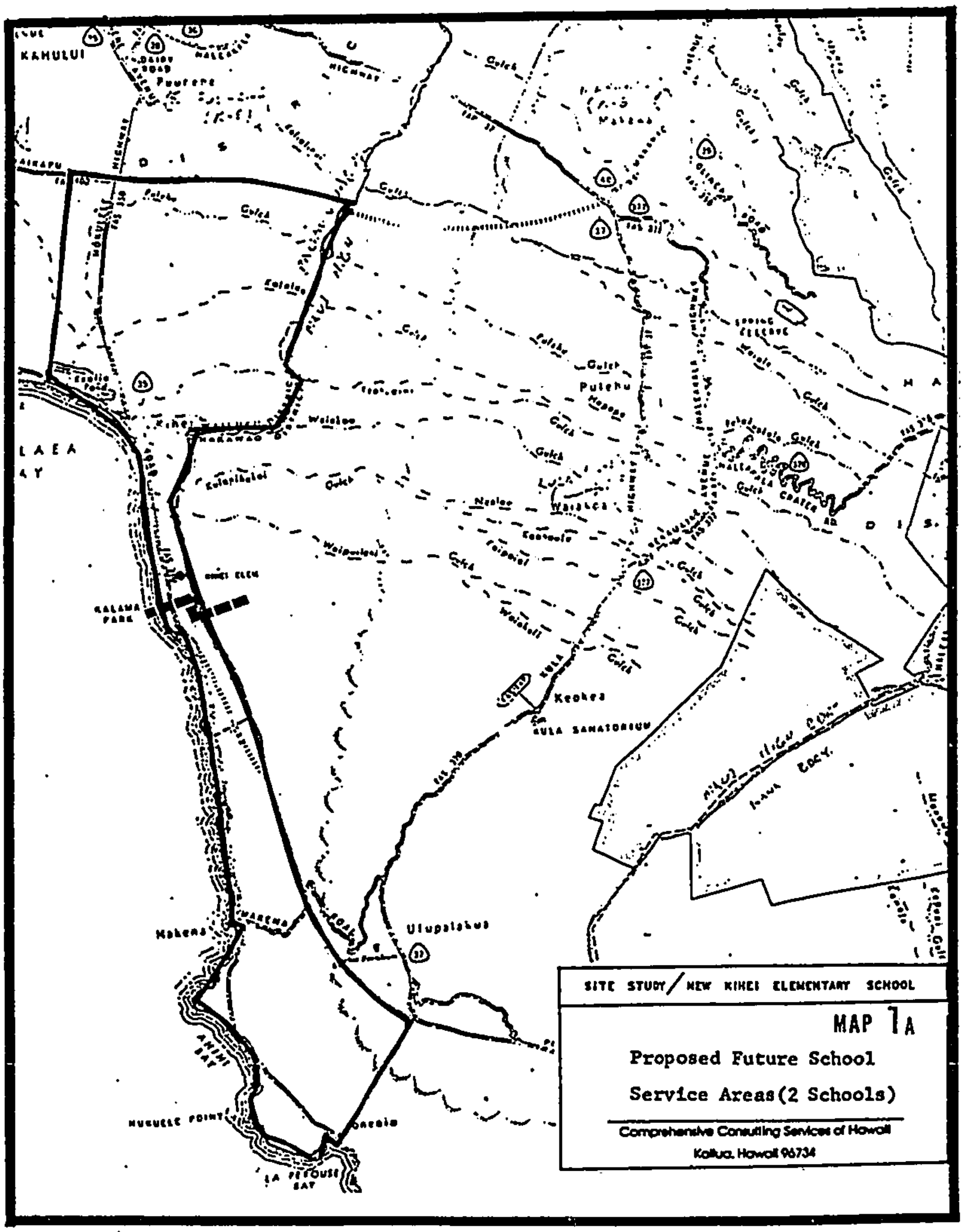
D. School Development Requirements:

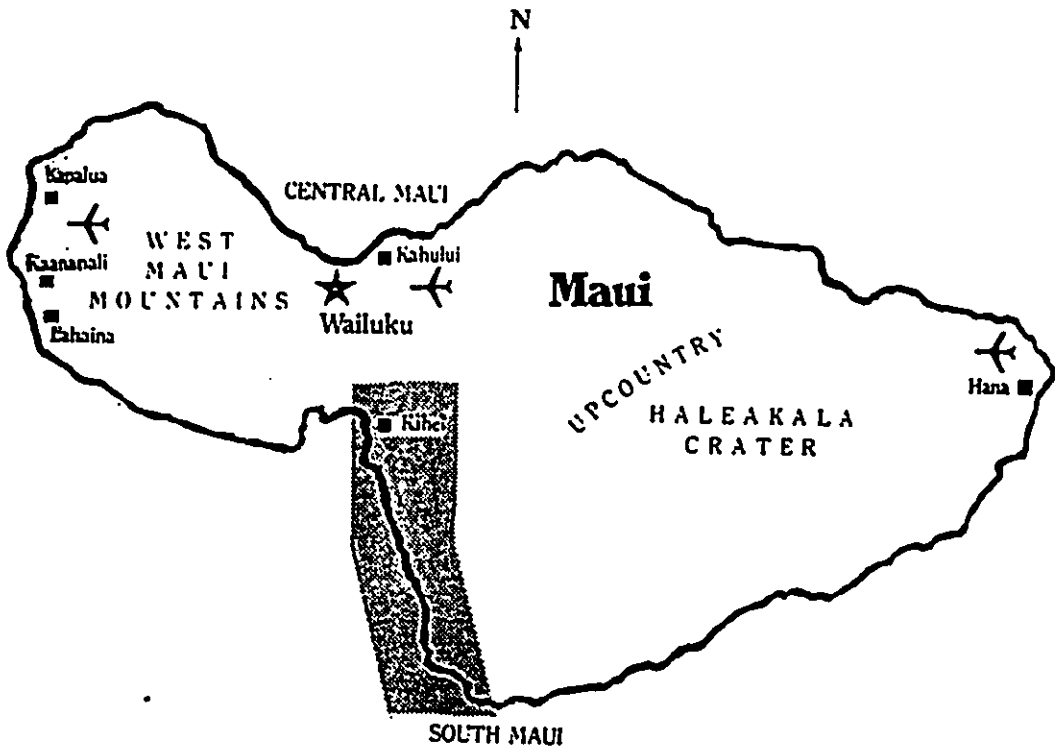
47 classrooms(39 permanent,8 portable):Cafetorium; Library; Play areas; Access roadways; Parking for 67 vehicles; Landscaping; Water; Sewer; Electric power; Telephone; Site drainage and runoff disbursed safely offsite.

II - Project Setting: (See Map # 2 for locational setting)

A. Regional Overview:

The islands of Maui , Molokai, Lanai and Kahoolawe, comprising a total land area of 1,161 square miles, constitute the County of Maui in the State of Hawaii. Maui County is the second largest County geographically in the state and the third most


SITE STUDY/NEW KIHEI ELEMENTARY SCHOOL
MAP 1A
Proposed Future School
Service Areas(2 Schools)
Comprehensive Consulting Services of Hawaii
Kailua, Hawaii 96734
KAHULUI
Keokea
KULA SANATORIUM
Ulupalakua
Makena
Pulehu
Kihei



SITE STUDY / NEW KIHEI ELEMENTARY SCHOOL

Study Area

MAP 2

Comprehensive Consulting Services of Hawaii
Kailua, Hawaii 96734

populous with 100,374 residents in 1990.

Tourism is Maui County's major economic activity followed by trade and agriculture. Scientific research diversified agriculture and marine projects have been instituted recently to help diversify the county's economic base.

The island of Maui is the seat of the county government which is organized in a Mayor-Council format.

Kahului, Wailuku, Lahaina and Kihei are major population centers on the island of Maui. The State Department of Education has the responsibility for providing public education to the residents of Maui.

The Kihei district is a narrow, relatively flat coastal plain located in the central, but leeward, side of the island along the western base of Haleakala and between Maalaea Bay and La Perouse Bay to the south. This 32 square mile area exhibits either flat or gently sloping topography rising upward from the coastline to an elevation of 200' mean sea level(msl) at Piilani Hwy. This Highway, a wide, well-designed limited access road, forms a man-made physical boundary on the mauka side of Kihei.

B. Plans, Policies and Controls:

1. State Plan: The Hawaii State Plan establishes general goals, policies and objectives providing

priority directions for the state. Such a priority direction is public education as contained in the plan policy to;

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

The proposed project is consistent with, and in conformance with, the policy and does not otherwise conflict with the with the state plan.

2. Educational Functional Plan: The State Educational Functional Plan prepared by the State Department of Education embraces the above policy and contains the following additional policy directed at, " providing a safe and secure environment for schools and libraries." The proposed project is consistent with the directions of the State Functional Plan.

3. State Land Use Designation: Under the State Land Use Law, all lands are classified as "Urban","Rural","Agricultural" or "Conservation." Within the project service area lands are primarily in the "Urban" classification(Kihei) with outlying areas(upland of Piilani Hwy.) classified as "Agricultural." South of Ahihi Bay extensive "Conservation" districts exist also.

All candidate sites are within the "Urban" district.

4. Maui County General Plan: The proposed project is consistent with the Maui County General Plan policies which seek to provide for the educational opportunities for the people; provide educational facilities and services for all residents and the goal of improving the quality of public facilities throughout the county.

a. Kihei-Makena Community Plan: This Plan establishes proposed land uses, road patterns and public facility needs for the area. It also designates a proposed school site in the Kihei area(See Site # 3). In addition the plan embraces the need for a full range of schools to improve the delivery of educational services, increase recreation, reduce transportation needs and enhance community social cohesion. The Plan commits the county to coordinate with the state of Hawaii DOE to fulfill projected school needs.

The project is consistent with these county plans and further specific relationships are covered in the Site Description and Evaluation section(Appendix A-1).

5. County Zoning: The Maui County Zoning Regulations establish the following districts in the project service area: Residential; Hotel; Commercial; Agriculture; and Public Use. Three of the candidate sites are located in residential districts which allow school uses by right. One site (Site # 3) is zoned "public use" for a school.

6. Tsunami/Flood Hazards: Much of the area in North Kihei lies within flood hazard areas as defined on Federal Flood Insurance Rate Maps(FIRM) due to low-lying terrain. In contrast, very little of the South Kihei area is subject to flooding due to the higher elevations found there(SeeMap # 3). All candidate sites are located in the South Kihei area, (designated as Zone C by FIRM,Dated July 16, 1990,ie,areas of minimal flooding) and are not subject to coastal flood.

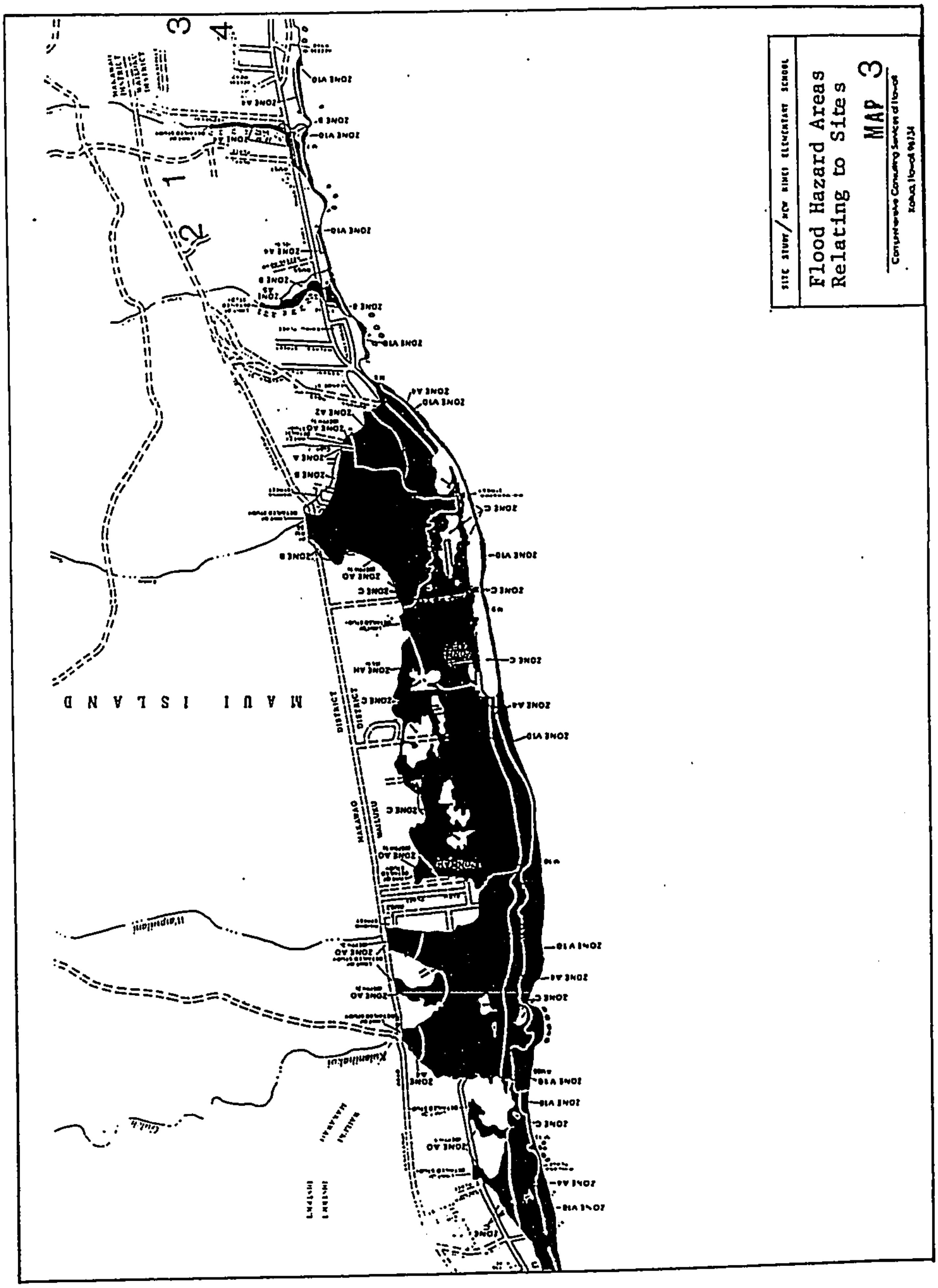
Similarly Tsunami inundation zones extend further inland in North Kihei but are confined to the shoreline area in South Kihei. None of the candidate sites are subject to possible Tsunami flooding. (See Map # 4).

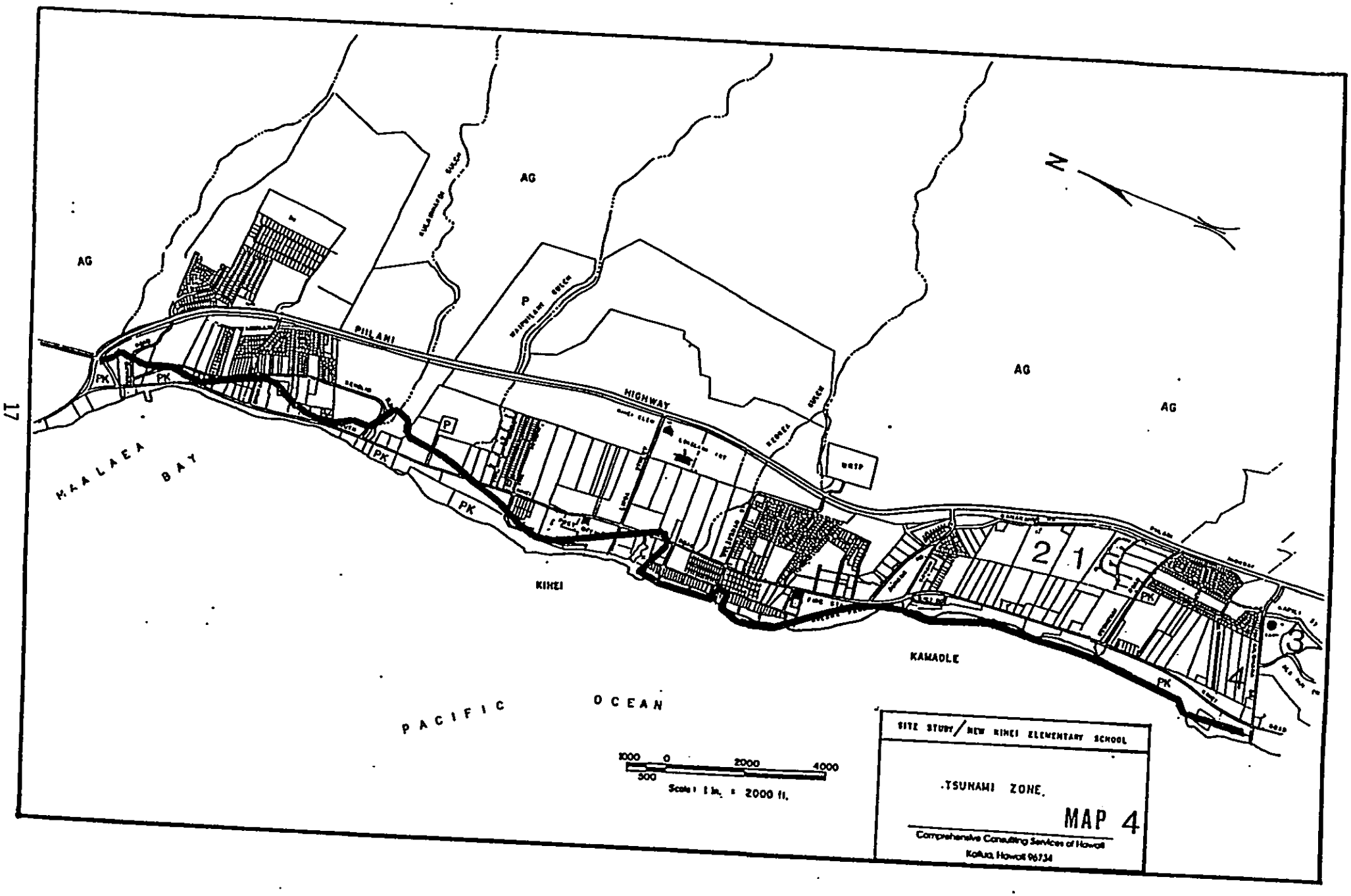
7. Special Management Area(SMA): The SMA established by Maui County under the Coastal Zone Management Statute, covers much of the project service area and extends from the shoreline to Piilani Hwy. in Kihei. All candidate sites are within the SMA.(See Map # 5).

C. Infrastructure:

1. Water: Water service by the Maui County Department of Water Supply is provided to virtually all of the Kihei area. The supply source for the Kihei area is found within the central Maui system in the Iao acquifer. Kihei usage demand draws down 7-8 million gallons per day (mgd) from the system. Kihei's water source has a sustainable yield of 20 mgd.[5] Total usage from the Iao acquifer source is at 85% of its sustainable yield.[6] The projected level of water usage by the new elementary school is in the range of 54,000 gpd or 9.5 million gallons per year. County water service is available to all candidate sites.

2. Wastewater Treatment Capacity and Sewer System: The present Kihei Wastewater Treatment Plant(WWTP), located mauka of Piilani Hwy. at Welakahao has a design capacity of 4 mgd. In 1989 demand flows reached 3.2 mgd or 80% of capacity.


SITE STUDY/NEW KIHEI ELEMENTARY SCHOOL
Flood Hazard Areas
Relating to Sites
MAP 3
MAUI ISLAND
1
2
3
4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PACIFIC OCEAN
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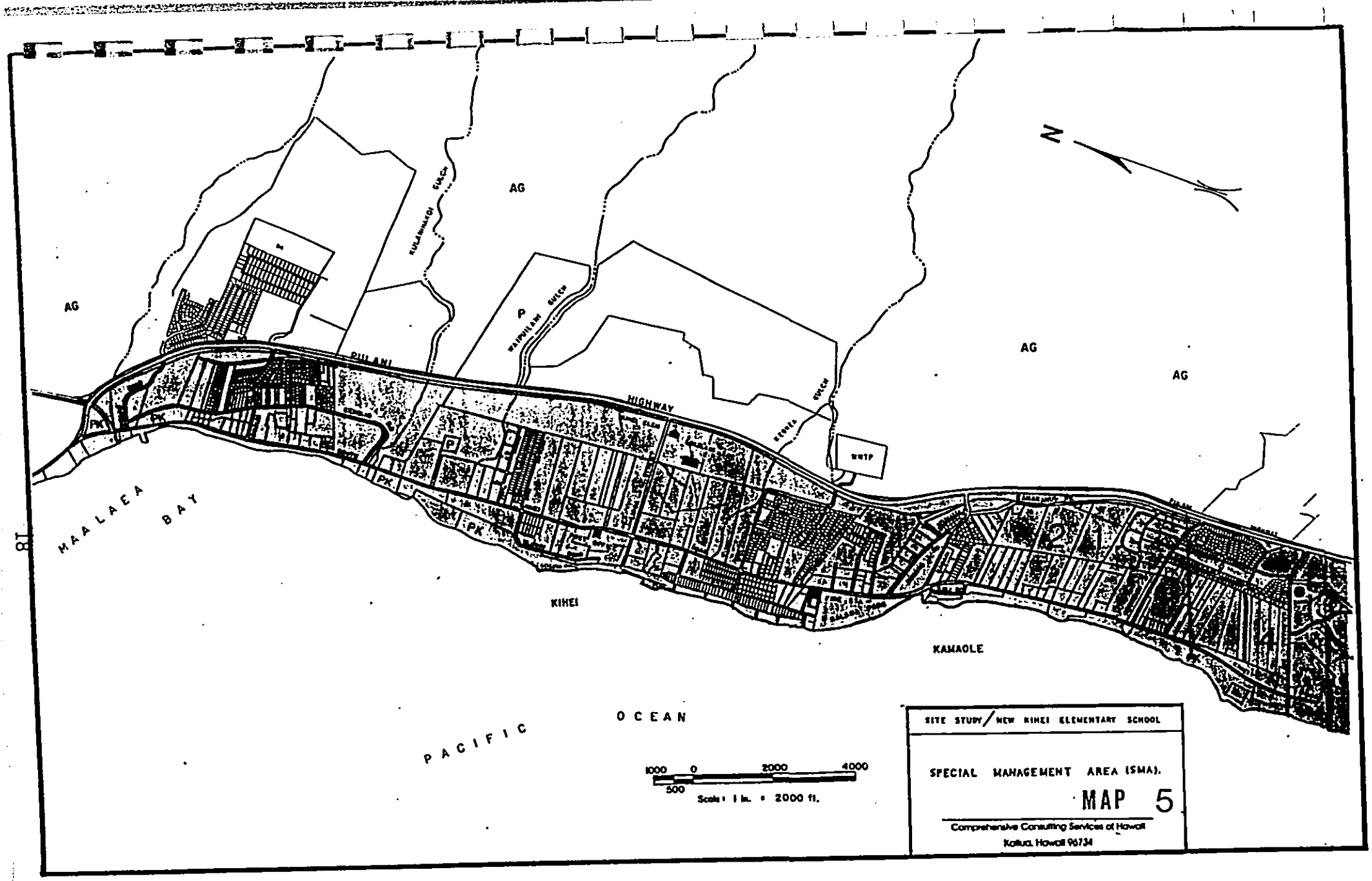
Scale: 1 in. = 2000 ft.
SITE STUDY / NEW KIHEI ELEMENTARY SCHOOL
TSUNAMI ZONE
MAP 4
Comprehensive Consulting Services of Hawaii
Kailua, Hawaii 96734



SITE STUDY / NEW KIHEI ELEMENTARY SCHOOL

SPECIAL MANAGEMENT AREA (SMA).

MAP 5

Comprehensive Consulting Services of Hawaii
Kailua, Hawaii 96734

An expansion of the WWTP is presently underway and is virtually complete. The capacity of the plant has been expanded to 6 mgd. The county is empowered to deny connection to the WWTP if expected flows exceed capacity Exemptions can be made for "improvements to the public infrastructure" and " developments necessary for the public health, safety and welfare." Also in mid 1991, the County Council allocated 74,000 gpd for public and other uses as well as 150,000 gpd for unspecified uses (with specific Council approval) from the new plant capacity. Expected wastewater discharge from the new school is in the range of 50,000 gpd or 8.75 million gallons per year.

A sanitary sewer system is available in most sections of Kihei. All candidate sites would have access to this system. Underground injection, ie, cesspool or septic tank use is not contemplated.

3. Drainage: Natural drainage in the project area generally occurs mauka-makai, ie, the up-lands draining to the sea across urbanized areas on the coastline. Several major gulches with secondary branches perform this function in the area. Almost all of the drainage channels are dry most of the year and carry water only in wet periods. Essentially 3 natural drainage channels (ie,Kamaole gulch, Liilioholo gulch and a lesser gulch system just south of Kilohana Dr.) drain surface water from the upland

to the sea in the immediate study area. The watershed area contributing to this system is approximately 13 square miles (11.5 mauka of Piilani Hwy.). In designing drainage structures to accommodate the demand flows from the area under Piilani Hwy., the State Department of Transportation used overall design discharges of 4,650 cubic feet per second(cfs)(Q50) to 6,195 cfs (Q100). (Q50 = the design discharge for a probable 50 year storm; Q100 = the design discharge for a probable 100 year storm). On an annual basis the 100 year storm has a probability of 1% and the 50 year storm a probability of 2 %. These natural drainage channels must be retained and unobstructed by development activities to accomplish the disposal of surface runoff and prevent flooding.

A county storm drainage system is in place in much of the Kihei urbanized area. However, culvert size is generally inadequate in the outfall areas of many natural drainage channels coming down to the ocean in South Kihei. Retention basins and downstream improvements may be necessary for some school sites.

4. Electrical/Telephone: Electric power in the project service area is provided by the Maui Electric Co. ,Ltd. All candidate sites have access to existing transmission lines or switchgear to provide power to the proposed school.

Telephone service is provided by the Hawaiian Telephone Co. and is available to all candidate sites.

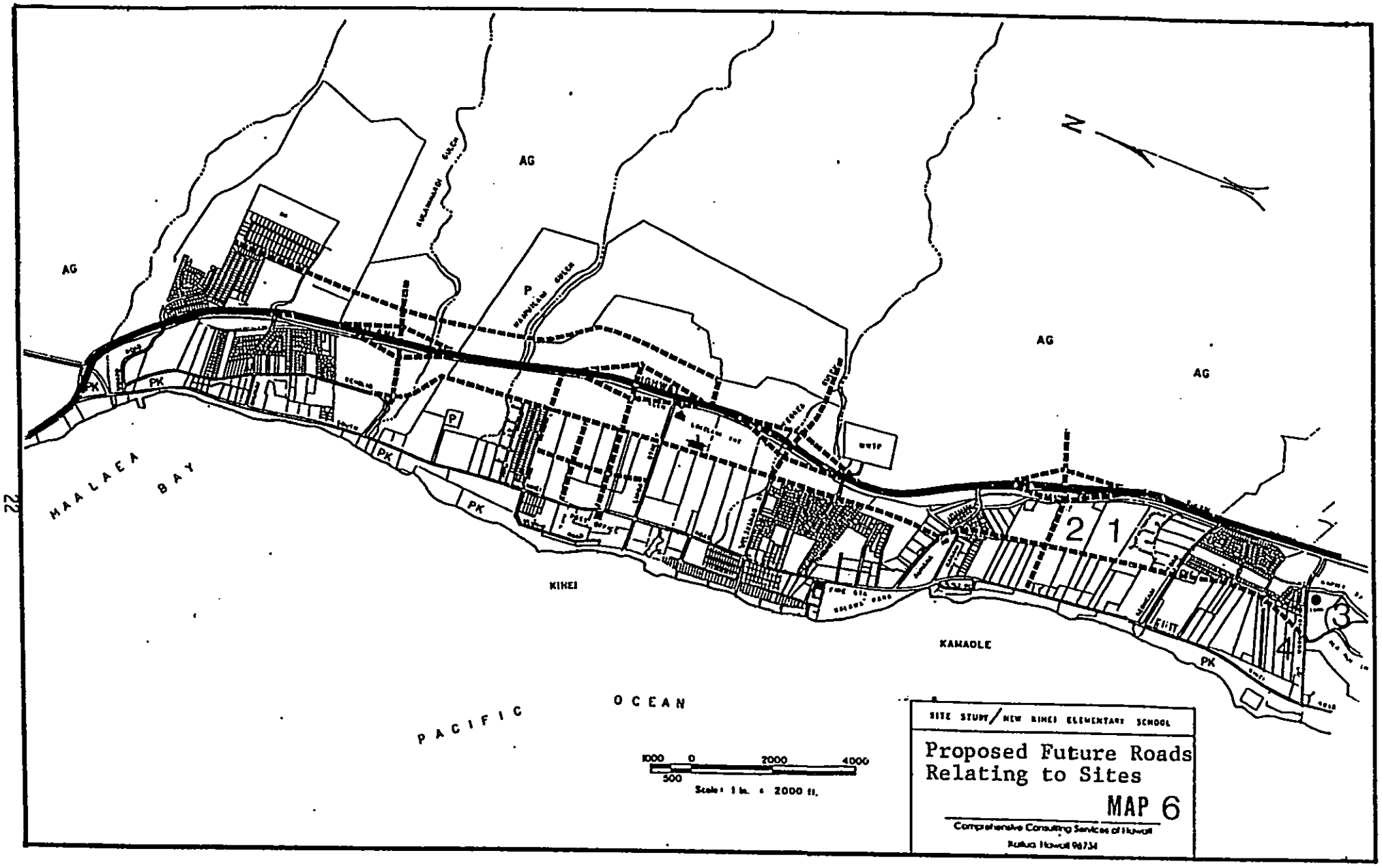
Cable TV service is available in most areas of Kihei through the Chronicle Cablevision Co. of Hawaii.

5. Gas: There is no piped system for utility gas in the Kihei area and no plans to install such a system . Gas usage, if desired, can be accomplished by the installation of storage tanks serviced by the Gas Company.

6. Roadway Network/Traffic: The road network serving the project area is well developed and comprehensive in coverage. It consists of two major north-south arteries; Kihei Road (2 lanes) and Piilani Hwy. (a wide two lane limited access highway extending from Mokulele Hwy. in the north to Wailea in the south)(and to be extended in the future); several "local" connector streets run between the two arteries and other "feeder" streets exist to form a refined road pattern of the "grid" type.

Future roads proposed by the Kihei Traffic Master Plan and as recommended by the county, are shown on Map # 6.

Traffic flows on the arterials in this network are moderate to heavy. Piilani Hwy., at Mokulele, carries 17,000 vehicles per day (vpd) and in South Kihei it carries 13,000 vpd. Kihei Road carries 13,000 to 16,00 vpd. Volumes on major connector streets range between 2,000 and 8,000 vpd.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1000 0 2000 4000
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Scale: 1 in. = 2000 ft.
SITE STUDY / NEW KIHEI ELEMENTARY SCHOOL
Proposed Future Roads Relating to Sites
MAP 6
Comprehensive Consulting Services of Hawaii
Kailua Hawaii 96734

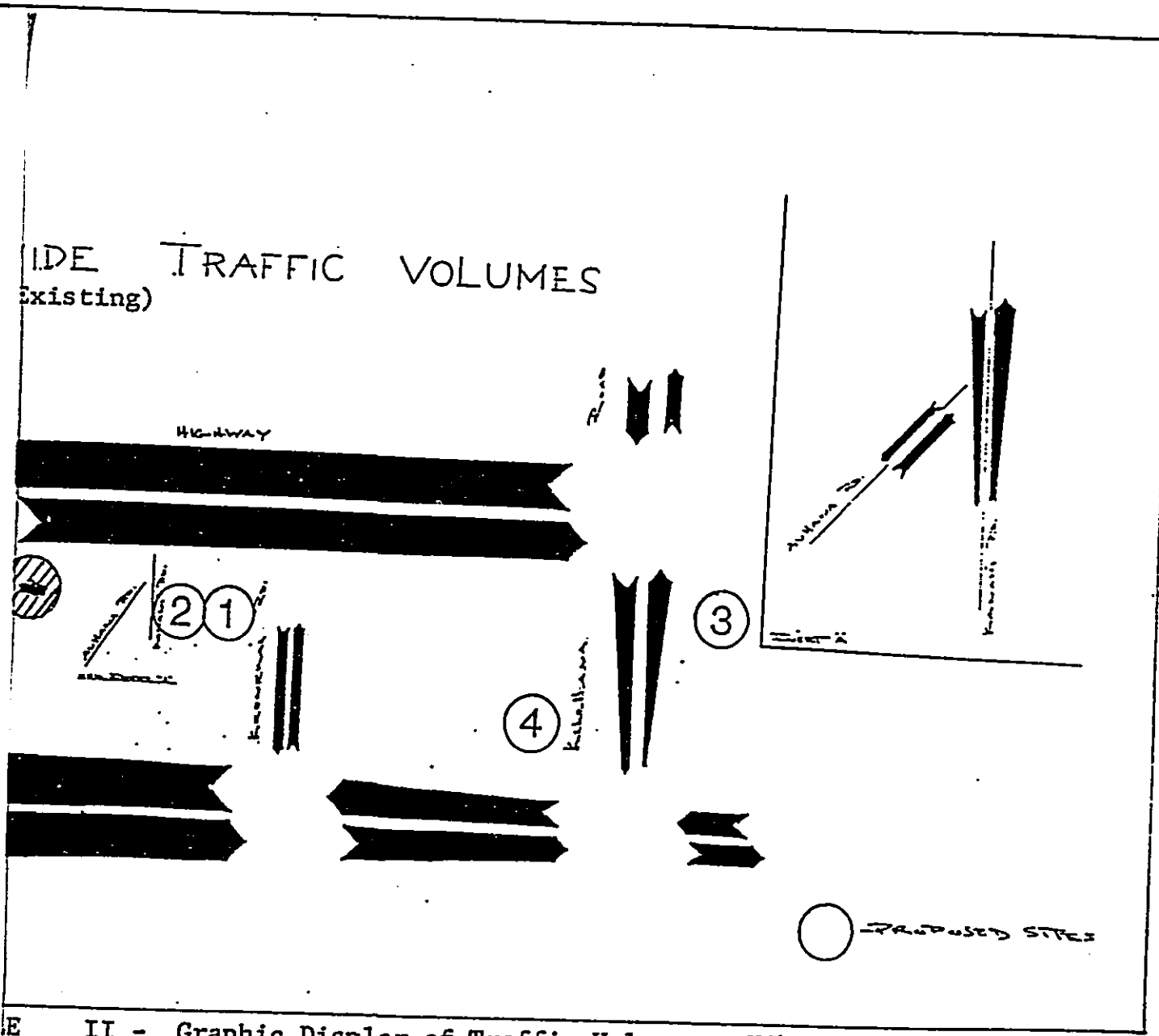
The highest volume in this range is experienced at the intersection of Piilani Hwy. and Kilohana Dr.[7] (See Table II). Traffic volumes are projected to increase 60% by 1998.[8] This generally well-developed network of roads provides the foundation for adequate vehicular circulation for school purposes. Road access , traffic impacts and accommodation for each candidate site are discussed in section V,A & B and the site description and evaluation section (Appendix A).

D. Service Area Environment:

1. Land Use: The project service area is characterized by residential(single-family, town house and apartment), commercial and hotel land uses. Proposed land uses found in the Kihei-Makena Community Plan follow the same pattern.

2. Land Ownership: There is little available county or state land in the area and none in this category for the needs of a new elementary school. Acquisition of a school site will require the purchase of 8 acres from the yet-available inventory of private vacant land.

3. Climate: Kihei's climate is sunny, semi-arid and warm. The average daily temperature of 77° reflects a range between the low 60's(pre-dawn) and the high 80's (afternoon). During the 303 days comprising the 1989-90



E II - Graphic Display of Traffic Volumes - Kihei
Band width of 1/10" = 2300 vehicles

Source: State DOT, 1989

CORRECTION

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

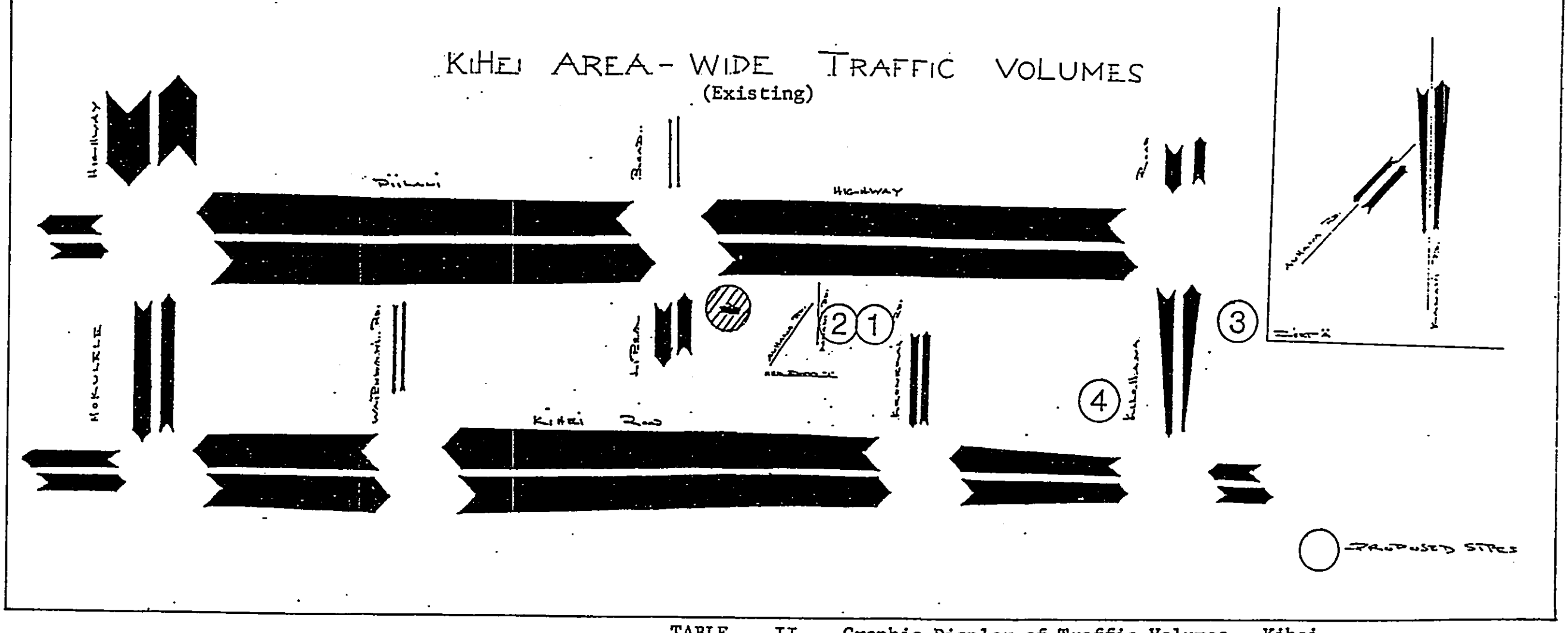


TABLE II - Graphic Display of Traffic Volumes - Kihei
Band width of 1/10" = 2300 vehicles

Source: State DOT, 1989

school year, the temperature in Kihei rose to 80° and above on 261 of those days, or 86% of the time. On the 42 days that it did not, the high temperature ranged between 74° and 79°.

Annual rainfall along the dry coastline is 10 inches (the lowest on Maui) with most of it occurring during a few "winter" storms of short duration.[9] Rainfall during a 24 hour period may reach as high as 7 inches(more than 1/2 the annual amount). On the upper slopes rainfall averages 30-40 inches annually. Ralative humidity on the lower slope averages 60-70%.

4. Flora and Fauna: Wild goats and chukars can be found on the upper slopes of Haleakala. Deer, pheasants, wild turkey, quail and grey francolin are also itinerant in the area. Major drainage streams are intermittent and do not support fish, aquatic plants or animal life.

Indigenous birds in the area include the permanent resident short-eared owl(pueo) and the migratory pacific golden plover. Other birds of foreign origin are the barred dove, spotted dove, cardinal, mockingbird and white eye. Two species of bird, the Hawaiian Coot and Hawaiian Stilt, both on the endangered list of state and federal wildlife agencies,[10] inhabit the Kealia Pond area(1 mile northwest of Kihei) and other spots in the Kihei area(a refuge for the Stilt will be preserved by the developer of a shopping center on Kihei Rd.) .

Sparse vegetation characterizes the Haleakala western slope. Natural vegetation consists of Kiawe, Haole

Koa and lowland shrubs. A dense cover of buffelgrass (Pili grass,finger grass) characterizes the lower slope and "pickelweed" (Akulikuli) is preponderant in low-lying and marshy areas along the coastline.

5. Geology: Geologically, the area is described as the coastal flank of the western slope of the massive, but extinct , volcano, Haleakala. The underlying structure of the land form is rock formed by the cooling of lava flows down the slope from the crater when active. The most recent flows(last eruption recorded in 1790), range from a few inches to a few feet in thickness at variable depths below the soil mantle(Hana series) which has built up over the years by alluvial action. Surface strata are characterized by loose sedimentary rock and the alluvial soil covering of gravel, silt, clay and loam. Coastal beaches are comprised of unconsolidated white coral sand.

6. Soils: Soils in the area are generally sandy, clayey or silty loams formed by erosion of the upper slopes and the depositing of the eroded material on the lower slopes. Soils on the Kihei uplands(2,000' inland to mauka of Piilani Hwy.) are classified in the Puuone Sand series(PZUE) and consist of grayish-brown calcerous sand in surface layers 20" thick. Cemented sand lies below this and bedrock can be found 1-1/2' - 3-1/2' below the surface layers. Such soils are characterized by high permeability(6-20"/hour); low

runoff and moderate alkalinity(ie, well drained). Upland soils in the Wailea sector(Kilohana Dr. and south) are classed as Makena loams(MXC) with stony surface complexes and bedrock 3-1/2' - 5' below surface layers. These are well drained soils also but with moderate permeability(2-6"/hour); medium runoff and moderate alkalinity. Soils on the lowlands are sandy(coral) silty, clayey and loamy also with stony complexes and are classed as the Waikoa series(WID2).

7. Archaeological/Historic Sites: The Episcopal Church on Kulanihakoi Strteet(TMK 3-9-1-12) is designated as an historic site.

   Several archaeological findings have been discovered in the Kihei area also. As part of the site selection study for this project, an archaeological inventory survey was conducted. The findings of the survey are presented in Appendix A-2.

8. Scenic Characteristics: Major scenic features in the area consist of the ocean to the west and the slope of Haleakala to the east. The urbanized area of Kihei is naturally landscaped with low trees, shrubs and ground cover.

9. Topography: Topography in the area is generally sloping from Piilani Hwy. (elevation 200' msl) to the shoreline in an east to west direction. The slope is gradual and occurs in a relatively uniform manner without severe undulations. Specific topographic conditions and elevations are discussed in the Description and Evaluation of Sites, Section(Appendix A-1).

10. Noise: Generally ambient noise in the project area is low - ie,residential areas exhibiting levels in the range of 25 - 35 decibels(dbA). A major source of noise in the area is the traffic-generated noise from Piilani Highway(to increase in constancy in the future). Heavy traffic volumes(1,000 vph and above) and travelling at 50 mph, generate a noise level of about 62 dbA at the edge of the highway. As the distance from the highway increases, the noise level attenuates accordingly. At a distance of 400' from the highway, traffic noise would drop to 52 dbA(outside a school 400' away). Inside such a school, the level would drop again to 40 dbA - even with the windows open. With windows closed, traffic noise impacts would be in the range of 32 dbA.[12] Ideal noise level design standards suggest noise levels outside of a school should not exceed 55 dbA and levels inside the school should be 40 dbA and below.[12] To meet these standards for the new school, a distance of 400' from Piilani Hwy. would be required

11. Air Quality: Ambient air quality in the project area is good and well within the state and federal clean air standards, ie, particulate matter below 150 micro-grams/ cubic meter and sulphur oxides below 1300 micro-grams/ cubic meter.[13]

12. Water Quality: Maalaea Bay is designated a class A marine water area under the water quality standards of the State, (Chapter 11 - 54, Hawaii Administrative Rules(DOH).

E. Socio-economic Characteristics:

1. Population: The resident population of Maui island has increased rapidly. It rose 63% between 1970 and 1980[1] and 48% between 1980 and 1990 to a level of 93,057.[2] Continuing rapid growth is projected. The Kihei/Wailea area is on the leading edge of this growth, its population increasing from 1,736 people in 1970 to 19,000 - 23,000 in 1990(De facto population). Approximately 1/4 to 1/3 of the de facto population is comprised of part-time residents or visitors. Some 9,974 dwelling units exist in the service area, 3,000 of which house transients/visitors.[2]

2. Employment/Income: Employment opportunities in the Kihei area are found primarily in the service industry, ie retailing, tourism, utilities, etc. The area also serves as a "bedroom" community for the Kahului/Wailuku centers of employment. Construction jobs presently top the list of opportunities due to the rapid growth occurring in the area. During 1989, Kihei reflected the 2.5% unemployment rate experienced on Maui island.

   In 1988 the per capita income for the area was $15,279 which was higher than in other counties but lower than Honolulu.[14]

3. Public Services: The Kihei area is served by a high level of public facilities and services. The existence of public water, wastewater collection and treatment and storm drainage systems has been discussed under

"Infrastructure." Other major public facilities and services found in the Kihei area are as follows:

a. Recreation: Kihei proper contains 3 major beach parks, ie,Mai Poina Oe Iau, Kalama and Kamaole. Six others are found to the south within 2.5 miles of Kilohana Dr. A county recreation center is located on North Kihei Rd. and a county playfield located on Kilohana Dr.(east) The Silversword golf course is situated mauka of Piilani Hwy. in Kihei proper and two other golf courses are found at Wailea.

b. Schools: Existing schools are limited to (1) Kihei Elementary School, East Lipoa Rd. (consisting of 32 permanent classrooms, 23 portable classrooms and with a design capacity of 900. Present enrollment is however ,1260(6th grade classes were transferred to Lokelani Intermediate School in 1990 to ease space limitations); and (2) Lokelani Intermediate School at the same location (contains 8 permanent classrooms with a design enrollment of 66 - present enrollment is 557 including the 6th graders from Kihei Elementary).

The State DOE, Maui District, provides bus transportation to all students living outside a radius of one-mile from these schools. At present approximately 900 students attending these schools are bussed. Students from the Kihei/Lokelani complex are fed into Baldwin High School under present policies.

c. Police: The Kihei area is served by three regular police patrols on all shifts with other resources on call for assistance. The patrols operate out of police headquarters in Wailuku. Discussion is underway regarding the construction of a police sub-station in Kihei located mauka of Piilani Hwy. in the northern sector of Kihei proper.

d. Fire: A Fire Department station in Kihei at Waimahaihai and Kihei Rd., houses a 1500 gpm pumper with a 1,000 gallon reserve tank. The county water and fire protection system contains over 600 fire hydrants throughout the Kihei area. In addition a 2 million gallon reservoir is located to the north at 220' msl and a 1 million gallon tank is located to the south(Kilohana Dr., at 196' msl.

e. Refuse Collection and Disposal: The County of Maui provides solid waste collection to residential properties in Kihei on a once-a-week basis. Refuse from this area is disposed of at the central Maui landfill.

f. Public Transportation: There is no public transportation system available in the Kihei area (or on Maui island).

III - Potential Site Identification:

A. Site Study Methodology: The initial site search was guided by the following parameters which were developed from conditions found within, or pertaining to, the project service area:

1. Anticipate future growth patterns in order to locate a new school in strategic proximity to the final locus of such growth.
2. Provide flexibility for establishment of a new school service area to effectively serve student demand without excessive bussing.
3. Avoid the more intensive competition for available land in the North Kihei sector which limits the opportunity for site acquisition there.
4. Inventory all vacant land in the South Kihei area (from existing school south to and including Kilohana Dr.)
   a. Discard vacant land under active development.
   b. Discard vacant land which is the subject of approved subdivision.
   c. Vacant land mauka of Piilani Hwy. is low priority.
   d. Vacant land within one mile of the existing school is given low priority to prevent service area overlap and to preserve maximum walking potential.

Thirteen potential areas were inventoried in accordance with these guidelines.

B. Evaluation Methodology:

1. Minimum Site Criteria: The following minimum site criteria prescribed by DAGS form the foundation of an evaluation process by which the suitability of potential sites can be measured and compared:

   a. Acreage: - 6 acres(if next to park) - 8 acres

   b. Shape: - Length to width ratio not to exceed 2.5 : 1; c. Tsunami: - not in inundation zone; d.Flood: not within a major flood plain; e. Landslide:- not subject to potential landslide or erosion; f. Traffic: avoid traffic hazard areas; g. Timing: - sites should be reasonably available; h. Location: - within ultimate school service area; i. Displacement: - avoid mass relocation of people; j. Historical:- avoid destruction of historic sites and buildings.

   Seven of the initially potential sites did not meet these minimum criteria and were discarded.

2. Candidate Site Criteria: Additional criteria were applied to address the conditions in the project service area and to allow detailed evaluation of the six remaining sites as follows:

   Location: Good = Within 1.5 to 3.5 miles south of existing Kihei school.

   Fair = Within 1 to 1.5 miles south of Kihei Kihei school.

   Poor = Within 1 mile of Kihei school or more than 3.5 miles from the school.

Size: Good = 6 acres(next to 2 ac.park) - 8 acres

Fair = 6-7 acres not next to park

Poor = More than 8 acres

Topography : Good = Level and uniform terrain

Fair = Moderately undulating terrain

Poor = Heavily undulating terrain

Slope : Good = 1 - 3 % average slope

Fair = 4 - 10% average slope

Poor = Slope over 10%

Shape : Good = Length to width ratio of 1 : 1 - 1.6 - 1

Fair = 1.7 : 1 - 2.0 : 1

Poor = 2.1 : 1 - 2.5 : 1

Vehicular Access : Good = Site accessible from several directions over existing roads

Fair = Access limited to 1 or 2 directions

Poor = New access roads are required

Pedestrian Access : Good = Safe access over sidewalks and/or un-obstructed shoulders within 1 mile radius of site

Fair = Access intermittently obstructed within 1 mile radius of site

Poor = Access within 1 mile radius of site generally obstructed or problem-prone

Traffic Accommodation : Good = Traffic volumes on access roads under capacity and likely to retain surplus capacity

Fair = Traffic volumes on access roads likely to exceed capacity in future

Poor = Volumes on access roads over capacity now.

Planning and Zoning: Good = Long range plans and existing zoning embrace school use.

Fair = Conditional zoning permits are required.

Poor = Not planned or zoned for school use or land use boundary change required.

Historical: Good = Site not designated for historic preservation.

Fair = Site is designated for some preservation but elements can be preserved by school use.

Poor = Historic preservation prohibits school use.

Flood Free: Good = Not within a high flood hazard area shown on Federal Insurance Rate Maps(FIRM).

Fair = Near,or within a 5 - 10' elevation of a flood hazard area.

Poor = Within a flood hazard area or near one within 1 - 5' elevation.

Natural Drainage: Good = Soils and topography afford rapid surface water disbursement.

Fair = Soils and topography allow retention of minor surface water on site.

Poor = Soils and topography allow major surface water retention on site.

Tsunami Free: Good = Not within, or near, any tsunami inundation zone.

Fair = Site elevation is within 10' of, and in the path of a tsunami zone extension.

Poor = Site elevation is within 5' of, and in the path of tsunami zone extension.

Geologic Stability: Good = No contemporary evidence of past or potential landslide, mudslide, major erosion or lava flow.

Fair = Observed conditions indicate some potential for landslide, mudslide, major erosion or lava flow.

Poor = Contemporary evidence of instability

Proximity to Storm Drainage System: Good = 0 - 750' to usable system

Fair = 750' - 1500' or usability conditional

Poor = 1500' + or usability doubtful

Proximity to County Water System: Good = 0 - 600' to connection

Fair = 600' - 1,000'

Poor = 1,000' +

Proximity to Sanitary Sewer: Good = 0 - 600' to connection

Fair = 600' - 1000' "

Poor = 1000' + "

Proximity to Electricity: Good = 0 - 300'

Fair = 300' - 1, 000'

Poor = 1,000' +

Proximity of Telephone: Good = 0 - 500'

Fair = 500' - 1500'

Poor = 1500' +

Site Development & Infrastructure Cost: Good = Lowest cost amongst sites

Fair = Medium cost range amongst sites

Poor = Highest cost amongst sites

Air Quality: Good = Conforming to state's clean air standards; Particulate matter below 150 micro-grams/ cubic meter; sulphur oxides below 1,300 micro-grams/cubic meter.

Fair = Intermittent reading above these levels.

Poor = Continuous readings above these levels.

Noise Free (Present & Future): Good = Projected noise levels less than 55 dbA outside school and 40 dbA inside.[12] (400' + from Highway).

Fair = 300' - 400 ' from Highway.

Poor = Within 300' of Highway.

Archaeology: Good = No, or incidental, findings, or findings which can be easily mitigated.

Fair = Moderate findings requiring preservation and/ or transfer.

Poor = Extensive findings or burial grounds.

Scenic Beauty: Good = Site has unique intrinsic features (trees, plants, streams, vistas, etc.). which would enhance school setting.

Fair = Site has only routine features

Poor = Site lacks any featues of scenic beauty.

Displacement: Good = Requiures no displacement of people or structures.

Fair = Requires displacement of structures.

Poor = Requires displacement of people and structures.

Availability: Good = Single owner, one parcel, no development permits.

Fair = Single owner, one parcel, development plans in early stages or multiple owners or parcels, no permits.

Poor = Multiple owners or parcels and existing development permits.

Bussing Costs: Good = 0 - $242,200 (Short term).

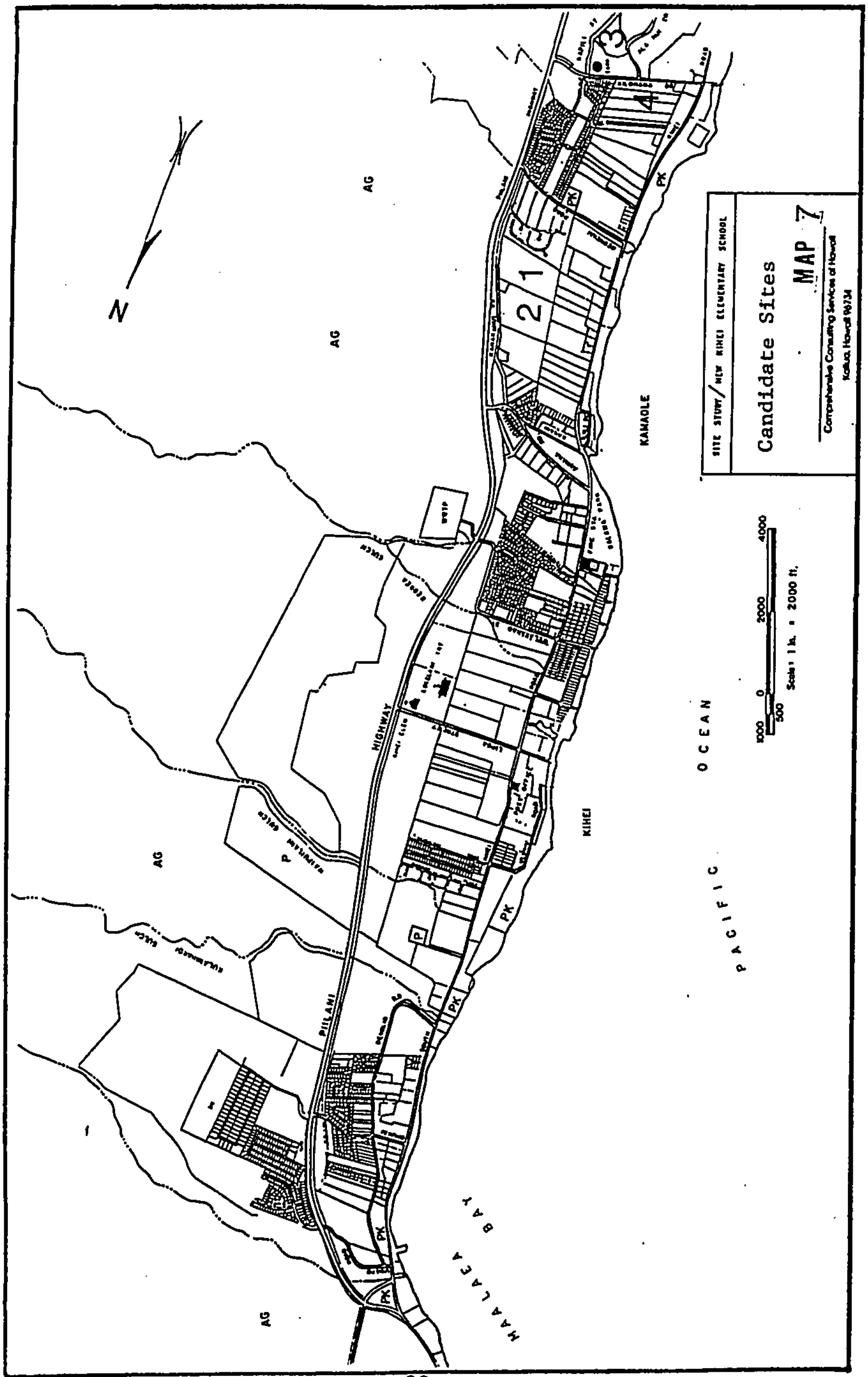
Fair = $242,200 - $333,125

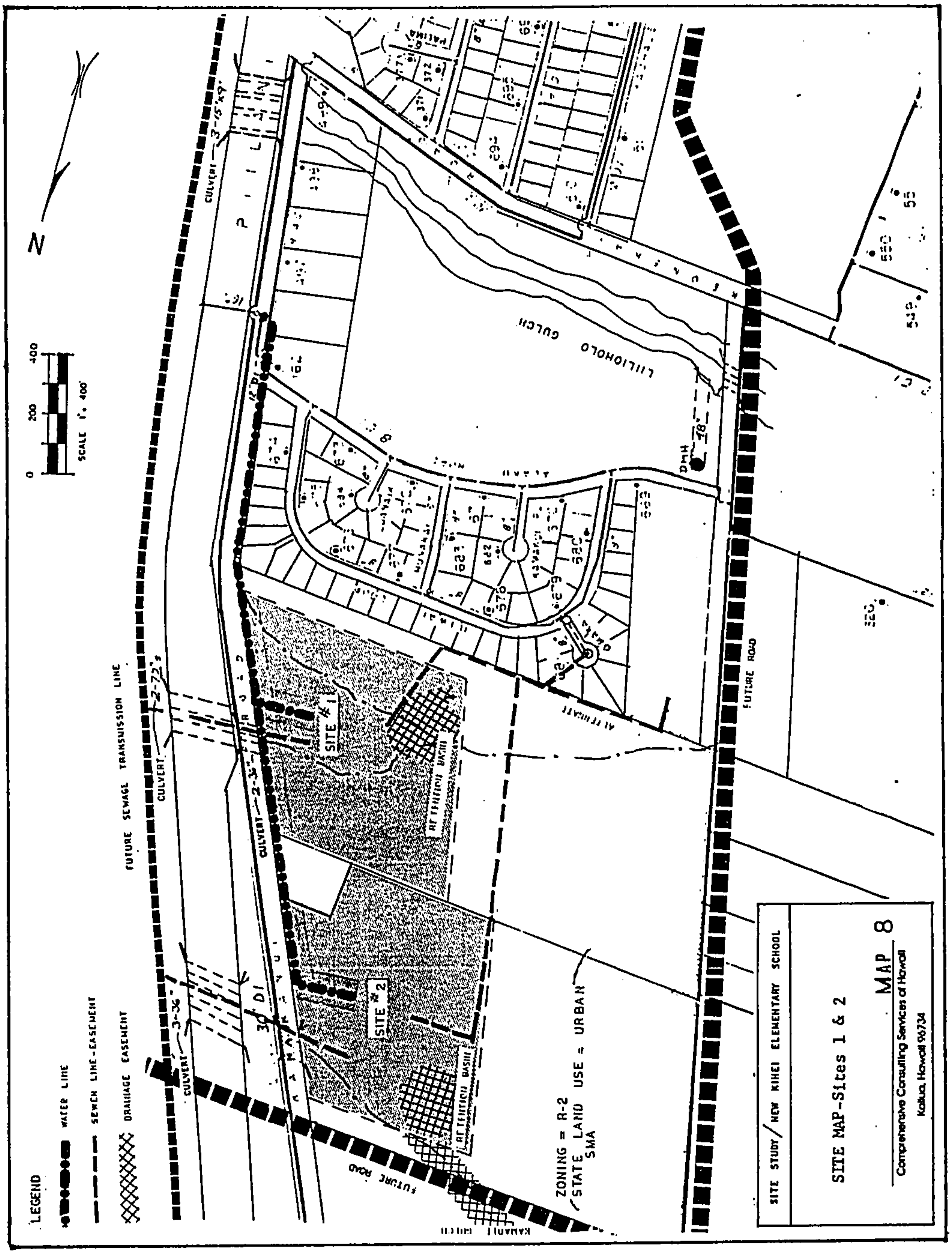
Poor = above $ 333,125

IV. Evaluation of Candidate Sites: (See Map # 7 for locations)

SITE # 1 - TMK 3-9-19-4 (28.57 acres) located on Kanakanui Rd. 1/3 mile north of Keonekai and abutting the Alaku Rd. subdivision on the north side. The site is characterized by uniform and gradual sloping topography, well drained soils isolation from traffic hazards, fair proximity to infrastructure and open availability on the real estate market. Some improvements to walking access and a widening of Kankanui Rd. fronting the site would be required here. Downstream complications in drainage disposition would require use of a retention basin for site runoff. Minor archaeological sightings can be mitigated and proper setback from Piilani Hwy. needed to attenuate noise from the road. Development costs for the site fall into the medium range for this project. Acquisition cost should reflect the existing market level. See Appendix A-2.

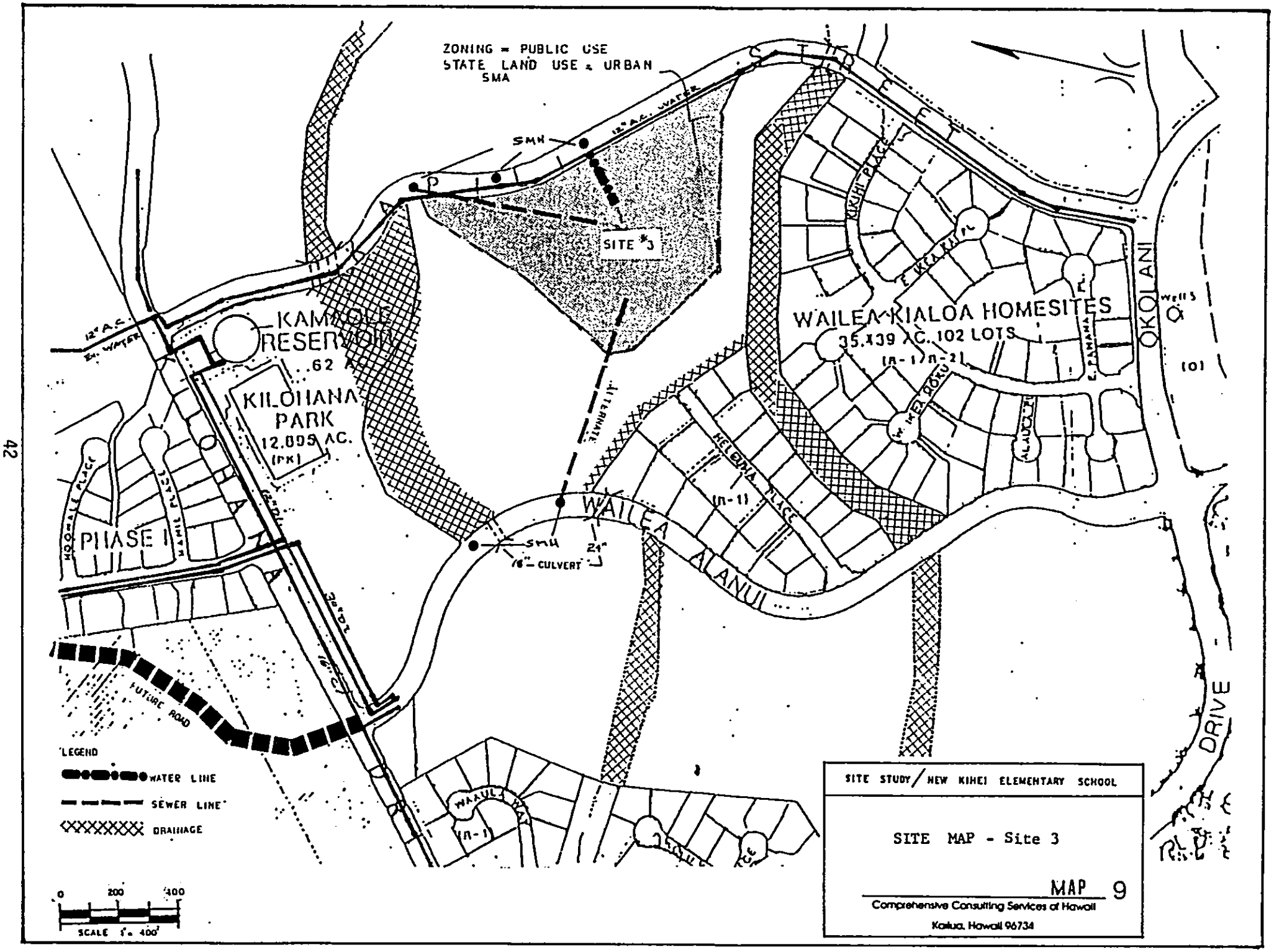
SITE # 2 - TMK 3-9-19-6 (25.43 acres) located on Kanakanui Rd. immediately adjacent to site # 1 on its north side. The site is characterized by uniform and gradually sloping


SITE STUDY / NEW KIHEI ELEMENTARY SCHOOL
Candidate Sites
MAP 7
Comprehensive Consulting Services of Hawaii
Kailua, Hawaii 96734
Scale: 1 in. = 2000 ft.
N
AG
PIILANI
HIGHWAY
KIHEI
KAMAOLE
PACIFIC
OCEAN
PK
1
2
3
4


LEGEND
WATER LINE
SEWER LINE-EASEMENT
DRAINAGE EASEMENT
N
0 200 400
SCALE 1" = 400'
FUTURE SEWAGE TRANSMISSION LINE
CULVERT
SITE #1
SITE #2
RETENTION BASIN
ZONING = R-2
STATE LAND USE = URBAN
SMA
FUTURE ROAD
ALTERNATE
LIILIOHOLO GULCH
SITE STUDY / NEW KIHEI ELEMENTARY SCHOOL
SITE MAP-Sites 1 & 2
MAP 8
Comprehensive Consulting Services of Hawaii
Kailua, Hawaii 96734

topography(the most level of all candidate sites), well-drained soils, isolation from traffic hazards and sparse vegetation. Some improvements to walking access and a widening of Kanakanui Rd. fronting the site(over 900') would be required here. Although Kamaole gulch is accessible for site runoff, it usability is conditioned on the acceptance of downstream owners. Minor archaeological sightings can be mitigated and a 400' setback from Piilani Hwy is needed to attenuate traffic noise. The area is the subject of a county SMA approval for residential development but subdivision approval has not been obtained yet. In July 1991,the parcel became involved in a foreclosure action against the present owner. Because of the distance to existing infrastructure, development cosats here would be the highest amongst project sites. Acquisition costs should reflect the existing market level plus development costs to date on a pro-rated basis. See Appendix A-2.

SITE # 3 - TMK 2-1-8-42 (23.19 acres) located off Kapili St. just south of Kilohana Dr. and between Kapili St. and Wailea Ala Nui Dr. This site is zoned for public use as a school site designated in the Wailea Development Plan. The site is characterized by its proximity to a full range of existing infrastructure(the best amongst all candidate sites), ready availability, conformance to county planing, well drained soils and scenic beauty(at elevation 260' msl, the site has a commanding view of the region to the south, north and west). Some moderately steep slopes exist on the outer edge of the probable school location(the domed plateau on the Kapili St. level). These slopes drop into moderately deep gulches on either side of the site.



SITE STUDY / NEW KIHEI ELEMENTARY SCHOOL

SITE MAP - Site 3

MAP 9

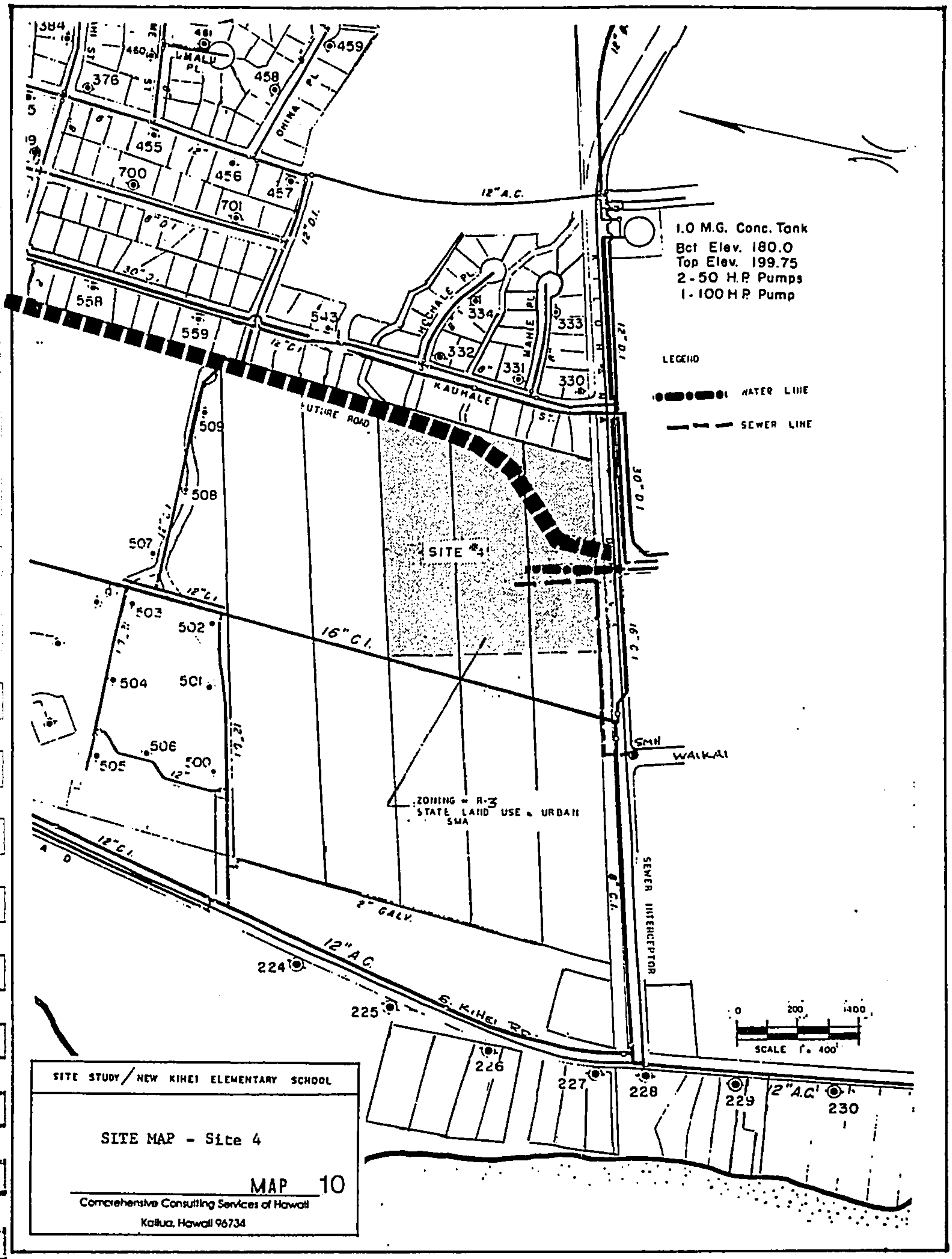
Comprehensive Consulting Services of Hawaii

Kailua, Hawaii 96734

Development costs here would be in the low-medium range (the lowest of all candidate sites) notwithstanding the probability of encountering sub-strata rock. Acquisition costs should reflect the present market level. See Appendix A-2.

SITE # 4 - TMK 3-9-4-129(portion); 75(portion); 76(portion)
An open space total of some 19 acres is available off Kilohana Dr.on the north side between Kauhale and Kihei Rd. The site is characterized by undulating topography with moderate slopes and a major drainage spillway on its north side. It has well-drained soils and good proximity to existing infrastructure A proposed future road might reduce the size of the site on the mauka side and its availability is complicated by the need for partial acquisition from three owners as well as the need to acquire 12 acres here to anticipate the loss of 3 acres to the future road. Development costs here would be in the medium range for project sites and acquisition cost would reflect present market level for residential areas.
See Appendix A-2.

SITE # 5 - TMK 3-9-38-028, a total of 16.14 acres is located at the Kihei/Mauka corner of Kilohana Dr and Piilani Hwy. The site fronts on Kilohana Dr. and is about 3 miles from the existing Kihei school.
Topography is undulating and a medium-steep gulch runs along its north edge in a mauka-makai direction. The mauka portion of the site abuts Piilani Hwy. and noise attenuation would require setting the school back at



SITE STUDY/NEW KIHEI ELEMENTARY SCHOOL

SITE MAP - Site 4

MAP 10

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least 400' from the Highway. This noise constraint combined with the rough topography restricts the area for practical school development to about 7 acres. Other criteria ratings are also in the "Fair" and "Poor" category and due to these circumstances, the site was dropped from further consideration.

SITE # 6 - TMK 2-2-2-1, includes a one-mile stretch of vacant land mauka OF Piilani Hwy. between the Kihei WWTP and the northern boundary of the Research Park at Keonekai Rd. Gently sloping topography(2-3%) characterizes the area which is sparsely vegetated except for a dense cover of buffelgrass, 24" high. Infrastructure in the area is lacking and Piilani Hwy. poses a formidable barrier to an elemenatry school to serve Kihei(ie, all students are located makai of the Highway). Virtually all of the students would have to be bussed across the Highway for safety reasons. The area also lies in the "Agricultural" classification of the State land use designations and would require a boundary change for school development. Due to the "Poor" ratings exhibited by this site in the critical criteria areas mentioned above, the site was also dropped from further consideration.

Sites # 1,2 and 4 are zoned " residential" which allows school use as a matter of right. Site # 3 is zoned for" public use" due to its designation as a "school site" on the Wailea Development Plan. A summary rating of Sites # 1-4, by the criteria enumerated in section III, B-2 is presented in Table III. A detailed descriptioon of each site according to these factors is presented in Appendix A-1.

B. Cost Considerations:

1. Acquisition: Recent land sales and the factors affecting urban land economics in the project area indicate that a fair market value for 8 acres of vacant land here will be in the vicinity of $2,000,000 to $3,000,000. Pro-rated reimbursement for to-date development costs expended would be an additional factor for site # 2.

2. Site Development and Infrastructure: Estimated cost levels are provided for basic off-site and on-site infrastructure and site preparations. Table II A presents a summary of these costs. Appendix A-2 provides an explanation of how the costs were calculated.

3. Bussing: Student bussing costs can vary from site to site depending on (1) the site's location within the service area and (2) whether future growth is to occur within, or outside of, the walking radius. When considering site location within the service area, candidate sites can be combined into two groups having similar characteristics. Sites 1 & 2 are in the same relative location as are Sites 3 & 4. In group I(Sites 1 & 2),85% of new population growth will occur within the walking radius. In group II, (Sites 3 & 4) , 43 - 48% of the new growth will occur within the walking radius. Consequently bussing costs will vary accordinly and the generalized cost estimates resulting are shown in Table II B.

Costs (in millions of dollars)

	Water*	Sewer	Drainage	Road Improvements**	Elec/Tel	Grading	Total
Site # 1	.0672	.0995	.1038	.105	.0125	.0565	.4455
Site # 2	.1176	.141	.1748 A .1286 B	.1652	.0125	.040	.6511 .6049
Site # 3	.014	.042(.070)	.027	-	.0125(.050)	.096	.1915(.257) .3325***
Site # 4	.0224	.063	.036	-	.0125	.160	.2939

*Add one-time county water storage charge - approximately $ 25,000

**Traffic Impact Fee Ordinance exists for Maui, Kihei/Makena area, "Publically owned governmental buildings are exempt - Sec 14.68.20

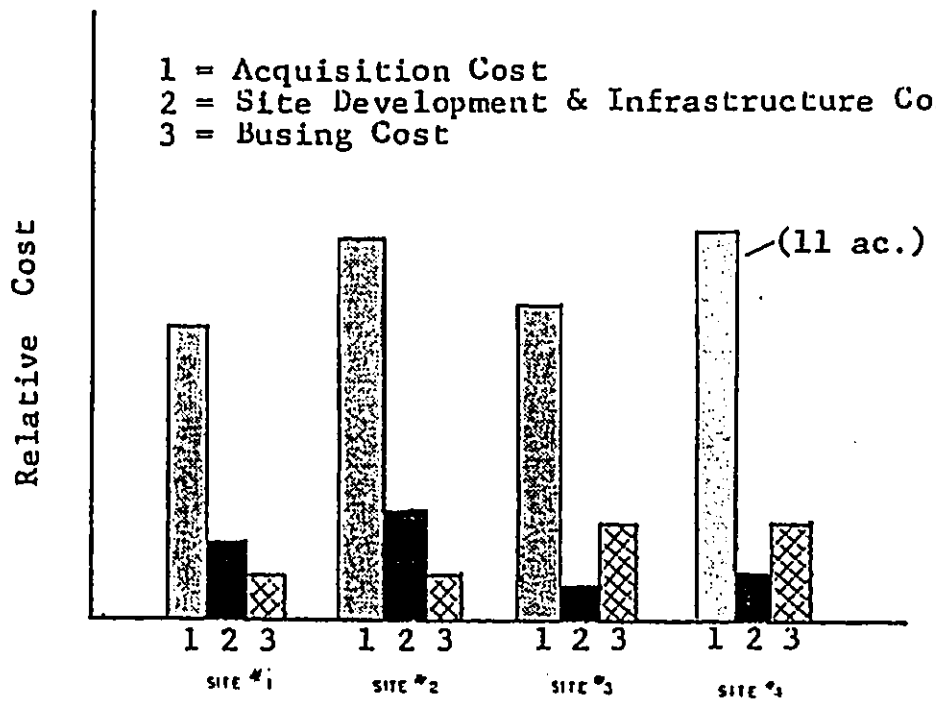
***Probable cost level for Site # 3 is sub-strata rock encountered

TABLE II A - Site Preparation and Infrastructure Costs(Estimates)

TABLE II B

Bussing Costs*	Group I(1 & 2)	Group II(3 & 4)
Immediate(1994-96)	$ 60,550/year	$ 121,600/year
Long Term(2005 or when school reaches design level of 900)	131,250/year	350,000/year

* Based on DAGS unit cost standards of $ 173/bus/day(adjusted for 1991 Dollars



GRAPH II - Cost Considerationbs

TABLE III
SITE RATING SUMMARY

Rated Factor	Site # 1	Site # 2	Site # 3	Site # 4
Location	Good	Good	Fair	Fair
Size	Good	Good	Good	Poor
Topography	Good	Good	Fair	Fair
Slope	Good	Good	Fair	Fair
Shape	Good	Good	Fair	Good
Vehicular Access	Good	Good	Good	Good
Walking Access	Fair	Fair	Good	Good
Traffic Accommodation	Good	Good	Good	Good
Planning & Zoning	Good	Good	Good	Good
Historical	Good	Good	Good	Good
Special Management Area(SMA)	Good	Good	Good	Good
Flood Free	Good	Good	Good	Good
Natural Drainage	Good	Good	Good	Fair
Tsunami Free	Good	Good	Good	Good
Geological Stability	Good	Good	Good	Good
Storm Drain Proximity	Poor	Fair	Good	Good
Water Service Proximity	Fair	Poor	Good	Good
Sewer Proximity	Fair	Poor	Good	Good
Electricity	Good	Good	Good	Good
Telephone	Good	Good	Good	Good
Site Development Cost	Fair	Poor	Good	Fair
Air Quality	Good	Good	Good	Good
Noise Free	Good	Good	Good	Good
Archaeology	Good	Good	Good	Good
Scenic Beauty	Fair	Fair	Good	Fair
Displacement	Good	Good	Good	Good
Availability	Good	Fair	Good	Fair
Bussing Costs	Good	Good	Fair	Fair
Total "Good"	22	21	23	19
"Fair"	5	4	5	8
"Poor"	1	3	0	1

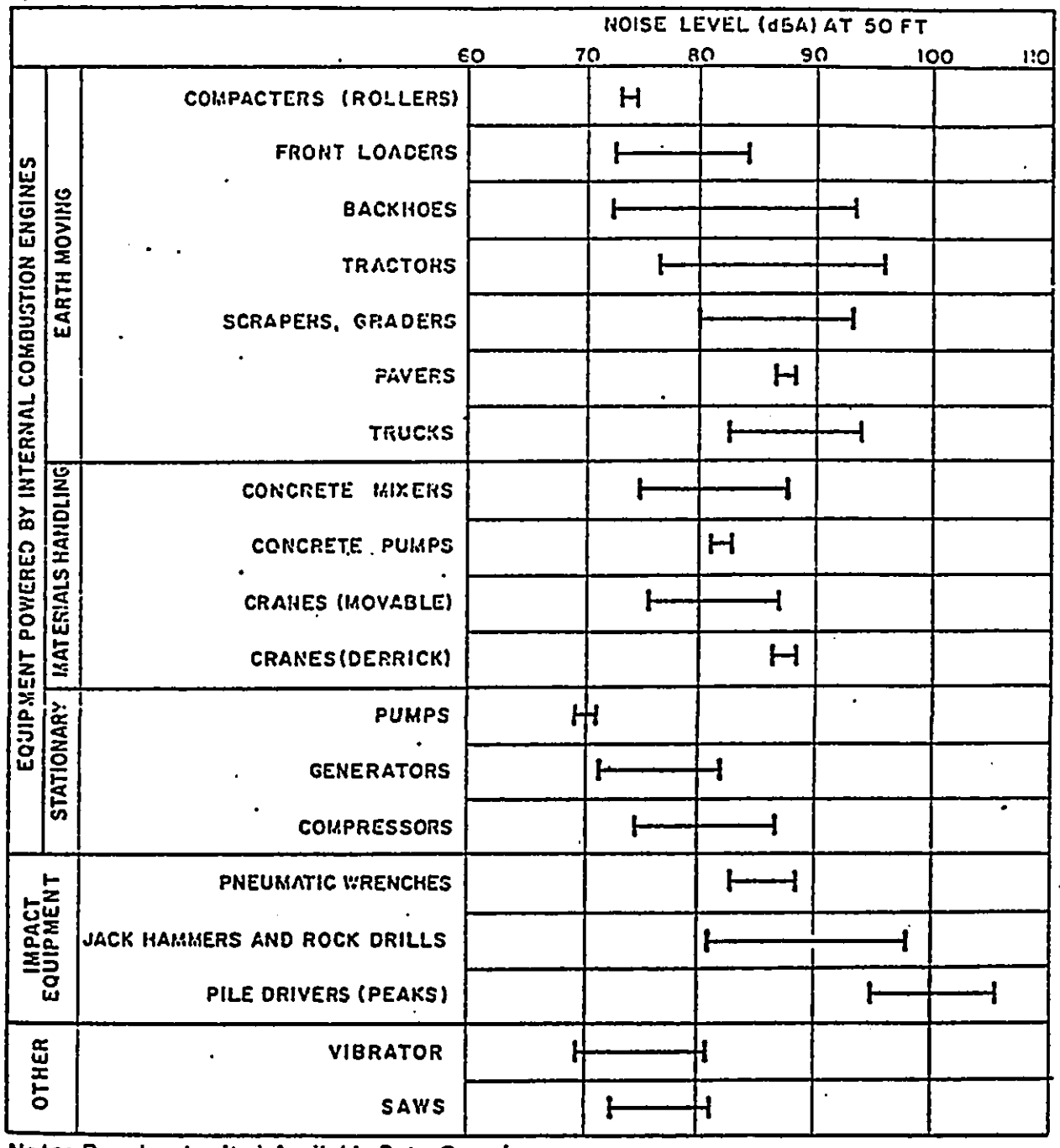
V. Probable Environmental Impacts and Mitigation Measures:

A. Short Term:

1. Construction Impacts: Construction impacts will take the the familiar form of noise, traffic, air quality reduction, erosion, disturbance of trees, shrubs and grass, archaeological disturbance, safety hazards and the production of construction wastes.

a. Noise: Construction equipment will unavoidably raise the ambient noise level in the vicinity of the selected site during construction. Table IV indicates the general range of noise levels generated by construction equipment at a distance of 50'. As distance from the noise source increases experienced noise levels will drop. As seen from the table, construction noise levels range between 68 and 95 dbA(pile drivers not contemplated).Ambient noise levels at candidate sites range between 25 and 55 dbA with an estimated average of 35 dbA. 65 dbA to 85 dbA is considered "Loud" on a practical rating scale. 85 to 95 dbA is considered "Very Loud" but not "Deafening" or " Painful."[18]

Construction noise impact will be least at Site # 3 due to its isolation from nearby residences(800' minimum); low on Site # 2(800-1,000' with the exception of one residence); higher on Site # 4(400' minimum) and Site # 1



Note: Based on Limited Available Data Samples

TABLE IV

Noise Levels of Construction Equipment

(300' minimum). Even on the latter 2 sites the distance to residences affords noise attenuation of 10 - 12 dbA.

No mitigation measures beyond the regulated reasonable times of day for construction work are indicated.

b. Traffic: Additional traffic from construction activity will impact the candidate sites as follows: Site # 4 -moderately; Site # 3 - moderately; Sites # 1 & 2 - only slightly.

No mitigation measures beyond routine control for safety purposes is indicated.

c. Reduction of Air Quality: Impacts on air quality caused by construction activities would be experienced as follows: Site # 4 - moderate (Few residences downwind); Site # 1 - moderate (residences abutting site on south); Site # 2 & 3 - no appreciable impact(essentially no residences within range).

No mitigation measures beyond routine dust control are indicated.

d. Erosion: Erosion due to grading and site preparation would be fairly uniform and low risk on all sites due to the nature of soils and slopes involved. No appreciable impact is foreseen and no mitigation measures beyond conformance with

county grading requirements and good construction practice are indicated.

e. Water Quality: Turbidity in Maalaea Bay is higher than usual for coastal waters in Hawaii.[9] Consequently it will be important to control discharges emanating from construction activities even though all candidate sites are a minimum of .3 miles from the coast.

This prospect will be controlled by the use of interceptor ditches and settling basins on the site during construction along with other measures to conform with state and county erosion control and water quality standards.

f. Flora/Fauna: All sites support a varying degree of sparse vegetation(primarily buffelgrass and Kiawe). No rare or endangered species of plant or animal is found on any of the candidate sites. No appreciable loss of flora/fauna will occur due to site development on any of the candidate sites. Site # 1 contains the most potential for retention of desirable natural landscaping(ie, denser Kiawe of 25' heights). However the removal of all buffelgrass for the selected school site is desirable to eliminate the brush-fire hazard posed by the grass in the dry climate.

No mitigation measures are indicated.

g. Archaeological Disturbance: Minor archaeological sightings have been made on candidate sites. They consist of: Site # 1 - rock mounds, terrace and midden; Site # 2 - boulder platform, artifacts midden scatter and a possible shrine; Site # 3 - a rock wall; Site # 4 - two rock walls. The archaeological survey classes the findings as insignificant except for the possible shrine(See full discussion in Appendix B).

Preservation of the possible shrine on Site # 2 is recommended and otherwise monitoring during construction will afford avoidance of disturbance or keep it to a minimum.

h. Safety Hazards: No significant safety hazard stemming from conditions at any candidate site during construction is foreseen

i. Construction Wastes: The production and storage of construction wastes would present impacts uniformly to all candidate sites. Only routine impacts are contemplated and the contractor will be required to make suitable arrangements for waste disposal and site clean-up. No mitigation measures are indicated.

2. Economic:

a. Selection and acquisition of a site in the project area would remove 8 acres of land from the private

inventory and from the county property tax base Such impact poses an initial depletion of the present property tax base ($11 billion in 1990) in the range of . 0053%($623,000) to .025% ($2.9 million). The continuing growth of the Maui County tax base (5% per year,1983 -1988 and 25% per year, 1988-1990) readily outpaces such a depletion and no net loss will ever occur. The acquisition of a site will require a public expenditure in the range of $2 to $3 million although development contributions may help to mitigate the impact of cost on public money resources.

Construction of the school would employ,or continue to employ workers in the construction fields and provide economic opportunities for material and equipment suppliers. When completed, the facility will provide jobs for some 50 - 57 people and continuing opportunities for suppliers of goods and services.

No mitigation measures are indicated.

B. Long Term Impacts: (Primary)

1. Flora/Fauna: No rare or endangered species of flora or fauna exists on any candidate site. Any loss of vegetation or disturbance of animal life will be mitigated by the landscaping of the new school area and the re-intro-

duction of birds and animals on the enhanced site. No other mitigation measures are indicated.

2. Social: No long term adverse social impacts are foreseen. Many beneficial impacts are contemplated such as: the timely provision of an adequate facility to meet growing enrollment demands in Kihei; the effective delivery of educational services to citizens; the relief of the over-capacity usage of existing Kihei Elementary School; and the creation of additional public educational resources.

   No mitigation measures are indicated.

3. Public Health & Safety: Long term adverse impacts on public health and safety could accrue if the siting of the school and its construction were pursued without regard to conditions which might pose hazards. Through the selection and EIS process, such potentials can be recognized and avoided An appreciable concern in this category is found on Site # 3 in regard to the steeper slopes on the outer edge of the site and the gulches below. Although these conditions pose hazards to small children they can be mitigated by the provision of fencing, school design and/or security control. Other potential hazards are posed by the prospect of water retention basins on Site #1 and 2. Fencing and other security control measures mitigate the hazard when open water is stored in the basin. Theoretically the basin could be full 1% of any year (or 1.75 days during any school year). In reality, 100 year rainstorms do not occur annually. Lesser storms would fill the basin only partially. Based on Kihei's rainstorm pattern, safety measures would only be required for 4-6 days per year.

4. Displacement: The construction of a school on any one of the candidate sites would not involve displacement of people or structures.

5. Infrastructure: The proposed project action would produce no adverse impact on existing infrastructure or the need for additional infrastructure. The school can be comfortably accommodated by existing facilities as follows:

   a. Roads: Sites # 3 & 4 require no new access roads or offsite road widening. Sites # 1 & 2 require widening of Kanakanui Rd. fronting the site (more for convenience than necessity).

   b. Water Supply and Service: Water use demands from the new school will be in the vicinity of 54,000 gpd for the school year(175 days). This is not a significant draw-down on the supply which is measured in millions of gallons per day and should fall easily within the allocations of water use made by county officials for public facilities. The actual draw-down will be less initially until the school enrollment reaches the design level. Connection to the county water system is available at all candidate sites with varying degrees of distance.

No mitigation measures are indicated except adherence to practical water conservation measures wherever possible.

c. Wastewater Treatment Capacity and Service:

Projected wastewater discharge from the new school will be in the range of 50,000 gpd for the school year(175 days). Since the capacity of the Kihei WWTP is measured in terms of millions of gallons per day and has recently expanded its capacity by 50%, the school's wastewater discharge is not significant. Initially the discharge will be less until the design enrollment of 900 is reached. These levels of flow can easily be accommodated in the allocations for the new WWTP capacity set by the County Council in 1991 as follows: 74,000 gpd for public and other uses; 150,000 gpd for unspecified uses(with Council approval). In addition exemptions can be made for "public infrastructure improvements" and # developments necessary for the public health, safety and welfare."

No mitigation measures are indicated.

d. Storm Drainage: Surface water runoff from the new school on an 8 acre site will be relatively insignificant in terms of the total runoff from the area and amount to a 25-30% increase in runoff from an area of about 100,000 square feet made impervious by building and site development(an addition of some 2.5 cfs). Discharge

from Site # 1 would be added to that now arriving from up-country and passing under Piilani Hwy. through 2 -72" culverts just mauka of the site(design discharge,Q100= 550 cfs). Drainage from the site would be retained on the site in a basin for delayed release downstream.(the natural channel serving site #1 now outfalls in a parking lot on South Kihei Rd. Drainage from Site #2 could be added to Kamaole gulch(its natural channel to the north). 3- 36" culverts under Piilani Hwy. lead to the site on the north side(design discharge,Q100 = 295 cfs) and subsequently lead to Kamaole gulch. A retention basin for storage of runoff from the site and its delayed release is an option also.Drainage from Site # 3 would be added to that locally produced from some . 06 square miles and drainage from Kapili St. These runoffs drain to natural channels bracketing the site and which are preserved downstream in the Wailea Development Plan. Drainage from Site # 4 would be added to that from up-country coming under Piilani Hwy. in 2-66" culverts (design discharge, Q100 = 380 cfs) coursing to Kihei Rd. in a natural channel on the north boundary of the site. Potential downstream impacts will be mitigated by avoidance or improvements. The design plan for the school will verify appropriate detailed schemes for the disposal of runoff such that it will not adversely affect downstream properties. All sites require grading to effect proper finish drainage. Grading for this purpose is considered minor for Sites # 1,2 and 3 and more extensive for Site # 4. Mitigation measures as discussed.

e. Electric Power: Adequate electric power capacity and connections are available at all candidate sites without long range impact on capacity or future generation. Site # 4 requires the longest run for connection, ie, 400'.

f. Telephone: Telephone service is readily available to all candidate sites without appreciable impact on capacity or future service. Site # 4 requires the longest run for connection,ie, 400'.

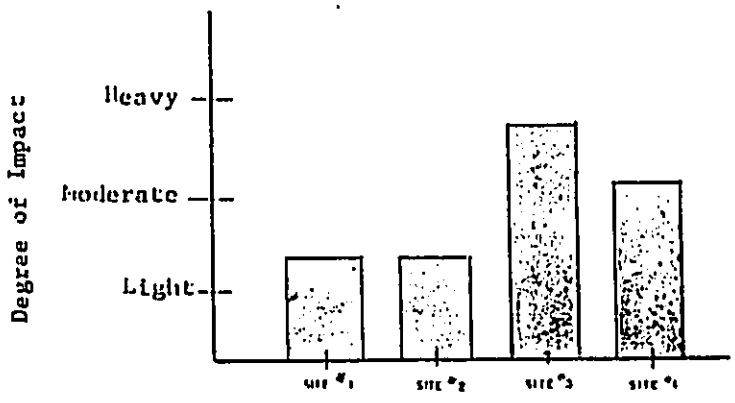
6. Traffic: Traffic generation from the new school is projected at 400 vehicles per day(school day) when enrollment reaches the design level of 900, 3 or 4 years following its opening. Initial enrollment is projected at 350. Traffic generatiion includes staff service, bussing for about 1/2 of the enrollment and family transportation for some students(based on empirical data from two existing elementary schools). This level,400 vpd, is a relatively minor impact(Kihei Rd. carries 13,000 vpd and E.Lipoa Rd. some 6,400 vpd). While the frequency of vehicles travelling a roadway is a factor, the volume related to the capacity of the roadway is a better measure of saturation, possible congestion and conflict with pedestrians. Most 10' wide road lanes can support a capacity of 400 vehicles per hour(vph).[16]

Consequently, a traffic congestion concern would only accrue if the school's ulltimate 400 vpd were added to an already congested area or if future traffic projections threatened the school area with over-capacity volume.

Roads in the vicinity of Sites # 1 and 2 are not threatened

with present or potential over-capacity traffic volumes. Kilohana Dr., at its intersection with Piilani Hwy. does reach near-capacity levels at peak hours presently. These peak hours(6:15 - 7:15 am and 3:30 - 4:30 pm) do not occur at school travel times. Also this heavy peak hour volume decreases as traffic progresses makai on Kilohana Dr. Because of this, the traffic impact from Site # 3 would be the heaviest at the intersection of Kilohana and Kapili St. The next heaviest impact would be produced by Site # 4-lower Kilohana Dr. School traffic from Site # 3 would experience occasional congestion at the intersection of Kilohana with Kapili St. School traffic from Site # 4 would experience less congestion at its access with Kilohana. New roadways planned for the Kihei area are intended to provide sufficient capacity for projected volume increases and would particularly relieve Kilohana Dr. No appreciable impacts are foreseen for school traffic coming from Sites # 1 & 2.

In addition, as growth peaks out in the future and as elementary students move out of the school system, enrollment will level off below the design level at the new school thus decreasing the traffic impacts over the long term.



GRAPH III Relative Impact of New School Traffic(Short and Long Term)

7. Removal of Land From Inventory and Tax Rolls: The action will require the removal of 8 acres of land from the private inventory and from the county tax rolls(property tax). The primary and secondary long term impacts of this removal have been discussed under Short Term Economic Impacts,Section V,A-2a

8. (Secondary Impacts)

   a. Social: Secondary social impacts from the development of operation of a new school in the Kihei area will occur but all such impacts appear to be in the beneficial category. These impacts include, the reduction of social stress afforded by the timely delivery of needed facilities to serve public demands; and the long term enhancement of society through education.

9. (Cumulative Impacts)

   a. Social: Cumulative impact considerations here also fall into the beneficial category, ie, the school's contribution to an adequate and comprehensive public facility base to foster and serve a progressing society.

   b. Traffic: The school's traffic impact has been evaluated in relation to both (1) the existing traffic and circulation pattern in the project area and in the vicinity of all sites; and (2) future traffic conditions and road patterns in the project area and in the vicinity of all sites as projected by The Kihei Traffic Master Plan(Reference # 8) in terms of the cumulative conditions of the future created by growth and the effects of growth and development. The study

projects traffic volumes and flows for 1998 and 2008 and proposes a system of new collector and feeder roads (See Map # 6) to adequately handle the 2008 traffic.

Even if this road system is not in place by the time the new school reaches its design capacity(say 2000), no adverse traffic impacts are foreseen cumulatively at Sites # 1,2 and 4. School traffic from Site # 3, ie, at the intersection of Kapili St. and Kilohana Dr. would experience some congestion(on the fringes of the peak hours). By 2008, school traffic here would experience general congestion until new feeder roads(maukamakai) were installed. Otherwise no cumulative traffic problems are foreseen.

VI - Alternatives to the Proposed Action:

A. No Action: The " no action" alternative should be socially unacceptable. The existing Kihei Elementary School is operating at enrollment levels far above its design capacity and has been for 2-3 years. In 1990,the 6th grade classes were moved into Lokelani Intermediate School and the capacity of that school will be threatened in 1992. Serious social impact will occur if the situation is allowed to persist. The onset of such impact would be immediate(1 to 2 years) and continue over the long term until remedied. Avoiding any social impact appears to require that a new school be delivered as soon as possible.

B. Expansion of Existing School: Both the temporary expansion of Kihei School and the expansion by utilizing Lokelani School have already been closed out as alternatives to the proposed action. Kihei Elementary has 23 portable classrooms

in use and its 6th grade classes have been moved into Lokelani. Permanent expansion of Kihei Elementary School is not a strategic alternative because its location would not be in the locus of new growth(requiring excessive bussing) and also would overcrowd the exsiting site.

C. School District Reorganization: There is only one existing elementary school and one Intermediate school in the Kihei complex. The capacity of these two schools is 1200 serving a demand of 1600. Because of this the prospect of reorganization within the present service area does not exist. Any reorganization of districts outside the service area (which now contains 32 square miles) would involve excessive bussing. Even if there is capacity elsewhere which could be "loaned" to Kihei, the required bussing renders the alternative unrealistic.

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

A. Short Term Effect on Environment: The acquisition of a site for a new school will usurp 8 acres of land from the private inventory and the county tax rolls. Beyond that, short term utilization of environmental resources is relatively passive as discussed herein. School construction will produce a new public resource - the alternative to which probably would be use of that land for residential development. The prospect that the land resource to be devoted to the school would otherwise be preserved in its natural state is remote.

B. Enhancement of Long Term Productivity: The social need, and value, of providing a new elementary school is Kihei has been discussed. The productive contribution to society by properly providing for the education of our children is immeasurable and long term in nature. To accomplish this, the land resource is not destroyed, merely shifted to public use and remains a timeless resource for the future. The realization of such a social enhancement for such a small commitment, or shift, of an environmental resource is demonstrably productive.

VIII - Irreversible and Irretrievable Commitments of Resources:

A. Although the commitment of land for a school site is relatively irretrievable, the devotion of the land resource to a public facility is not considered an adverse impact. As discussed above, the land resource will continue to exist productively.

B. This phase of the action involves no use of non-renewable environmental resources. Subsequent phases will utilize non-renewable resources in the form of fuel and metallic ores.

C. The unavoidable short-term impacts of construction activities have been discussed.

D. There are no unresolved issues for this phase of the action at this point.

IX - List of Necessary Approvals:

1. Acceptance of Final EIS by Governor

2. Limited subdivision approval by County of Maui to partition an 8 acre site from the whole parcel at Sites # 1,2,3 and 4.(It may be desirable to acquire entire parcel at Site # 3). Acquisition of drainage and sewer easements at Sites #1 & 2.* Land Court recording if Site # 3 partitioned.

3. SMA Development permits from County of Maui on Sites #1,2,3 and 4.

4. Water connection permits from County of Maui

5. Wastewater treatment plant and sewer service permits from County of Maui.

6. Storm drainage disposition approval from County of Maui.

7. Building permit and grading permit, County of Maui

* private easements - in favor of state not county

TABLE V

REFERENCES

1. Data Book, State of Hawaii, 1989,DBED

2. 1990 Decennial Census, Bureau of the Census,U. S. Department of Commerce, January 1991

3. Letter from Planning Director, County of Maui, to Principal, Kihei Elementary School, 1990

4. Data Book, State of Hawaii, 1990

5. Technical Report, Water Use and Development Plan, County of Maui, December 1989

6. Honolulu Star Bulletin, November 1, 1990, Partial Building Moratorium Declared on Maui, page A-7

7. Traffic Counts,Kihei, Maui - Maui District DOT, State of Hawaii

8. Kihei Traffic Master Plan, County of Maui, Department of Public Works Austin, Tsutsumi, October 1989

9. Proposed Kihei Drainage Project,EIS,1980

10. Chapter 124, Hawaii Administrative Rules, DLNR, Exhibit 2

11. Soil Survey of Kauai, Oahu, Maui, Lanai, Molokai and Hawaii Soil Conservation Service, U. S. Department of Agriculture, 1972

12. Highway Noise - A Design Guide for Highway Engineers, Highway Research Board, National Academy of Science, # 117, 1971

13. Hawaii Air Quality Data,January 1985 - 1988, Department of Health, State of Hawaii

14. Op Cit # 4

15. The Water System for Fire Protection- Various Schools in the Maui District, Saito Engineering, April 1982,(DAGS # 05-16-7285)

16. Highway Capacity Manual, Highway Research Board, National Academy of Science, # 87, 1965

17. General:

    a. Hawaii State Plan

    b. Maui County Community Plan, Kihei-Makena, July,1985

    c. Maui County Subdivision Regulations

    d. State Land Use Classifications, Land Use Commission, State of Hawaii, Kihei District, Maui

    e Tsunami Inundation Zones, Civil Defense Agency, County of Maui

References(Cont.)

f. Tax Maps, ownership and assessment data, Department of Taxation, County of Maui

g. North Kihei Wastewater Collection System, Department of Public Works, Wastewater Division, County of Maui

h. Interviews with Wastewater Division personnel, Planning Department,Department of Public Works and Department of Water Supply , County of Maui

i. Water Distribution Maps, Kihei System, Department of Water Supply, County of Maui

j. Subdivision Records, Land Use Control Branch, Department of Public Works, County of Maui

k. Population Projections and Revisions, Planning Department, County of Maui

l. Federal Insurance Rate Maps (FIRM), June 1981

m. Foundation Investigation, Lokelani Intermediate School, DAGS # 15-16-3265, Ap@ril 1990

n. Detailed Land Classification, Island of Maui. Land Study Bureau, Univ. of Hawaii Bulletin # 7, May 1967

o. Hawaiian Coastal Plants & Scenic Shorelines, M. D. M enlis, 1977, # 77-86156 Libe. of Congress

p. Interviews with Botany Department, Bishop Museum

q. Enrollment Projections of the Public Schools in Hawaii, 1990-1995, Business Services, Information Branch, Department of Education State of Hawaii

r. Environmental Impact Statement Rules, Chapter 200, Title 11, Hawaii Administrative Rules

s. Climatological Data, Maui 1989-90, DLNR, State of Hawaii

t. Geology of the Hawaiian Islands, H. T. Stearns, 1946

u. An Inventory of the Flora and Fauna of the Kihei Area, Maui, Austin, Smith & Assoc. 1974

v. Noise From Construction Equipment and Operations, U. S. EPA, December, 1971

w. Educational Specifications and Standards for Facilities. Department of Education, State of Hawaii, 1980

18. Noise is a Pain in the Okole, Citizens Against Noise,June 1978

XI - AGENCIES, ORGANIZATIONS AND INDIVIDUALS CONSULTED IN THE PREPARATION OF THIS DOCUMENT

NEW KIHEI ELEMENTARY SCHOOL(DAGS Job # 15-16-4119)
EIS PREPARATION NOTICE
MAILING LIST
January 3, 1991

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

2. Department of Agriculture
State of Hawaii
Honolulu, Hawaii

3. Department of Education
State of Hawaii
Honolulu, Hawaii

4. Department of Health
State of Hawaii
Honolulu, Hawaii

5. Department of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

6. Department of Business
and Economic Development
State of Hawaii
Honolulu, Hawaii

7. Department of Human Services
State of Hawaii
Honolulu, Hawaii

8. Department of Transportation
State of Hawaii
Honolulu, Hawaii

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

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

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

12. Chief, Engineering Division
Department of the Army
U. S. Army Engineering
District, Honolulu
Building 230
Fort Shafter, Hawaii 96858

13. Planning Department
County of Maui
200 South High Street
Wailuku, Hawaii 96793

14. Department of Parks and
Recreation
County of Maui
200 South High Street
Wailuku, Hawaii 96793

15. Department of Public Works
County of Maui
200 South High Street
Wailuku, Hawaii 96793

16. Office of Economic
Development
County of Maui
200 South High Street
Wailuku, Hawaii 96793

17. Department of Water Supply
County of Maui
200 South High Street
Wailuku, Hawaii 96793

18. Senator Mamoru Yamasaki
State Senate ,Rm. 211
State Capitol
Honolulu, Hawaii 96813

19. Senator Rick Reed
State Senate, Rm. 207
State Capitol
Honolulu, Hawaii 96813

20. Representative Joseph M. Souki
State House, Rm 306
State Capitol
Honolulu, Hawaii 96813

21. Representative David Morihara
State House, Rm 324
State Capitol
Honolulu, Hawaii 96813

22. Mayor Linda Crockett Lingle
County of Maui
200 South High Street
Wailuku, Maui 96793

23. Chairman Howard Kihune
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

24. Kihei Community Association
P.O. Box 662
Kihei, Hawaii 96753

25. Clyde Murashige
Wailea Resort Co., Ltd.
161 Wailea Ike Pl.
Kihei, Hawaii 96753

26. Nona Politano
143 Hoano Pl
Kihei, Hawaoi 96753

27. Charles Jencks
Bradley Development Co.
1270 Ala Moana Blvd. #100
Honolulu, Hawaii 96814

28. Smokey Burgess
P.O. Box 947
Kihei, Hawaii 96753

29. Karen Waggoner
3145 Waiea Pl
Kihei, Hawaii 96753

30. Marilyn Grock
370 Kinaole Circle
Kihei, Hawaii 96753

31. Maui Electric Co. Ltd.
210 West Kamehameha Ave.
Kahului, Hawaii 96732

32. Hawaiian Telephone Co.
60 South Church St.
Wailuku, Hawaii 96793

33. The Gas Co. Maui Division
70 Hana Highway
Kahului, Hawaii 96732

XII - COMMENTS AND RESPONSES - CONSULTED PARTIES

The following parties submitted comments during the consultation phase of the process:

Karen Waggoner, resident of Kihei, Maui

Economic Development Division
Dept. of Human Concerns
County of Maui

Dept. of Education
State of Hawaii

Wailea Resort Co. Ltd, Kihei, Maui

Kihei Community Association, Kihei, Maui

Kihei School PTA, Kihei Maui

Councilman V.G. Bagoyo, Maui County Council

U. S. Army Engineers, Honolulu District

Mayor, County of Maui

Dept. of Public Works
County of Maui

Dept. of Water Supply
County of Maui

Planning Dept.
County of Maui

Dept. of Parks & Recreation
County of Maui

Soil Conservation Service
U.S Dept. of Agriculture

Dept of Transportation
State of Hawaii

These comments and the responses to them are reprinted on the following pages:

KAREN WAGGONER
3145 WAIEA PLACE
KIHEI, HI 96753

RECEIVED
MAR 5 9 15 AM '91
DEPT. OF PUBLIC WORKS
STATE OF HAWAII

March 1, 1991

Russel S. Nagata
Dept. of Accounting and General Services
1151 Punchbowl Street
P.O. Box 119
Honolulu, HI 96810

Dear Mr. Nagata:

I read with great interest the Site Selection Study and EIS Preparation Notice for the new Kihei Elementary School. I appreciate receiving a copy of this information.

The above mentioned report appears to be thorough and well prepared. I question only two points as presented. First, the "average annual temperature is 77 degrees" in Kihei as stated on page 7 (Climate). This may be true on a 24 hour a day basis, but a more relevant figure would be the number of days over 80 degrees (or the DOE standard for comfort) that are experienced during school days and school hours (effectively 7:30AM to 5:30PM with the A+ program).

Kilohana Drive is described (on page 44) as a "fully improved county road, 30' wide with curbs and gutters and sidewalks". I drive this road daily and to the best of my knowledge it is owned and maintained by Wailea Community Association, of which I am a member. Kilohana Drive is only improved with curbs and gutters on one side of the street and is in need of repair. The county would not except the road from Wailea until repairs and upgrades were made.

After review of all the material presented (and my personal knowledge as a parent of a Kihei School student, a Board Member of The Kihei School PTA, and a resident of Kihei) I favor the Wailea site. It is the only site with road and sidewalk improvements, and sewer and water hookups in place. I feel the school would be safer and construction could be completed sooner at this site. The time factor is an important consideration due to the present situation at Kihei School.

Sincerely,

Karen Waggoner

Karen Waggoner

71

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

LETTER NO. (P)1825.1

AUG 5 1991

Ms. Karen Waggoner
3145 Waiea Place
Kihei, Hawaii 96753

Dear Ms. Waggoner:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 1, 1991 comments on the subject project. Our responses to your comments are as follows:

1. Temperature

The data to extrapolate the number of days over 80° F experienced during school days between the hours of 7:30 a.m. to 5:30 p.m. are not available. New data would require 10 months to collect, compile and publish. Accordingly, we feel that the citing of an average temperature of 77° F is appropriate for our purposes to convey a feeling for the project setting.

2. Kilohana Drive

Thank you for the information regarding the ownership of Kilohana Drive and its general condition. The EIS will be revised to reflect such conditions.

3. Wailea Site

Your preference for the Wailea site for the reasons given is noted and will be considered during selection of the final site.

We appreciate your input for this project.

Very truly yours,

for TEUANE TOMINAGA
State Public Works Engineer

SM:jk

DEPARTMENT OF
HUMAN CONCERNS
COUNTY OF MAUI

LINDA CROCKETT-LINGLE
Mayor
STEPHANIE AVEIRO
Director
HENRY OLIVA
Deputy Director

ECONOMIC DEVELOPMENT DIVISION

200 SOUTH HIGH STREET, WAILUKU, HAWAII 96793 (808) 243-7710

RECEIVED
Mar 7 12 44 PM '91
DIV. OF PUBLIC WORKS
OAHU

RECEIVED
MAR - 7 1991
COMPTROLLER'S OFFICE
STATE OF HAWAII

March 4, 1991

Mr. Russel S. Nagata, State Comptroller
Department of Accounting and
General Service
1151 Punchbowl Street
Honolulu, Hawaii 96810

Dear Mr. Nagata:

Subject: New Kihei Elementary School
EIS Consultation Phase

The Office of Economic Development have reviewed the subject Environmental Assessment and Site Selection Study and find that, in general it has adequately identified and assessed the major environmental impacts which can be anticipated to result from the proposed project.

However, on page sixty-two, Site Rating Summary the total goods for sites #4, #5, and #6 are incorrect. It should read 19, 16 and 13.5 respectively.

We have no other comments to offer at this time. However, we thank you for the opportunity to review and express our comments.

Very truly yours,

Fred Matsumoto

FRED MATSUMOTO
Economic Development Coordinator

DIVISION OF PUBLIC WORKS
FILES FOR YOUR:

TO:		
1	State P.W. Engr.	Approval
	P.W. Secy.	Sign.
	St. H Serv. Br.	Info.
2	Planning Br.	File
	Proj. Mgmt. Br.	See me
	Design Br.	Comments
	Insp. Br.	Interest &
	Q. S. Cost. Engr.	Rept.
	Leasing Serv. Br.	

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
DEPUTY COMPTROLLER

LETTER NO. (P)1301.1

MAR 25 1991

Mr. Fred Matsumoto
Economic Development Coordinator
Economic Development Division
Department of Human Concerns
County of Maui
200 South High Street
Wailuku, Hawaii 96793

Dear Mr. Matsumoto:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 4, 1991 comments regarding the amounts shown on the Site Rating Summary. We will make appropriate corrections.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

CI:jk

DPW

JOHN WAIHEE
GOVERNOR

RECEIVED
MAR 14 9 54 AM '91

CHARLES T. TOGUCHI
SUPERINTENDENT

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

RECEIVED
MAR 13 1991
COMPTROLLER'S OFFICE

OFFICE OF THE SUPERINTENDENT

March 5, 1991

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

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

SUBJECT: New Kihei Elementary School
EIS Consultation Phase

This is in response to your request dated February 22, 1991 on the subject matter.

We have no comments to offer on the Environmental Assessment and Site Selection Study. The Department of Education is ready to make a recommendation on the preferred site and is anxious to begin the master planning stage of the project.

Should you have any questions, please call the Facilities Branch at 737-2796.

CTT:WO:jo

cc: Mr. Thomas M. Nakai
Mrs. Lokelani Lindsey, Maui District

DIVISION OF PUBLIC WORKS

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

No Response necessary at this time.

Wailea
Wailea Resort Company, Ltd.
161 Wailea Ike Place
Wailea, Maui, Kihei, Hawaii 96753-9599
(808) 879-4461 • FAX (808) 874-6295

March 5, 1991

Mr. Russel S. Nagata, State Comptroller
DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES
P.O. Box 119
Honolulu, Hawaii 96810

Attention: Mr. Charles Inatsuka

Dear Mr. Nagata:

Re: New Kihei Elementary School EIS Consultation Phase.

Thank you for the opportunity to comment on the above referenced EIS. We have reviewed the document and have the following comments regarding sites 3 and 5:

Site # 3 TMK 2-1-8:42

Page 42 Item 2 Physical Description

Since the topography of the overall site is very steep in many areas, not only the plateau portion , we believe the topography rating and slope rating should be poor rather than fair.

Page 42 Item 3 Shape

Considering the entire site and the buildable portion which is triangular not rectangular, this shape is very difficult to use for school and playground layout. We consider the appropriate rating to be fair rather than good.

Page 43. Item 4. Access

Kapili Street is not a County Road. Said street is not fully improved to County Standards. This street may be dedicated to the County of Maui at some point in the

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT D. TAKUSHI
DEPUTY COMPTROLLER

LETTER NO. (P)1832.1

AUG 8 1991

Mr. Clyde Murashige
Vice President
Wailea Resort Company, Ltd.
161 Wailea Ike Place
Wailea, Hawaii 96753-9599

Dear Mr. Murashige:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 5, 1991 comments regarding the subject project. Our responses to your comments are as follows:

1. Site 3, TMK 2-1-8:42

   a. Page 42, Item 2 - Physical Description

      Since the maximum size of the proposed school site is limited to eight usable acres, we selected a configuration located on the plateau. Accordingly, the average slope was determined to be approximately 6% which is within the range of the "fair" rating.

   b. Page 43, Item 3 - Shape

      The criterion for "Shape" evaluates the length to width ratio of the site. Since the ratio was determined to be 1.4:1, we rated the site as "good."

   c. Page 43, Item 4 - Access

      (1) The EIS will be revised to indicate the private ownership of Kapili Street and Kilohana Drive.

future, but is still owned by Wailea Resort Company. Each developer of property in Wailea is required to provide their own road improvements and other utility improvements.

Kilohana Drive is not a County road. Said street is not fully improved to County Standards and would require extensive improvements. This street is intended to be dedicated to the County of Maui but the majority of its length is owned by Wailea Resort Company with a short portion adjacent to Piilani Highway owned by the State of Hawaii. Improvements to Kilohana Drive as part of the school development may be required.

We believe the total school-age population south of Kilohana Drive to be in the range of perhaps 20-30 students, most of which attend private schools. The age and income of the typical Wailea owner would seem to indicate that few public school students will reside within Wailea.

We assume that the majority of people/students walking to the school site will be from the north of Kilohana Drive and therefore must cross Kilohana Drive. Adequate safety provisions should be implemented to address this concern.

75 Page 44, Item 5, Traffic.

Multi-family and single-family developments are planned for both sides of Kapili Street. Hence, traffic volumes will increase beyond current volumes.

It is our understanding that the school development may be required to participate in improvements identified by the county of Maui including, but not limited to, the improvement of the Kilohana/Kapili intersections, Kapili/Okolani intersections and Okolani/Alanui intersections.

Many of the properties along Kilohana Drive have not been developed. The properties are zoned for single-family and multi-family uses. Upon development, there will be some increase to traffic volume on Kilohana Drive. Furthermore, it is our understanding that the County has not made a decision as to whether the proposed north-south collector road will junction or intersect with Kilohana Drive.

It is contradictory that the traffic accommodation rating for this site is rated "good", while site 5, which should more easily accommodate traffic due to its location along Kilohana Drive, is rated "fair". The rating for site 3 should be reevaluated as it does not provide an objective assessment.

(2) Your input on demographic data for the Wailea site is appreciated and will be confirmed with the Department of Education (DOE). Please be assured that safety provisions for the pedestrian access will be addressed during the design stage after selection of a final site.

d. Page 44, Item 5 - Traffic

The "good" rating for Site 3, which implies a relatively stable traffic volume in the future, was based on access from Kapili Street. However, the "fair" rating for Site 5 was based on access from Kilohana Drive and its close proximity to the intersection of Kilohana Drive and Piilani Highway, which are projected to have future traffic volumes exceeding their capacity.

e. Page 46, Item 12 - Water

The EIS will be revised in accordance with information provided by the Maui County Department of Water Supply regarding water sources and allocations. We acknowledge that the allocation ordinance mentioned on Page 10 has been superseded by one that did not allocate water.

f. Page 46, Item 13 - Sanitary Sewer

A two million gallons per day expansion of the capacity of the Kihei Wastewater Treatment Plant has been completed. Accordingly, an allotment from the allocation for public uses will be made for the proposed school.

g. Page 47, Item 14 - Storm Drainage

The estimated cost to provide on-site drainage improvements will be included in the EIS.

h. Page 47, Item 15 - Electrical Power

The estimated cost to provide electrical service will be included as part of the development cost for each site.

Page 46. Item 12. Water

The availability of water sources is uncertain at this time. The 10% water allocation for government projects referenced at the top of page10 of the EIS has not been officially adopted by the Maui County Council.

Page 46. Item 13. Sanitary Sewer

Wastewater treatment capacity availability is also uncertain. The 200,000 gallons per day (gpd) referenced at the top of page 11 has been fully allocated. The Maui County Council has a proposal pending to reserve an allocation of 50,000 gpd for government projects/facilities at the Kihei WWTP.

Page 47. Item 14. Storm Drainage

The on-site drainage system will have to be improved by the school developers to accommodate major storm runoff along and under Wailea Alanui (in a southerly direction) and connect to the open drainage way adjacent the Palms at Wailea II project. These improvements will be the responsibility of the school developers.

Page 47. Item 15. Electrical Power

Although conduits are available to the site, electrical capacity is not. Maui Electric Company has informed Wailea Resort Company, Ltd. that cable upgrades are necessary to provide additional electrical service beyond current use. Each property is assessed a proportionate share of the costs.

Page 47. Item 16. Noise

Wailea has been planned and developed as a resort destination area. The majority of property owners in Wailea do not have school-age children. Wailea functions as a resort residential/recreational area where people locate due to the quietness. The EIS does not consider the impact of the school development on the resort and its guests and residents. Rather, the EIS addresses the area impact upon the school. While this aspect is important, it is equally important to consider the school's impact on the existing uses and population within the surrounding area.

Additionally, four large sites of land in the immediate vicinity of this proposed site are currently undeveloped. No work on these sites is anticipated for at least 3-5 years. The impact of major construction activity adjacent to a school could have a negative impact on the learning process.

i. Page 47, Item 16 - Noise

The EIS will be revised to include an assessment of the proposed school's impact upon its surrounding neighbors. Additionally, impacts from future construction activities adjacent to the school will be addressed.

j. Page 48, Item 18 - Archaeology

An archaeological inventory survey will be done on each candidate site selected for final evaluation. The survey reports will be included in the EIS.

k. Page 48, Item 20 - Availability and Cost Indicators

The EIS will be revised by deleting the subjective assessment that the site is not prime residential land and is owned by Wailea Resort Company, Ltd.

1. Page 48 - Significant Site Attributes or Difficulties

(1) The statement that a school on Site 3 would require the least cost for infrastructure will be deleted. We are currently developing infrastructure cost estimates which will be included in the EIS for comparative purposes.

(2) Your input on the membership and function of the Wailea Community Association is appreciated. If Site 3 is selected, we will coordinate the design of the school with the association.

2. Site 5, TMK 3-9-38:28

a. Page 53, Item 4 - Access

The EIS will be revised to indicate the private ownership of Kilohana Drive.

Page 48, Item 18, Archaeology

Wailea Resort Company has not seen any archaeological survey report on the property. Hence, we are not foreclosing the possibility that the site may have some archaeological sites or artifacts. We are of the opinion that several old rock walls are on the site, but have no information as to their possible significance.

Page 48, Item 20, Availability and Cost Indicators.

We totally disagree with the assessment that the site is not prime residential land. Per Maui County zoning regulations, the site could be developed as a residential development. We consider the site as prime residential land and value it as such.

Additionally, the site is owned by "Wailea Resort Company, Ltd." not Wailea Development Co.

Page 48, Significant Site Attributes or Difficulties.

Based upon our review of the assessment criteria, we do not concur with the statement in the assessment that "Accommodating a school here would require the least in the way of infrastructure improvements.". The assessment criteria deals with proximity to infrastructure systems but does not deal with necessary improvements to infrastructure systems or the availability of volume (water), capacity (sewer, electrical, telephone) and the costs thereof.

Experience in development in the Wailea area has indicated that each site developer will encounter subsurface blue rock formations. Development costs are significantly higher in the Wailea area partially due to implementing costly techniques in breaking blue rock formations.

All of the properties within the Wailea Resort that have been developed since 1986 are subject to mandatory membership in the Wailea Community Association. Each member within the Community Association is assessed semi-annually based upon size of property and type of development. The funds are utilized to operate the Wailea Community Association, including the contracting with a landscape maintenance operation to maintain the landscaping within County Roads and public beach accesses within the resort.

Wailea Community Association also has established design guidelines for the resort. These guidelines are administered through a design committee. The design committee has authority on design aspects of the project. Hence, the school design is subject to design approval including style, building materials, color scheme and landscape planting.

77

b. Page 54, Item 5 - Traffic

Your input on the development of properties along Kilohana Drive and concomitant traffic volume increases is appreciated.

c. Page 55, Items 12 and 13 - Water and Sanitary Sewer

As indicated in our responses to your concerns regarding water and sewer connections, we will contact the appropriate County agencies for additional information on the feasibility of such connections for each site.

d. Page 56, Item 14 - Storm Drain

The estimated cost to provide on-site drainage improvements will be included in the EIS.

e. Page 56, Item 20 - Availability and Acquisition Cost Indicators

The assessed valuation is provided only for comparison purposes. The actual valuation of the site selected will be determined by appraisals and the courts, if necessary. Your information on the property ownership and projected use is appreciated.

3. General Comments

a. The subject document is an EIS Preparation Notice and draft Site Selection Study which was used to solicit comments from other agencies and the general public on the proposed construction of a new elementary school. Accordingly, your comments will be utilized in the preparation of the EIS.

b. The Site Selection Study considered the location of a new school near the geographic center of the DOE's proposed service area. However, due to the lack of suitable land areas available for schools, sites along Kilohana Drive were included. Site 3 was included because it is currently zoned for public use and designated on the County's General Plan as a site for a school.

Site # 5 TMK 3-9-38:28

Page 53. Item 4. Access

Kilohana Drive is not a County road. Said street is not fully improved to County Standards as there are no curbs, gutters or sidewalks fronting the subject site. This street is intended to be dedicated to the County of Maui but the majority of its length is owned by Wailea Resort Company with a short portion between Piilani Highway and Kapili Street owned by the State of Hawaii. Improvements to Kilohana Drive as part of the school development may be required.

Page 54 Item 5 Traffic

Many of the properties along Kilohana Drive have not been developed. The properties are zoned for single-family and multi-family uses. Upon development, there will be some increase to traffic volume on Kilohana Drive. Furthermore, it is our understanding that the County has not made a decision as to whether the proposed north-south collector road will junction or intersect with Kilohana Drive.

Page 55 Items 12 and 13 Water; Sanitary Sewer

We have the same general comments as were noted with respect to site 3.

Page 56. Item 14. Storm Drain

It is our understanding that significant drainage improvements must be done to the site to address flows from Piilani Highway and the area to the east (mauka) of the highway. The improvements will be the responsibility of the school developer.

Page 56. Item 20. Availability and Acquisition Cost Indicators

We do not necessarily concur with the amount provided in the assessment. A more thorough analyses should be done before any value assessment is assigned. Also, ownership of the property is held by Wailea Resort Company, Ltd., not Wailea Land Company.

Finally, this site is considered as an employee housing site by Wailea Resort Company.

c. The EIS will be expanded to include the analysis of improvements necessary to access the existing infrastructure.

d. The criteria are not weighted because we feel that weighting is highly subjective and often gives the impression of being engineered to favor a particular site. Additionally, the rationale for the weight assigned to each criterion would be difficult to defend.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

CI:jk

General Comments.

We have the following general comments on the EIS draft.

The draft environmental assessment does not address design development, social, and land use issues. The assessment was based from the viewpoint of what impacts the current surrounding area might have on the school. It did not address what types of impacts the school could have on the surrounding area.

This analysis does not consider the locations examined with regard to the present and future residential concentrations. It would seem more important to locate a proposed site either near the geographic center of current residential concentration or an obvious locus for combined present and future residential development. For instance, Sites 3, 4 and 5 are at the end of the Kihei residential area which would be comprised of families with school children, since all development south of Kilohana is, and will be, resort and recreational for many miles.

The assessment did not address what major improvements have to be made to access the infrastructural systems which were in close proximity. Often times such improvements are costly and figure significantly in the feasibility of the project.

Lastly, this analysis seems rather misleading due to the equal weighting of all factors. For example, consider the following:
Development costs = Location = Historical = Scenic Beauty = 1

It would be more reasonable to assign different weighting for economic, social and infrastructural factors than some of the other less tangible concerns, which could affect an educational site location.

Again, thank you for the opportunity to comment.

Should you have any questions please do not hesitate to contact me.

Very truly yours,

for Clyde Murashige
Vice President

CM:nb

cc: Donald Bremner

DPW

KIHEI COMMUNITY ASSOCIATION
KCA
Post Office Box 662
Kihei, Maui 96753
Tel: 879-5390

RECEIVED
MAR 13 4 23 PM '91
DIV. OF PUBLIC WORKS

March 10, 1991

RECEIVED
MAR 13 1991

Mr. Russel S. Nagata
Department of Accounting and General Services
HOnolulu, HI

RE: New Kihei Elementary School
EIS Consultation Phase

Dear Mr. Nagata:

The Site Selection and EIS Preparation Notice has been reviewed by the undersigned and discussed with the directors of the Kihei Community Association.

Our association is an interested party to all things affecting our Kihei schools and several of our directors maintain active contact with our parent-teacher organziations.

The role of our association, regarding our schools, is to mobilize community support on behalf of our schools and the children of our community. Generally, we support the objectives of our local parent-teacher groups.

Therefore, the Kihei Community Association joins our parent-teacher groups in support of Site 3 (Wailea) of the study as the site for the new elementary school to be built in Kihei.

Please accept my thanks for asking the views of our association in the important matter of school site selection in our community.

Sincerely,

Gene Thompson, President

cc: Mr. Meyer Uaoka
Ms. Lokelani Lindsey
Ms. Kelly King
Mr. Smokey Burgess

JOHN WAIHEE
Governor

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TSUTSUI
DEPUTY COMPTROLLER

LETTER NO. (P)1764.1

JUL 18 1991

Mr. Gene Thompson
President
Kihei Community Association
P. O. Box 662
Kihei, Hawaii 96753

Dear Mr. Thompson:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 10, 1991 comments on the subject project. Your preference for Site 3 (Wailea) is noted and will be considered in the selection of a final site.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

CI:jk

80

DPW.

TOGETHER WE CAN MAKE IT WORK! PTA KIHEI SCHOOL

RECEIVED
MAR 13 4 23 PM '91

KIHEI SCHOOL PARENTS AND TEACHERS ASSOC.
250 E. Lipoa St., Kihei, HI 96753

RECEIVED
MAR 13 1991
COMPTROLLER'S OFFICE
STATE OF HAWAII

March 10, 1991

Russel S. Nagata
Dept. of Accounting and General Services
1151 Punchbowl Street
P.O. Box 119
Honolulu, HI 96810

Dear Mr. Nagata:

The parents and teachers of Kihei School met on March 6, 1991 to discuss the proposed sites for a second elementary school in our area. We unanimously support the Wailea site as our choice for the next school.

Wailea is the preferred site because of its safe location. It is away from traffic noise and pollution. The location is already zoned appropriately for a school; curbs, gutters, and sidewalks are existing; sewer and water hook-ups are readily available. Most importantly, we feel this is the only site that will allow the school to be ready by 1994 (as promised) instead of 1995 or later. A new facility is needed as soon as possible to relieve the unacceptable situation that exists at Kihei School.

We look forward to your support in fast tracking the permit and approvals necessary and to get this school built in Wailea.

Sincerely,

Karen Waggoner
Karen Waggoner
Member, Board of Directors
Kihei School PTA

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
[redacted]
DEPUTY COMPTROLLER

LETTER NO. (P)1763.1

JUL 18 1991

Ms. Karen Waggoner
Member, Board of Director
Kihei School PTA
250 East Lipoa Street
Kihei, Hawaii 96753

Dear Ms. Waggoner:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 10, 1991 comments on the subject project. Your preference for Site 3 (Wailea) for the reasons given is noted and will be considered in the selection of a final site.

We appreciate your input for the project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

CI:jk

Council Chair
Howard S. Kihune

Council Vice-Chair
Patrick S. Kawano

Council Members
Vince G. Bagoyo, Jr.
Goro Hokama
Alice L. Lee
Rick Medina
Wayne K. Nishiki
Joe S. Tanaka
Leinaala Teruya Drummond

COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793

Gwen Yoshimi-Ohashi
Director of Council Services

RECEIVED
MAR 19 9 10 AM '91

MAR 18 1991

March 12, 1991

Mr. Russel S. Nagata
State Comptroller
Department of Accounting and General Services
1151 Punchbowl Street
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nagata:

SUBJECT: NEW KIHEI ELEMENTARY SCHOOL (PAF 91-58)

Thank you for the opportunity to review the Environmental Assessment and Site Selection Study for the subject project.

I fully support a second elementary school in Kihei to serve the rapidly growing Kihei, Wailea and Makena areas. The current school facilities are grossly inadequate to service projected student enrollment. Furthermore, I believe that a third elementary school will be needed in Kihei to accommodate the planned housing developments in the area, and that the State should begin planning for this third school now.

A primary consideration in the evaluation of a school site is the cost of site development, infrastructure and land acquisition. In order to minimize these costs, I believe the State should consider a means to charge residential developers their fair, prorata share of the cost of new schools. Mr. Charles Toguchi, State Superintendent, Department of Education (DOE), has stated that the law does not allow the DOE to levy impact fees. I believe that the State should pursue legislation to grant the State the authority to assess impact fees on new residential developers to help pay the cost of new schools.

With regard to the six potential sites for the new Kihei Elementary School, I would like to offer the following comments for your consideration.

1. Planning and zoning. Selection of a site within the State Urban District which is appropriately community planned and zoned for a school facility would expedite the development process. Site #6 which is

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
[redacted]
DEPUTY COMPTROLLER

LETTER NO. (P)1782.1

JUL 25 1991

The Honorable Vince G. Bagoyo, Jr.
Chairperson
Planning and Economic
Development Committee
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

Dear Chairperson Bagoyo:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 12, 1991 letter regarding the subject project. In response, we provide the following comments:

1. Your support of the subject school is noted and appreciated.

2. We share your concern regarding the cost to develop a new school and we have discussed the matter with the Department of Education (DOE). For your information, the DOE is imposing impact fees on developers in accordance with the requirements of State Land Use Commission approvals of land use changes. Discussions between the DOE and the various Counties, regarding a requirement to have developers share in the cost of new schools, are underway and appear positive. Your support for these actions would be appreciated.

3. Comments on the six sites:

   a. Planning and zoning. Since one of the minimum DOE requirements for the selection of a school site is the consideration of timing to meet the DOE's scheduled opening date, and since zoning changes may lengthen the development process, we are reevaluating Site 6. The EIS will reflect all changes considered and made.

located within the State Agricultural District, and community planned and zoned for agricultural use would require numerous land use changes that would add months to the development process. State land use boundary amendments, community plan amendments and zoning changes for parcels less than fifteen acres must be reviewed by the Planning Commission and approved by the County Council.

2. Sewer availability. How will construction of the school coincide with the availability of wastewater treatment capacity at the Kihei Wastewater Treatment Plant or at the proposed Central Maui Wastewater Treatment Plant? Of the 2 million gallons per day of expansion capacity at the Kihei Wastewater Treatment Plant, Ordinance No. 1787 allocated 1.2 million gallons per day for long-term residential developments, and the remaining 800,000 gallons for other uses. I understand that sewage capacity for other uses have already been allocated. Ordinance No. 1787 does, however, allow the County Council to waive the application of the ordinance if it is shown that the project will have a minimal impact on sewage flow, and is necessary to the public health, safety and welfare.

3. Wetlands. The environmental impact statement (EIS) should consider whether the site is located within a wetland area, and guarantee that proper mitigative measures will be implemented.

Again, thank you for the opportunity to comment on the Environmental Assessment and Site Selection Study for the new Kihei Elementary School. I would appreciate receiving a copy of the draft EIS once it is available for review.

Sincerely,

VINCE G. BAGOYO, JR., Chairperson
Planning and Economic Development Committee

xc: Members of the Council
Senator Mamoru Yamasaki
Senator Rick Reed
Representative Joseph M. Souki
Representative Herbert J. Honda
Representative David Morihara
Representative Rosalyn Baker

paf58:PAFS1:ds

b. Sewer availability. The anticipated occupancy date of the subject school is September 1994. Since the expansion of the Kihei Wastewater Treatment Plant has been completed, we will request an allotment from the allocation for public uses. Should the County's allocation for public uses become unavailable, we would have to appeal to the County Council for a waiver.

We understand that the Central Maui Wastewater Treatment Plant is a conceptual plan. Therefore, we could not ascertain its completion date nor its effect on the school.

c. Wetlands. The issue of wetlands was not discussed because none of the sites contain wetlands nor are they located within wetlands. However, we understand the concern and will include a discussion on the matter.

We appreciate your input for this project. As requested, you will be included on the mailing list for the draft EIS. If there are any questions on this matter, please have your staff call Mr. Charles Inatsuka of the Public Works Division at 548-5703.

Respectfully,

RUSSEL S. NAGATA
State Comptroller

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
BUILDING 230
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF:

March 20, 1991

Planning Division

RECEIVED
MAR 22 1991
COMPTROLLER'S OFFICE
STATE OF HAWAII

Mr. Russel S. Nagata
State Comptroller
Department of Accounting and
General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nagata:

Thank you for the opportunity to review the Environmental Assessment and Site Selection Study for the New Kihei Elementary School at Kihei, Maui. The following comments are offered:

a. None of the six sites in the Phase III evaluation infringes upon wetlands or other waters of the United States. Therefore, a Department of the Army (DA) permit will not be required. For more information about DA permits, please feel free to call Mr. Benton Ching of the Operations Division and refer to file number NP91-043.

b. According to the Flood Insurance Rate Maps (Panel 15000-0265C, dated September 6, 1989; and Panel 150003-0330-B, dated June 1, 1981), Sites 1 through 5 are all in Zone C (areas of minimal flooding). The location of Site 6 as shown on page 30 does not coincide with the Tax Map Key designation (TMK 2-2-2:42) stated on page 57; clarification of this site would be necessary for flood hazard evaluation.

Sincerely,

Kisuk Cheung
Director of Engineering

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
[redacted]

LETTER NO. (P)1766.1

JUL 22 1991

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

Dear Mr. Cheung:

Subject: New Kihei Elementary School
EIS Consultation Phase

In response to your March 20, 1991 comments regarding the subject project, we provide the following responses:

1. We acknowledge that a Department of the Army permit is not required for any of the six sites.

2. Your input regarding the location of Sites 1 through 5 within Zone C (areas of minimal flooding) as shown on the Flood Insurance Rate Map (FIRM) is appreciated and will be included in the EIS.

3. The Tax Map Key designation of Site 6 will be revised to Tax Map Key 2-2-2:1. In accordance with the FIRM, Site 6 is within Zone C.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

CI:jk

LINDA CROCKETT LINGLE
Mayor
TELEPHONE 243-7855

OFFICE OF THE MAYOR
COUNTY OF MAUI
WAILUKU, MAUI, HAWAII 96793

Rec'd CCSH
July 19, 1991

RECEIVED
MAR 28 1991

March 22, 1991

Mr. Russel S. Nagata
Department of Accounting and General Services
1151 Punchbowl Street
Post Office Box 119
Honolulu, Hawaii 96810

Dear Mr. Nagata:

Subject: New Kihei Elementary School
EIS Consultation Phase.

Attached for your consideration are the comments of Maui County's Departments of Planning, Public Works, and Water Supply relative to the Environmental Assessment and the Site Selection Study for the new Kihei Elementary School.

There are three items in particular that I call to your attention. First, the Department of Public Works has expressed concerns about the effect on traffic in that area. I would like to re-emphasize that concern. Secondly, the Department of Water Supply is developing a program of water conservation based on low-usage fixtures. We feel it is very important that the State be seen as supporting such a program, and when possible, taking the lead. This new school is one such opportunity for the State. Thirdly, we feel that compliance to county zoning, special management area requirements, and local building codes and rules is very important. We hope the State intends to abide by all the applicable standards of this county.

Please feel free to have your staff contact the appropriate departments for resolution of the questions and concerns we have identified.

Sincerely,

Linda Crockett Lingle
Linda Crockett Lingle
Mayor, County of Maui

DIVISION OF PUBLIC WORKS
TO: State P.W. Engr. / P.W. Secy. / Staff Serv. Br. / Planning Br. / Proj. Mgmt. Br. / Design Br. / Insp. Br. / Q. of Cost Engr. / Leasing Serv. Br.
Approval / Sign. / Info. / File / See me / Comment / Invest. / Reply

---

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
DEPUTY COMPTROLLER

LETTER NO. (P)1807.1

JUL 30 1991

The Honorable Linda Crockett Lingle
Mayor
County of Maui
200 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mayor Lingle:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 22, 1991 comments regarding the subject project and the departmental reviews that were enclosed. Due to the extensive comments made by your departments, we sent respective responses to them with copies to your office. Regarding the three items of concern you mentioned, we provide the following comments:

1. Traffic

We share your concern on traffic. Upon selection of a final site, we will submit our plans for review and approval during the design phase.

2. Water Conservation

We support your concern for water conservation. Accordingly, we will work with the Department of Education on water conservation measures that may be implemented for the school.

3. Compliance with County Standards

We will comply with all County zoning, special management area requirements, and local building codes and rules.

If there are any questions on this matter, please have your staff contact Mr. Charles Inatsuka of the Public Works Division at 548-5703.

Respectfully,

RUSSEL S. NAGATA
State Comptroller

LINDA CROCKETT LINGLE
Mayor
GEORGE N. KAYA
Director

AARON SHINMOTO, P.E.
Land Use and Codes Administration
EASSIE MILLER, P.E.
Wastewater Reclamation Division
RALPH N. NAGAMINE, P.E.
Engineering Division
BRIAN HASHIRO, P.E.
Solid Waste Division
MELVIN HIPOLITO
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

March 13, 1991

State of Hawaii
Department of Accounting and General Services
1151 Punchbowl Street
P.O. Box 119
Honolulu, Hi. 96810

Gentlemen:

Subject: New Kihei Elementary School EIS Consultation Review

We have reviewed your submittal of February 22, 1991 and offer the following general comments.

PROJECT SETTING

WATER CAPACITY

1. The section of your report which discusses the availability of water for the subject project appears to be incorrect with regard to the source for the Kihei area in general. The County Department of Water Supply should be contacted to verify source information for the aquifers and consumption/supply information for this project.

TRAFFIC

2. Your assumptions with regard to the traffic analysis portion of the siting report should consider the maximum enrollment (900 students) for development of accurate trip generation figures for the adjacent roads and proper evaluation of traffic impacts for the Kihei area. As part of your traffic analysis, you should also consider the impacts of the new residential projects within Kihei which will be adding additional traffic to the communities' roads. Please feel free to call the Department of Public Works for information regarding these projects.

Your report references the Kihei Traffic Master Plan. We encourage your use of this document in developing the appropriate criteria to evaluate the alternative school sites. Information regarding the size of roadways,

---

JOHN WAIHEE
Governor

RUSSEL S. NAGATA
Comptroller
ROBERT P. TAKUSHI
[redacted]
Deputy Comptroller

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

LETTER NO. (P)1802.1

JUL 30 1991

Mr. George N. Kaya
Director of Public Works
County of Maui
200 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Kaya:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 13, 1991 comments regarding the subject project. Our responses to your comments are as follows:

1. Water Capacity

Information on water source and consumption/supply will be verified with the Maui County Department of Water Supply and will be incorporated in the EIS.

2. Traffic

This section will be revised to a general description of the highway/street network and existing traffic volumes. Accordingly, we will include a criterion for the evaluation of each site with regard to the degree and extent to which the school will impact local traffic. The design enrollment of 900 students will be the basis for trip generation.

3. Site Analysis and Evaluation

a. Traffic Infrastructure - We understand your concern regarding the timing of future infrastructure needs identified in the Kihei Traffic Master Plan as it relates to our project. Accordingly, we will coordinate the site evaluations with the Department of Public Works and Department of Planning.

hierarchy of roads as well as the long range plans for the circulation system is containted within this document. We recommend however, that you contact the Engineering Division of this department for any current or pending modifications to this document.

SITE ANALYSIS AND EVALUATION

This portion of the report appears to be well documented with a fairly good description of the alternative sites considered for the school use. The following summarizes the few areas within which some additional research is necessary with regard to the alternative sites and their feasibility for the proposed use.

Traffic Infrastructure - It is stated within the analysis that a high reliance on the future collector and feeder system planned for the greater Kihei area will help to mitigate much of the anticipated traffic impacts for the alternative sites. The Kihei Traffic Master Plan does go a long way in identifying the future infrastructure needs for Kihei; however, it is important to understand the timing of many of the anticipated elements of the master plan and the current thinking of the Department of Public Works and Planning with regard to the circulation system in Kihei.

We encourage you to spend some time with either of these departments to discuss the relationship your future facilities have to the master plan document.

Drainage - In many of the sites identified within the report, drainage issues may be a significant factor in determining their individual feasibility. We suggest you contact the Department of Public Works to get the latest information on issues and possible improvements to these facilities for inclusion into your EIS document.

Waste Water - As in all of the projects within the Kihei area, the carrying capacity of the Kihei Wastewater Treatment Facility and delivery system is an issue of ongoing concern with the Department of Public Works. There is limited treatment capacity available and provision has been made for public facilities to receive capacity allocations. At the time your project is ready for permits or occupancy, there may be an impact assessment for treatment facility expansion and collection system use.

b. Drainage - As suggested, we contacted the Department of Public Works for additional information and we will revise the EIS accordingly.

4. Wastewater

Thank you for the information regarding the limited capacity of the Kihei Wastewater Treatment Plant. We contacted the Wastewater Reclamation Division for additional information regarding wastewater service and will revise the EIS accordingly.

5. Solid Waste

As discussed with your Solid Waste Division, we will include a discussion in the EIS on the need for waste reduction measures in the operation of the school.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

SM:jk
cc: Mayor Linda Crockett Lingle

Once again, it would be helpful for you to discuss with this department the current issues with regard to wastewater and incorporate into your report the information which will be necessary to properly evaluate the alternative sites. The Wastewater Reclamation Division is ready to answer any questions you have in this regard.

Solid Waste - The issue of landfills, their limited capacity and future within Maui County is also a concern of this department. As in the wastewater matter above, please contact the Solid Waste Division for direct input into your report.

In summary, the siting study has identified the need for additional information which can be used in the development of the EIS for this project. Please feel free to call the Department of Public Works for any of the information discussed above.

Very truly yours,

GEORGE M. KAYA
Director of Public Works

88

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
P.O. BOX 1109
WAILUKU, MAUI, HAWAII 96793-7109

91 MAR -6 AM 9:27
OFFICE OF THE MAYOR

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. YAMASHIRO
[redacted]
DEPUTY COMPTROLLER

LETTER NO. (P)1815.1

March 5, 1991

The Honorable Linda Crockett-Lingle
Mayor, County of Maui
Wailuku, Hawaii 96793

Dear Mayor Crockett-Lingle:

Re: NEW KIHEI ELEMENTARY SCHOOL
EIS CONSULTATION PHASE

We have reviewed the subject document and have the following comments and corrections:

68

1. FIRE PROTECTION (Page 9):

The estimated hydrant flow capacities should be deleted from the report. Hydrant flow capacity varies with location and water system design.

2. WATER CAPACITY (Page 9):

Maui municipal water consumption averages 25 mgd, not 500 mgd. Kihei's water comes from the Iao Aquifer with a sustainable yield of 20 mgd. No wells draw from the Kamaole/Makawao aquifers. The allocation ordinance mentioned was superceded by one that did not allocate water. We are currently pumping ~~at about 85% of the sustainable yield of~~ the Iao Aquifer. Allocations of water were not made in November 1990.

We disagree with the water use projections of the new school (18,000 - 27,000 gpd). Based on the existing Kihei Elementary School usage, average usage is 44,000 gpd with usage of 71,200 gpd during peak months. Additionally, we strongly recommend that steps be taken to reduce consumption of potable water where possible, such as use of brackish water for irrigation, xeriscaping where possible, and installation of water-saving devices such as low-flow toilets and urinals. Water source should not be an issue in the time-frame discussed for this school (1995); however, we recommend that the State set an example in the area of conservation.

JAN 31 1991

Ms. Rae M. Shikuma
Director
Department of Water Supply
County of Maui
P. O. Box 1109
Wailuku, Maui, Hawaii 96793-7109

Dear Ms. Shikuma:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 5, 1991 comments regarding the subject project. Our responses to your comments are as follows:

1. Fire Protection (Page 9)

Hydrant flow capacities will be deleted.

2. Water Capacity (Page 9)

a. The EIS will be revised in accordance with the information provided on municipal water consumption, source and sustainable yield.

b. The water consumption projections for the new elementary school will be revised to 54,000 gpd in accordance with the Water System Standards guideline of an average per capita use of 60 gpd for a design enrollment of 900 students.

c. We support your views on water conservation. Accordingly, we will work with the Department of Education on water conservation measures that may be implemented for the school.

3. OFFSITE INFRASTRUCTURE (Pages 31, 39, 51, 55, & 59):

Pages 31 and 39: Although there are 30" and 16" pipelines in the area, the project will not be allowed to connect to the 30" line because it is a main transmission line and the 16" line services a different pressure zone. There is no access from the project site to the 8" lines and hydrants in the Alaku Place Subdivision.

Page 51: Although there are 30" and 16" pipelines in the area, the project will not be allowed to connect to the 30" line because it is a main transmission line and the 16" line services a different pressure zone.

Page 55: Connection to the 12" pipe running from the 1.0 mg tank to Maui Meadows will not be allowed because the Maui Meadows system does not have sufficient capacity. The 1.0 mg tank across the street will not serve this project site.

Page 59: There is no County water at the Kihei WWTP. The 6" line across Piilani Highway is no longer in service.

Thank you for the opportunity to comment.

Sincerely,

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI

Rae M. Shikuma
Director

RMS:MF:ab

3. Offsite Infrastructure

a. Pages 31-39. The EIS will be revised to indicate the restrictions on the 30" and 16" pipelines. Due to the lack of access to the 8" line in the Alaku Place Subdivision, we investigated the matter and noted a possible connection to the water system at the intersection of Kanakanui Road and Alaku Road.

b. Page 51. The EIS will be revised to indicate the restrictions on the 30" and 16" pipelines.

c. Page 55. The restrictions on use of the 12" pipe and 1.0 mg tank are noted and will be reflected in the EIS.

d. Page 59. The EIS will be revised to delete all references to water connections at the Kihei Wastewater Treatment Plant or the 6" line.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

SM:jk
cc: Mayor Linda Crockett Lingle

LINDA CROCKETT LINGLE
Mayor

BRIAN MISKAE
Planning Director

GUY A. HAYWOOD
Deputy Planning Director

COUNTY OF MAUI
PLANNING DEPARTMENT
250 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793

March 15, 1991

MEMORANDUM:

TO: MAYOR LINDA CROCKETT LINGLE

FROM: BRIAN MISKAE, DIRECTOR
DEPARTMENT OF PLANNING

SUBJECT: EIS PREPARATION NOTICE FOR THE KIHEI SCHOOL SITE SELECTION STUDY

In response to your memorandum of February 28, 1991 and to your further memorandum of March 11, 1991 requesting our comments on the communication from Russel S. Nagata, State Comptroller, we would advise that we have now had the opportunity to review the documents and to further review our position.

The consultant for the Department of Education has identified six (6) potential sites which could accommodate an elementary school campus. Each of the sites has been evaluated using twenty six (26) significance criteria. These criteria are rated in the attached matrix (Attachment 1). A map showing the approximate locations of the six potential sites is also attached (Attachment 2). Sites one (1) through (5) are defined parcels while site six (6) is described as a ten (10) acre parcel located anywhere between the Kihei Wastewater Treatment Plant and the mauka projection of Keonekai Road on the south. The matrix suggests that Site #1 has the best potential. Our review of the criteria would agree that Site #1 probably has the best potential for an elementary school campus. The only negative impact is that it will remove potentially developable residential land.

As is noted in the consultant's report, the preferenced site is located within the Special Management Area (SMA) and, as such will be subject to a review in accordance with the SMA significance criteria. This site has received higher marks because it is centrally located, has good vehicle and pedestrian access and is immediately adjacent to urban services. It is intended that sewage capacity will be made available to public/quasi public uses in the WWTP expansion program. Water and other hard infrastructure is also readily available.

This department would like to extend any assistance it can to the Department of Education which could expedite the process.

kkm/sis

91

JOHN WAIHEE
Governor

RUSSEL S. NAGATA
Comptroller

ROBERT P. TAKUSHI
Deputy Comptroller

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

LETTER NO. (P)1794.1

JUL 25 1991

Mr. Brian Miskae
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Miskae:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your March 15, 1991 comments regarding the subject project.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

SM:jk
cc: Mayor Linda Crockett Lingle

DEPARTMENT OF
PARKS AND RECREATION
COUNTY OF MAUI

1580 KAAHUMANU AVENUE, WAILUKU, HAWAII 96793

LINDA CROCKETT LINGLE
Mayor
CHARMAINE TAVARES
Director
ARMAND P. PADUA
Deputy Director

May 28, 1991

MEMORANDUM

TO: CHARLES INATSUKA, PUBLIC WORKS DIVISION
DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

FROM: CHARMAINE TAVARES, DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

SUBJECT: NEW KIHEI ELEMENTARY SCHOOL - EIS

The County of Maui, Department of Parks and Recreation, has no comment at this time regarding site selection.

I would recommend that a site for the elementary school include sufficient open space for playing fields and equipment. Park space makai of Piilani Highway is extremely limited.

Thank you for the opportunity to comment on this project.

DIVISION OF PUBLIC WORKS
TO:
- State P.W. Engr.
- P.W. Secy.
- Staff Serv. Br.
- Planning Br.
- Proj. Mgmt. Br.
- Design Br.
- Insp. Br.
- Quan. Cons. Engr.
- Leasing Serv. Br.

Park Maintenance Division | Recreation Division | Aquatic Division | Zoo & Botanical Gardens | Waiehu Golf Course

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

LETTER NO. (P)1795.1

JUL 25 1991

Ms. Charmaine Tavares
Director
Department of Parks and Recreation
County of Maui
1580 Kaahumanu Avenue
Wailuku, Maui, Hawaii 96793

Dear Ms. Tavares:

Subject: New Kihei Elementary School
EIS Consultation Phase

Thank you for your May 28, 1991 comments regarding the subject project. The site for the new school will include sufficient open space for playing fields and equipment.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

SM:jk

92

JOHN WAIHEE
GOVERNOR

RECEIVED
JUN 3 1 06 PM '91
DIVISION OF PUBLIC WORKS
DAGS

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

CHARLES T. TOGUCHI
SUPERINTENDENT

OFFICE OF BUSINESS SERVICES

May 30, 1991

MEMO TO: Mr. Teuane Tominaga, Public Works Engineer
Public Works Division, DAGS

F R O M: Thomas M. Nakai, Acting Assistant Superintendent
Department of Education

SUBJECT: EIS Preparation Notice
Site Selection for New Kihei II Elementary School
DAGS Job No. 15-16-4119
Kihei, Maui, Hawaii

The Department of Education have reviewed the subject document and have the following comments to make:

1) There are no comments to the document which identifies six different sites for the new school.

2) After several meetings with the community, including a Parent-Teacher Association meeting on Wednesday, April 17, 1991, at the present Kihei Elementary School, the position of the Department is to favor site #1 for the new school. A motion by the Kihei Elementary School P.T.A. Executive board was also passed by majority vote to support site #1.

3) Due to the urgent need for the school to open in September, 1994, we request that preliminary investigations of land costs, initiation of land acquisition feasibility, and any other actions which your department can initiate at this time be conducted.

4) Please start the process of master planning for the new school on site #1 as soon as possible.

Should there be any questions, please call the Facilities Branch at 737-4743.

TMN:kh

cc: Charles T. Toguchi, Superintendent
Ms. Lokelani Lindsey, District Superintendent, Maui

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

No Response necessary at this time.

93

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P. O. BOX 50004 HONOLULU, HAWAII 96850

March 19, 1991

Mr. Russel S. Nagata
State Comptroller
Department of Accounting and General Services
1151 Punchbowl Street
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nagata:

Subject: New Kihei Elementary School - EIS Consultation Phase

We have reviewed the above-mentioned document and have no comments to offer at this time. We would appreciate the opportunity to review the draft EIS.

Sincerely,

Warren M Lee

WARREN M. LEE
State Conservationist

DIVISION OF PUBLIC WORKS

	State P.W. Engr.		Approval
	P.W. Secy.		Sign
	Civil Serv. Br.		Info.
2	Planning Br.		File
	Proj. Mgmt. Br.		Service
	Design Br.		Comments
	Insp. Br.		Interest &
	Civil Cons. Engr.		Right
	Leasing Serv. Br.		

No Response necessary at this time.

JOHN WAIHEE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

EDWARD Y. HIRATA
DIRECTOR

DEPUTY DIRECTORS
AL PANG
JOYCE T. OMINE
JEANNE K. SCHULTZ
CALVIN M. TSUDA

IN REPLY REFER TO:
HWY-PS
2.6117

RECEIVED
MAR 25 10 PM '91
PUBLIC WORKS
DAGS

March 22, 1991

MEMORANDUM

TO: Russell S. Nagata, Comptroller
Department of Accounting and General Services

FROM: Edward Y. Hirata, Director

SUBJECT: NEW KIHEI ELEMENTARY SCHOOL EIS CONSULTATION PHASE

Thank you for your letter of February 22, 1991 regarding the subject proposed project.

We will reserve our comments for later after we have reviewed the Draft EIS.

No Response necessary at this time.

DIVISION OF PUBLIC WORKS
TO: / INITIAL FOR WORK:
State P.W. Engr. — Approval
P.W. Secy. — Sign
Staff Serv. Br. — Info.
Planning Br. — File
Proj. Mgmt. Br. — See me
Design Br — Comments
Insp. Br. — Invest & Rept
Qs & Cost Engr.
Leasing Serv. Br.

XIII - COMMENTS AND RESPONSES - PUBLIC REVIEW PHASE

The following parties submitted comments during the public review phase of the Draft EIS:

Dept. of the Navy, Pearl Harbor

Maui Electric Co.

Dept. of Defense
State of Hawaii

Office of Environmental Quality Control
State of Hawaii

Land Use Commission
State of Hawaii

Dept. of Education
State of Hawaii

Dept. of Economic Development
County of Maui

Soil Conservation Service
U.S. Dept. of Agriculture

U.S. Army Engineers
Honolulu District

Wailea Resort Co, Ltd, Kihei, Maui

Office of State Planning
State of Hawaii

Dept. of Human Services
State of Hawaii

Dept. of Health .
State of Hawaii

Dept. of Water Supply
County of Maui

Planning Dept.
County of Maui

Dept of Transportation
State of Hawaii

Dept. of Public Works
County of Maui

Environmental Center
University of Hawaii

Mr. Ralph Villiers,Real
Estate Agent, Kihei, Maui

These comments and the responses to them are reprinted on the following pages:

DEPARTMENT OF THE NAVY
COMMANDER
NAVAL BASE PEARL HARBOR
BOX 110
PEARL HARBOR, HAWAII 96860-5020

RECEIVED
OCT 2 3 32 '91

IN REPLY REFER TO
11011
Ser 00F2/2520
27 SEP 1991

State of Hawaii
Office of Environmental Quality Control
220 South King Street
Honolulu, Hawaii 96813

Gentlemen:

NEW KIHEI ELEMENTARY SCHOOL

We have reviewed the subject DEIS and have no comments to offer. Since we have no further use for the DEIS, it being returned to your office.

Thank you for the opportunity to review the draft.

Sincerely,

W. K. LIU
Assistant Base Civil Engineer
By direction of
the Commander

Copy to:
DAGS
(Mr. Charles Inatsuka)
Comprehensive Consulting Svcs of HI
(Mr. Donald A. Bremner)

Maui Electric Company, Ltd. • 210 West Kamehameha Ave • PO Box 398 • Kahului, Maui, HI • 96732-0398

RECEIVED
OCT 2 3 31 '91

'91 OCT -1 A9:13
OFC. OF ENVIRONMENTAL QUALITY CONTROL

September 27, 1991

Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, HI 96813

Dear Governor Waihee:

Subject: New Kihei Elementary School, DEIS

We have reviewed the subject document and have no major comments; however, please be advised that Maui Electric Company requires six to eight months for long lead material such as transformers and cables.

We thank you for the opportunity to review this document and request that a final copy of the EIS be sent to us for our files.

Sincerely,

Edward L. Reinhardt
Manager, Engineering

ELR:rt

An HEI Company

97

JOHN WAIHEE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD, HONOLULU, HAWAII 96816-4495

EDWARD V. RICHARDSON
MAJOR GENERAL
ADJUTANT GENERAL

MYLES W. NAKATSU
COLONEL
DEPUTY ADJUTANT GENERAL

Engineering Office

October 1, 1991

Office of Environmental Quality Control
220 South King Street, 4th floor
Honolulu, Hawaii 96813

Gentlemen:

Subject: New Kihei Elementary School

Thank you for providing us the opportunity to review the above mentioned site selection study and draft environmental impact statement.

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

Sincerely,

Jerry M. Matsuka

Jerry M. Matsuka
Lieutenant Colonel
Hawaii Air National Guard
Contracting and Engineering Officer

Enc. (1)

c: Charles Inatsuka
Donald A. Bremner

JOHN WAIHEE
Governor

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185

BRIAN J. J. CHOY
Director

October 2, 1991

Mr. Charles Inatsuka
Department of Accounting and General Services
P.O. Box 119
Honolulu, HI 96810

Dear Mr. Inatsuka:

Upon our administrative review of the draft Environmental Impact Statement and the Site Selection Study of the new Kihei Elementary School in Kihei, Maui, we have the following comments:

1. Page 42 is missing (discussion of sites #3 and #4).

2. Is there information on the phasing and timing of the proposed action available?

3. Page 55 - Long Term Impacts: Please include primary, secondary and cumulative impacts of the proposed action. A topographic map describing the sites would be helpful in understanding the impact of construction on site #3 where a gulch poses potential hazard. The removal of private land from the tax base represents long term impact. The cumulative effect of traffic from the proposed school and the proposed additional construction of homes in relation to existing and proposed roads, including implementation schedules, could also be clarified. The implementation schedules would also be helpful in clarifying the situation with water and wastewater development and needs.

If you have any questions regarding these comments, please call Eva Robinson at 586-4185.

Sincerely,

Brian J.J. Choy
Director, OEQC

cc: Donald A. Bremner
Comprehensive Consulting Services of Hawaii

JOHN WAIHEE
Governor

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

RUSSEL S. NAGATA
Comptroller
ROBERT D. TAKUSHI
Deputy Comptroller

LETTER NO. (P)2124.1

OCT 16 1991

Mr. Brian J. J. Choy
Director
Office of Environmental
Quality Control
220 South King Street
Fourth Floor
Honolulu, Hawaii

Dear Mr. Choy:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your October 2, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. We apologize for the omission of Page 42 from your copy of the DEIS. Upon notification, our consultant delivered a copy to your office on October 7, 1991.

2. As indicated in the DEIS, the school is targeted for an opening date of September 1995 for a projected enrollment of 350 students. The number and types of classrooms and support facilities to be constructed in this first increment, and the phasing and timing of subsequent increments will be developed during the masterplanning process which will begin after completion of this Site Selection/EIS phase.

3. The DEIS will be revised to reflect your concerns. Toward this end, we will work closely with your staff to assure the adequate discussion of impacts from the proposed action.

We understand that our consultant discussed the need for a topographic map with your staff and it was mutually agreed that it was not necessary.

We appreciate your input on this project. If there are any further questions regarding the DEIS, please have your staff contact Mr. Allen Yamanoha of the Planning Branch at 548-5742.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

FACILITIES' COPY

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
Room 104, Old Federal Building
335 Merchant Street
Honolulu, Hawaii 96813
Telephone: 548-4611

ESTHER UEDA
EXECUTIVE OFFICER

JOHN WAIHEE
GOVERNOR

October 7, 1991

Mr. Brian Choy, Director
Office of Environmental
Quality Control
Central Pacific Plaza
220 S. King Street, 4th Fl.
Honolulu, Hawaii 96813

Dear Mr. Choy:

Subject: Site Selection Study and Draft Environmental Impact Statement for New Kihei Elementary School, Kihei, Maui

We have reviewed the subject Site Selection Study and Draft Environmental Impact Statement and confirm that all four candidate sites for the proposed Kihei Elementary School are designated within the State Land Use Urban District.

We have no other comments at this time. We appreciate the opportunity to comment on this matter.

If you have any questions, please call me or Bert Saruwatari of our office at 548-4611.

Sincerely,

ESTHER UEDA
Executive Officer

EU:to

cc: DBED
Charles Inatsuka
Donald A. Bremner

66

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

CHARLES T. TOGUCHI
SUPERINTENDENT

OFFICE OF THE SUPERINTENDENT

November 13, 1991

MEMO TO: Honorable John Waihee, Governor
State of Hawaii

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

SUBJECT: Site Selection Study and
Draft Environmental Impact Statement
New Kihei Elementary School
Kihei, Maui, Hawaii

After reviewing the subject study and Draft EIS, the Department of Education has no comment to make. The Department of Education is ready to make a recommendation on the preferred site and is anxious to begin the land acquisition and master planning stages of the project.

Should there be any questions, please contact Mr. Alfred Suga, Assistant Superintendent of Business Services, at 586-3444 or the Facilities Branch at 737-2796.

CTT:LC:jl

cc: A. Suga
L. Lindsey
DAGS
✓Comprehensive Consulting Services of Hawaii

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

LINDA CROCKETT LINGLE
Mayor

FRED MATSUMOTO
Coordinator

RECEIVED
COUNTY OF MAUI Oct 9 1 14 PM '91

DEPARTMENT OF ECONOMIC DEVELOPMENT

WAILUKU, MAUI, HAWAII 96793

TELEPHONE 243-7710

October 7, 1991

Honorable John Waihee, Governor
State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th floor
Honolulu, Hawaii 96813

Dear Governor Waihee:

Subject: Draft Environmental Impact Statement
for the New Kihei Elementary School.

The Office of Economic Development have reviewed the subject Environmental Impact Statement and find that in general, it has adequately identified and addressed the major environmental impacts which can be anticipated to result from the proposed project.

However, we would like to offer the following comments:

1. Wetland issues have not been addressed.
2. Page 11 - The County of Maui is not the second largest county but the second largest island.
3. Page 24 - Under Flora and Fauna, need to include deer, pheasants, wild turkey, chukars, and quails.
4. Page 26 - The Kealia Pond area is not designated as a historic site.

We have no other comments to offer at this time; however, we thank you for the opportunity to review and express our comments.

Very truly yours,

FRED MATSUMOTO
Economic Development Coordinator

cc: Charles Inatsuka
DAGS
Donald A Bremner
Comprehensive Consulting Service of Hawaii

001

JOHN WAIHEE
Governor

RUSSEL S. NAGATA
Comptroller

ROBERT P. TAKUSHI
Deputy Comptroller

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

LETTER NO. (P)2207.1

NOV 7 199:

Mr. Fred Matsumoto
Economic Development Coordinator
Department of Economic Development
County of Maui
200 South High Street
Wailuku, Hawaii 96793

Dear Mr. Matsumoto:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your October 7, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. No areas classified as "wetlands" are involved in the school sites discussed in the DEIS. In addition, no wetland area will be secondarily affected by the use of any of the proposed sites.

2. Page 11 - "Facts and Figures - County of Maui," 1990, published by the Department of Business, Economic Development and Tourism, State of Hawaii, states that Maui County is the "Second largest County in the State." The 1990 State Data Book lists the geographic area of Maui County at 1,161.6 square miles second only in size to the County of Hawaii at 4,034.2 square miles. Maui Island is also the second largest at 734.5 square miles.

3. Page 24 - The "Flora and Fauna" section of the EIS will be expanded to include deer, pheasants, wild turkey, quail, chukars (on the upper slopes of Haleakala) and gray francolins.

4. Page 26 - Kealia Pond is not designated as a historic site but is a proposed national wildlife refuge.

The final EIS will reflect these changes and additions.

We appreciate your input on this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

AY:jk

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P. O. BOX 50004
HONOLULU, HAWAII
96850

October 7, 1991

The Honorable John D. Waihee
Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

Dear Governor Waihee:

Subject: Draft Environmental Impact Statement (DEIS) for the New Kihei Elementary School, Kihei, Maui

We have reviewed the DEIS for the New Kihei Elementary School and offer the following comments:

1) The DEIS does not adequately cover the potential drainage and storm runoff problems of the area. We support comments made previously by the County of Maui's Department of Public Works pointing out the need for close attention to drainage and flooding concerns of each site as part of the selection process.

2) The DEIS does not adequately address the potential water quality concerns of the proposed sites. Since all of the candidate sites are located near the shoreline, the potential for damage to the marine life of the area from runoff laden with sediment and construction chemicals is of great concern. The DEIS should cover the nonpoint source pollution control practices that will be used to reduce any potential adverse effects caused by grading and construction.

Thank you for the opportunity to comment on this document and we would greatly appreciate reviewing the final EIS.

Sincerely,

Warren M. Lee

WARREN M. LEE
State Conservationist

cc:
Mr. Charles Inatsuka, Dept. of Accounting and General Services, P.O. Box 119, Honolulu, HI 96810
Mr. Donald A. Bremner, Comprehensive Consulting Services of Hawaii, 348 Dune Circle, Kailua, HI 96734

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JOHN WAIHEE
GOVERNOR

RUSSEL B. NAGATA
COMPTROLLER
ROBERT P. TAYLOR
DEPUTY COMPTROLLER

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

LETTER NO. (P)2208.1

NOV 7 1991

Mr. Warren M. Lee
State Conservationist
Soil Conservation Service
U. S. Department of Agriculture
P. O. Box 50004
Honolulu, Hawaii 96850

Dear Mr. Lee:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your October 7, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. In addition to the discussion on surface water runoff and drainage contained in Section II, C-3 and V, B-5d, the following will be added to the final EIS:

   a. Section II, C-3 - Essentially three natural drainage courses (i.e. Kamaole gulch, Liilio-holo gulch and a lesser gulch system just south of Kilohana Drive) drain surface water from the upland to the sea in the immediate study area. The watershed area contributing to this system is approximately 13 square miles (11.5 mauka of Piilani Highway). In designing drainage structures to accommodate the demand flows for the area under Piilani Highway, the State Department of Transportation used overall design discharges of 4,650 cubic feet per second (cfs) (Q50) to 6,195 cfs (Q100). (Q50 = the design discharge for a probable 50-year storm; Q100 = the design discharge for a probable 100-year storm.) On an annual basis, the 100-year storm has a probability of 1% and the 50-year storm a probability of 2%.

b. Section V, B-5d, Storm Drainage - Surface water runoff generated from the new school on an 8-acre site will be relatively insignificant in terms of total runoff from the area, amounting to a 25% to 30% increase in runoff from an area of about 100,000 square feet made impervious by building and site development (an addition of about 2.5 cfs).

Discharge from Site 1 would be added to that now arriving from Upcountry and passing under Piilani Highway through two 78" culverts just mauka of the site (design discharge, Q100 = 550 cfs). Drainage from the site would be diverted around the Alaku Road subdivision and into a box culvert (4' x 3') on the makai boundary of the subdivision which enters Liilioholo gulch (see Map 8).

Drainage discharge from Site 2 would be added to that from Upcountry coming through three 36" culverts under Piilani Highway mauka of the site (design discharge, Q100 = 295 cfs) which presently leads into Kamaole gulch. Site runoff could also be diverted to Liilioholo gulch in the manner described for Site 1 above.

Drainage discharge from Site 3 would be added to that locally produced from approximately .06 square miles and drainage from Kapili Street. These runoffs drain in natural channels bracketing Site 3 and which are preserved downstream in the Wailea Development Plan.

Drainage discharge from Site 4 would be added to that coming from Upcountry under Piilani Highway through two 66" culverts (design discharge, Q100 = 380 cfs), coursing to Kihei Road in a natural channel on the north boundary of the site.

In all cases, no significant impact on downstream conditions is foreseen. The design plan for the school will verify appropriate detailed schemes for the disposal of runoff such that it will not adversely affect downstream properties.

2. Section V, A-1h, Water Quality - Maalaea Bay is designated a Class A marine water area under the water quality standards of the State of Hawaii (Chapter 11-54, HAR, Department of Health). Standards applicable under this designation protect water quality for recreational purposes and aesthetic enjoyment. Turbidity in Maalaea Bay is higher than usual for coastal water areas in Hawaii.

No sewage discharges from the proposed school will be allowed to enter the bay. Sites 1, 2 and 3 are all 0.4 miles from the shoreline while Site 4 is 0.3 miles from the shoreline, all distant enough to reasonably insure that normal school use will produce no water quality degradation. The more significant prospect that construction activity might produce a temporary threat to water quality will be controlled by the use of interceptor ditches and settling basins along with other measures conforming with State and County erosion control standards to minimize any undesirable discharges.

We appreciate your input on this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

AY:jk

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

REPLY TO ATTENTION OF

October 11, 1991

RECEIVED
OCT 17 3 33 PM '91

Planning Division

Mr. Brian J. J. Choy, Director
Office of Environmental Quality Control
465 South King Street, Room 104
Honolulu, Hawaii 96813

Dear Mr. Choy:

We have reviewed the Site Selection Study and Draft Environmental Impact Statement (DEIS) for the New Kihei Elementary School, Kihei, Maui. Our previous comments in response to the environmental assessment (letter dated March 20, 1991) have been included in the DEIS (page 83). We offer the following additional comment.

Paragraph II.B.6 on page 14 of the DEIS should state that, according to the Federal Emergency Management Agency's Flood Insurance Rate Map dated July 16, 1990, candidate sites 1-4 are located in Zone C (areas of minimal flooding).

Sincerely,

/s/ Pelowski

Ray H. Jyo
Acting Director of Engineering

Copies Furnished:

Department of Accounting and General Services
Attention: Mr. Charles Inatsuka
P.O. Box 119
Honolulu, Hawaii 96810

DIVISION OF PUBLIC WORKS
TO / INITIAL FOR YOUR:
State P.W. Engr. — Approval
P.W. Secy — Sign.
— Info.
Planning Br. — File
— See me
— Comments
— Invest. &
Cost Cont. Engr. — Rept.

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
[redacted]
DEPUTY COMPTROLLER

LETTER NO. (P)2205.1

NOV 5 1991

Mr. Ray H. Jyo
Acting Director of Engineering
Department of the Army
U. S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Jyo:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your October 11, 1991 comments on the subject DEIS.

The DEIS will be revised to include the statement that Sites 1 to 4 are located in Zone C (areas of minimal flooding) as designated on the Federal Flood Rate Insurance Maps of July 16, 1990.

We appreciate your input on this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

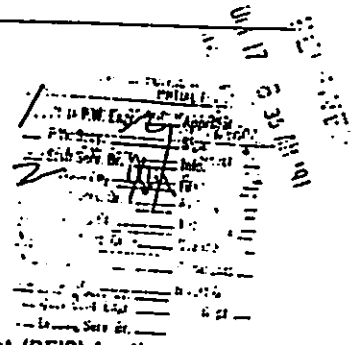
AY:jk

Wailea

Wailea Resort Company, Ltd.

161 Wailea Ike Place
Wailea, Maui, Kihei, Hawaii 96753-9599
(808) 879-4461 • FAX (808) 874-6295

October 15, 1991



Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, HI 96813

Dear Sir or Madam:

Re: Draft Environmental Impact Statement (DEIS) for the New Kihei Elementary School, TMK 3-9-14:4, 3-9-19:6, 2-1-8:42, 3-9-4:129,75,76, Kihei, Maui.

We have reviewed the draft Environmental Impact Statement and offer the following comments:

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1. There seems to have been some preliminary engineering work done in regards to the configuration of Site #3. The configuration of the site creates major development problems for the remainder of the unsubdivided site. Site distance and access problems may be insurmountable given the layout.

   An irrigation well has been installed adjacent to the site on its Makena side. The school site configuration will hinder Wailea Resort Company, Ltd. from accessing the well site for service, repair and monitoring.

   We were surprised by the configuration of Site #3. We were not contacted by the study's consultant after the preliminary assessment regarding the site configuration and any potential impacts it has on access to the remainder of the parcel.

2. The proposed school site location does not acknowledge its proximity to public park use. The configuration creates a virtually useless strip of land between the public park and school site.

3. Page 46. Based on resales in the Wailea area, the site's fair market value exceeds $3,000,000.

JOHN WAIHEE
Governor

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

RUSSEL S. NAGATA
Comptroller
ROBERT P. TAYLOR
Deputy Comptroller

LETTER NO. (P)2206.1

NOV 7 1991

Mr. Clyde Hurashige
Vice President
Wailea Resort Co.
161 Wailea Ike Place
Wailea, Maui, Hawaii 96753-9599

Dear Mr. Hurashige:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your October 15, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. The proposed configuration of Site 3 is conceptual and based on the following parameters:

   a. A site size of eight acres.

   b. Consideration of the topography that best lends itself to an elementary school development.

   c. Convenient access-orientation to Kapili Street.

   The precise boundaries are flexible. Such flexibility will assist any development considerations for the remaining area of the total parcel.

   Final configuration of the site, if selected, will take cognizance of the concern for access to Wailea's irrigation well on land adjacent to the site.

2. The proposed northern boundary of Site 3 was conceptually placed to avoid the steep sloping topography that characterizes the "strip" between the site and Kilohana Park. While the park plat is adjacent to the school site, the steeply falling topography between the two (forming drainage gulches - and including two drainage structures under Kapili Street) make its use impractical and unsafe for either park or school use. For mapping purposes,

4. Page 47/59. Some road improvement costs should be included. Kapili Street is not up to County standards. Also, electrical power and telephone lines do not exist fronting the site.

5. Page 65. All projects in Wailea require Planned Development Steps I, II and III approval from the County of Maui and Land Court subdivision approval from the State of Hawaii.

Thank you for the opportunity to comment.

Sincerely,

Clyde Murashige
Vice President

CM:lt

cc: ✓Charles Inatsuka (DAGS)
Donald A. Bremner

105

the boundary of the park could be moved to coincide with the proposed school site, or perhaps a more practical consideration would be to dedicate the area between the park and the school site to a "drainage preserve" similar to other such preserves shown on the Wailea Development Plan.

3. The discussion of acquisition cost for Site 3 contained in the DEIS is within this range.

4. The category of "Road Improvement Costs" contained in the DEIS includes items of right-of-way acquisition, road widening, and/or repaving. Since Kapili Street conforms to County standards for the level of an urban collector street, the planned function of Kapili Street, no such improvements are contemplated here. Costs for street lighting additions and electric power connections and possible wiring are included under such headings.

   Underground electric power ductwork and connecting boxes are already installed in Kapili Street. A Maui Electric switchgear also exists in Kapili Street near the site (presently available for power to the subdivision in the development planning stages on Kapili Street just south of Site 3). While some installations are not "energized" as yet, they more than likely will be by the time of any school construction. In any case, electric power connections for a possible school here are readily available.

5. Land Court subdivision is recognized as a requirement for any partition of Site 3 from the total parcel. Such processing could occur at, or prior to, acquisition.

We appreciate your comments for this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

AY:jk

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OFFICE OF STATE PLANNING
Office of the Governor

October 24, 1991

MEMORANDUM

TO: The Honorable John Waihee, Governor
State of Hawaii
c/o Office of Environmental Quality Control

SUBJECT: Comments on Draft Environmental Impact Statement
New Kihei Elementary School
Kihei, Maui
Job #15-16-4119, DAGS
TMK: 3-9-19: 4; 3-9-19: 6; 2-1-8: 42; 3-9-4: 129, 75, 76

We have reviewed the DEIS for the New Kihei Elementary School, proposing construction of the school at one of the four sites reviewed.

We have no comments to offer at this time. Thank you for the opportunity to review the statement.

for Harold S. Hasumoto
Director

cc: Charles Inatsuka, DAGS
Donald A. Bremner, Comprehensive Consulting Services of Hawaii ✓
Douglas Tom, CZM

JOHN WAIHEE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES

WINONA E. RUBIN
DIRECTOR

LYNN N. FALLIN
DEPUTY DIRECTOR

LESLIE S. MATSUBARA
DEPUTY DIRECTOR

OCT 15 3 34 PM '91

October 9, 1991

The Honorable John Waihee
Governor, State of Hawaii
c/o Office of Environmental
Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Governor Waihee:

RE: NEW KIHEI ELEMENTARY SCHOOL

Thank you for the opportunity to review the proposed project. We have no comment to offer at this time as the proposed elementary school does not impact any of our housing projects.

Please contact Mitsuo Shito at 848-3230 should you have any questions or need further assistance.

Sincerely,

WINONA E. RUBIN
Director

cc: ✓Charles Inatsuka
Donald Bremner

AN EQUAL OPPORTUNITY AGENCY

JOHN WAIHEE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HAWAII 96801

JOHN C. LEWIN, M.D.
DIRECTOR OF HEALTH

October 29, 1991

In reply, please refer to:
91-354

The Honorable John Waihee,
Governor, State of Hawaii
c/o Mr. Brian Choy, Director
Office of Environmental Quality Control
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

Dear Mr. Choy:

Subject: Request for Comments
Site Selection Report and Draft Environmental Impact Statement for the New Kihei Elementary School
Kihei, Maui
TMK: 3-9-19:4, 3-9-19:6, 2-1-8:42, 3-9-4:129, 75, 76

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We have reviewed the material on the subject project submitted by your office and have the following comments to offer:

All potential sites are located within the critical wastewater disposal areas as determined by the Maui Wastewater Advisory Committee.

As all sites are located within a municipal sewer service system, we have no objections to any of the proposed sites provided that the school is connected to the public sewers. We reserve the right to review the detailed wastewater plans for conformance to the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems."

If you should have any questions, please contact Mr. Harold Yee of the Wastewater Branch at 586-4294.

Very truly yours,

John C. Lewin, M.D.
Director of Health

c: DAGS
Comprehensive Consulting Services
of Hawaii

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TOGUCHI
DEPUTY COMPTROLLER

LETTER NO. (P)2319.1

DEC 10 1991

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

Dear Dr. Lewin:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your October 29, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. As stated in the DEIS, the proposed school will be connected to the Maui County sewer system.

2. Upon initiation of the design for the school, we will coordinate the design of the school's wastewater system with the Department of Health.

We appreciate your input for the project.

Very truly yours,

RUSSEL S. NAGATA
State comptroller

RECEIVED

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
P.O. BOX 1109
WAILUKU, MAUI, HAWAII 96793-7109

October 30, 1991

Honorable Governor John Waihee
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Governor Waihee:

Re: New Kihei Elementary School, Site Selection Study and Environmental Impact Statement, TMK 3-9-19:4, 3-9-19:6, 2-1-8:42 & 3-9-4:129,75 & 76

Communications received from DAGS during the EIS consultation phase indicated that the water consumption projections for the new elementary school would be revised to 54,000 gpd in accordance with the Water System Standards guideline of an average per capita use of 60 gpd for a design enrollment of 900 students. These projections were not revised in the current draft EIS.

DWS recommendations during the EIS consultation phase included water conservation measures such as the installation of water saving devices, xeriscaping and the use of brackish water for irrigation where possible. DAGS responded that it supported these concerns and would work with DOE on water conservation measures. However, the current draft of the EIS states that, "no mitigation measures are indicated except conformance with the general policy of water conservation". We recommend that water conservation efforts be delineated prior to the approval of permit applications for the subject project.

Thank you for the opportunity to comment on this document.

Sincerely,

Rae M. Shikuma
Director

cc: Charles Inatsuka, DAGS
Donald Bremner, Comprehensive Consulting Services of Hawaii

"By Water All Things Find Life"

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
[redacted]
DEPUTY COMPTROLLER

LETTER NO. (P)2298.1

DEC 4 1991

Ms. Rae Shikuma
Director
Department of Water Supply
County of Maui
P. O. Box 1109
Wailuku, Maui, Hawaii 96793-7109

Dear Ms. Shikuma:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your October 30, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. We apologize for not revising the water consumption projections. Please be assured that the EIS will be revised in accordance with the Water System Standards guideline.

2. As indicated in our response to your concerns during the EIS consultation phase, we will work with the Department of Education on water conservation measures. Accordingly, the statement you quoted should have been deleted and we will correct this oversight in our revised EIS. Water conservation efforts will be delineated during the design phase of the project.

We appreciate your input on this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

AY:jk

LINDA CROCKETT LINGLE
Mayor
BRIAN W. MISKAE
Director
ROBERT K. KEKUNA, JR.
Deputy Director

COUNTY OF MAUI
PLANNING DEPARTMENT
250 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793

JOHN E. MIN
Long Range Division
COLLEEN M. SUYAMA
Current Planning Division

MEMO TO: Honorable Linda Crockett Lingle
Mayor, County of Maui

F R O M: Brian Miskae, Director
Planning Department

D A T E: November 1, 1991

SUBJECT: Site Selection Study and Draft Environmental Impact Statement for the proposed New Kihei Elementary School

We have reviewed the above referenced Site Selection Study and Draft Environmental Impact Statement (EIS). As noted in our response to the EIS Preparation Notice it appears that Site #1 provides the best location for the new elementary school in Kihei although it will remove potentially developable residentially designated land from the urban land inventory in Kihei. Site #3 was also highly rated (within .5 points of Site #1), however, we feel that site development costs may be higher than indicated by the site rating summary. This may be due to the weighting of the Site-Cost Development criterion toward infrastructure development costs rather than actual onsite development costs.

The preferred sites are within the Special Management Area (SMA) and therefore, are subject to the SMA Rules and Regulations. And while a Community Plan amendment is not required (Site #3 is already identified as a school site and Sites #1, #2 and #4 are designated for residential uses which allow schools), should the Department of Education make a final selection of the proposed school site in the near future, we would like to identify this site on the Kihei-Makena Community Plan during the upcoming review process.

Should you have any questions, please contact Mr. Bill Medeiros of the Long Range Planning Division at extension 7735.

bkm:lvja
cc: Charles Inatsuka, DAGS
J. Min
B. Medeiros
File

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
[redacted]
DEPUTY COMPTROLLER

LETTER NO. (P)2320.1

DEC 9 1991

Mr. Brian Miskae
Director
Planning Department
County of Maui
250 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Miskae:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your November 1, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. As indicated in Appendix A-2, the site development costs include both off-site and on-site costs. Please note that the costs are relative and were developed only for comparison purposes. In general, the development costs for Site 3 are relatively lower because of the proximity and nature of existing infrastructure.

2. We will submit an application for a Special Management Area permit during the design of the first increment of the school.

3. The County of Maui will be advised of the final site selection.

We appreciate your input for the project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

AY:jk

JOHN WAIHEE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

November 5, 1991

EDWARD Y. HIRATA
DIRECTOR

DEPUTY DIRECTORS
AL PANG
JOYCE T OMINE
JEANNE K SCHULTZ
CALVIN M TSUDA

IN REPLY REFER TO:

HWY-PS
2.9458

MEMORANDUM

TO: Governor, State of Hawaii
c/o Office of Environmental Quality Control

FROM: Edward Y. Hirata, Director
Department of Transportation

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT,
NEW KIHEI ELEMENTARY SCHOOL, KIHEI, MAUI
TMK: 2-1-08; 3-9-04; 3-9-19

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Thank you for your transmittal of the subject draft environmental impact statement (DEIS) for our review.

We have the following comments:

1. A Traffic Impact Analysis Report (TIAR) should be prepared and submitted for the selected school site. The number of trips generated will impact the nearby roadway network, especially where there is currently moderate to heavy traffic on the main roadways. Appropriate roadway mitigation measures should be discussed in the report.

2. Plans for work within the State right-of-way must be submitted to the Highways Division for our review and approval. Required roadway plans should be consistent with other development/planning projects in the area.

✓bc: Mr. Donald A. Bremner

JOHN WAIHEE
GOVERNOR

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

RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKITANI
DEPUTY COMPTROLLER

LETTER NO. (P)2350.1

DEC 19 1991

Honorable Rex Johnson
Director
Department of Transportation
State of Hawaii
Honolulu, Hawaii

Dear Mr. Johnson:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for the November 5, 1991 comments from Mr. Edward Hirata on the subject DEIS. Our responses to his comments are as follows:

1. Once a school site is selected, traffic impacts in the immediate vicinity of a selected school site will be studied in greater detail as a basis for designing vehicular and pedestrian access to the school. The need for improvements such as lane widening, signalization and installation of sidewalks to alleviate the projected traffic congestion will be considered at that time.

2. No work in the State right-of-way is contemplated for the construction of the school.

We appreciate your input for this project.

Very truly yours,

RUSSEL S. NAGATA
State Comptroller

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

December 11, 1991

Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Gentlemen:

SUBJECT: SITE SELECTION STUDY AND DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR NEW KIHEI ELEMENTARY SCHOOL

The County of Maui, Department of Public Works, has finally completed its review of the subject documents. Our comments represent major concerns that still need to be appropriately addressed in the Final Environmental Impact Statement. The major concerns are addressed as follows:

1. Land Use and Zoning:
   a. The final school site will have to be properly rezoned to allow the construction and use of the site;

2. Traffic:
   a. The anticipated traffic generation [400 vehicle trips per school day (vpd)] for the new school is too low and it is requested that supporting data be included in the E.I.S.;
   b. The assumption that 400 vpd is "spread-out" over an eight-hour period and therefore creates an average hourly rate of 50 vehicles per hour is not acceptable. A more accurate assumption would be that the school generated trips will occur during the morning and afternoon peak hours;
   c. Roadway improvements will be required fronting all proposed school sites; additional off-site road improvements will also be required to mitigate traffic impacts created by the new school. This concern should be included in the site evaluation as it will affect estimated development costs;
   d. The Kihei Traffic Master Plan (KTMP) designates proposed roadways to be constructed to address traffic circulation in the Kihei area. The County does have a plan to implement the KTMP, but the completion of the roads identified in the plan prior to the completion of the new school in September 1995 is not a realistic assumption;

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

LETTER NO. (P)1170.2

FEB 28 1992

Mr. George N. Kaya
Director
Department of Public Works
County of Maui
200 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Kaya:

Subject: New Kihei Elementary School
EIS Public Review Phase

Thank you for your December 11, 1991 comments regarding the subject project. We provide the following responses to your comments:

A. Land Use and Zoning:

As discussed between Mr. Lloyd Lee of your staff and our consultant, Mr. Don Bremner, since all of the proposed school sites are zoned either residential or public use and since public schools are allowed without a special permit in these areas, rezoning would not be required.

B. Traffic:

1. The estimated trip generation for the new school [400 vehicles per day (vpd) when the school is at its design capacity of 900 students] is based on the following parameters and local conditions:

   a. One half of the design students will be bussed. (450 @ 65/bus = 7 busses, twice daily = 14 trips)

   b. One-third of the students within walking distance will be personally transported. Surveys indicated that 31% of the non-

3. Drainage:
   a. "On-site" and "off-site" drainage improvements will be required to be constructed as part of the construction of buildings for the selected school site. Improvements will be determined after a detailed drainage report is submitted by the developer to the Department of Public Works for review and approval. The impacts created by the school site will be mitigated by the improvements required by the County;
4. Solid Waste:
   a. The developer shall submit a Solid Waste Management Plan to the County for review and approval to mitigate impacts created by the new school site;
5. Wastewater:
   a. The developer should be informed that the County cannot ensure that wastewater system capacity will be available for this project;
   b. The developer will be assessed impact fees for treatment plant expansion costs; and,
   c. The developer will be required to fund any necessary off-site improvements to the collection system and wastewater pump stations as required by the County.

Please note that the Department of Public Works had previously submitted comments to the State, Department of Accounting and General Services, on March 8, 1991 pertaining to the site selection and EIS.

It is suggested that the Department of Accounting and General Services and the Department of Education contact this Department prior to finalizing construction plans for the proposed new school site so that we can resolve our concerns in a reasonable manner. We look forward to working closely with these State agencies.

Please contact Lloyd Lee, our Chief Staff Engineer, at 243-7845 if you have further questions.

We apologize for the lateness of this submittal and any inconveniences it may have caused.

Very truly yours,

GEORGE N. KAYA
Director of Public Works

LL:(kiheis.osp)
cc: Land Use and Codes Administration
Engineering Division
Wastewater Reclamation Division
Solid Waste Division
Nolan Perreira

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bussed Kihei Elementary School students and 40% of the non-bussed Kainalu Elementary School students were personally transported. (150 x 2 = 300 trips)

c. Staff and service trips are estimated at 84.

d. Total trips: 14 + 300+ 84 = 398.

2. The reference to 50 vph does not assume that school traffic is spread over an eight-hour period. It is a parenthetical reference made to put the total amount of school traffic, 400 vpd, in a perspective more understandable to the lay person to explain the "light" category assigned to it. However, based on the resulting confusion, the reference will be deleted from the final EIS.

   As indicated in the draft EIS, peak school traffic will not occur during the peak traffic hours of 6:15 to 7:15 a.m. and 3:30 to 4:30 p.m. We anticipate school traffic to occur between 7:00 to 8:00 a.m. and 1:30 to 2:30 p.m.

3. Upon selection of a final site, traffic impacts in the immediate vicinity of the site will be studied in greater detail as the basis for designing vehicular and pedestrian access to the school. The need for improvements such as lane widening, storage lanes and signalization will be considered at that time.

4. Accommodation of the new school does not depend upon the completion of any of the Kihei Traffic Master Plan (KTMP) roadways. However, since the implementation of the KTMP would alleviate traffic congestion in the Kihei area, Sites 3 and 4 would also benefit.

C. Infrastructure Requirements:

Upon selection of a final site, the design of drainage, solid waste management, wastewater and

other utilities will be coordinated with your department prior to finalizing construction plans.

We appreciate your input on this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

EB:jnt

University of Hawaii at Manoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road • Honolulu, Hawaii 96822
Telephone (808) 956-7361

November 7, 1991
RE:0589

Governor, State of Hawaii
c/o Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Governor:

Draft Environmental Impact Statement (DEIS)
New Kihei Elementary School
Kihei, Maui

The referenced DEIS discusses four proposed alternative sites for a new elementary school in Kihei, Maui.

The Environmental Center has reviewed this DEIS with the assistance of Michael Graves, Anthropology; George Taoka, Civil Engineering; Karl Kim, Urban and Regional Planning; and Elizabeth Muller, Environmental Center.

Population Projections

There is some question as to whether or not the population projections cited in the DEIS accurately forecast long-term demands for elementary school capacities in Kihei. Determining the validity of the projections would be aided if the EIS contained the empirical data upon which these projections were based. It also would be helpful to extend these projections past the year 2000 to more accurately forecast Kihei's long-term demand for elementary schools.

If it is possible that this one additional elementary shool will not sufficiently meet the future demands of the Kihei community, this is the appropriate time to look at alternatives that would better meet these needs.

Thank you for the opportunity to comment on this project.

Yours truly,

John T. Harrison, Ph.D.
Environmental Coordinator

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STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS

LETTER NO. (P)1159.2

FEB 28 1992

Dr. John T. Harrison
Environmental Coordinator
Environmental Center
University of Hawaii
2550 Campus Road
Honolulu, Hawaii 96822

Dear Dr. Harrison:

Subject: New Kihei Elementary School
Draft Environmental Impact Statement (DEIS)

Thank you for your November 7, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. The population projections in the DEIS were developed by our consultant on the basis of the following sources:

   a. The Kihei-Makena Community Plan, County of Maui which projects population to the year 2005.

   b. The State of Hawaii Department of Education (DOE), School Enrollment Projections, 1991-1996.

   c. The analysis of growth trends in Kihei by the Planning Department, County of Maui and the DOE.

   d. The analysis of growth patterns and pace in terms of zoned "carrying capacity" of Kihei area by the Planning Department, County of Maui (unpublished).

It is to be noted also that the zoned "carrying capacity" referred to above, could go beyond year 2005 since, regardless of when development "saturation" occurs, the zoned "carrying capacity" in Kihei will not be exceeded unless an unplanned alteration of growth controls is enacted at some time in the future.

cc: DAGS
Comprehensive Consulting Services of Hawaii
Roger Fujioka
Michael Graves
George Taoka
Karl Kim
Elizabeth Muller

2. Flexibility for the prospect of completely unexpected growth is afforded by the fact that such growth would have to occur in the outlying areas of Maalaea/Waikapu or Makena. If such growth occurs, schools would be logically located in those areas, not Kihei proper.

   Your allusion to the possibility of additional schools in the future is also mitigated by referring to the boundaries of the school service areas in question. The school service boundary which the DEIS deals with ends on Piilani Highway on the east. Growth occurring mauka of the highway--a good prospect for new growth directions--impacts a difference school service area where additional schools may very well be necessary in the future.

We appreciate your input on this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

AY:jk

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

LETTER NO. (P)1222.2

MAR 16 1992

Mr. Ralph A. Villiers
Villiers Real Estate, Inc.
1993 South Kihei Road, Suite 208
Kihei, Hawaii 96753

Dear Mr. Villiers:

Subject: New Kihei Elementary School
EIS Public Review Phase

Thank you for your January 10, 1992 and November 6, 1991 comments on the subject DEIS. Our responses to your comments are as follows:

1. The Site Selection/EIS report is a compilation of the various factors involved in making a selection of the best available site. However, since it does not recommend a particular site, the report does not have any sites rated as No. 1, No. 2, etc. Recommendations of a final site are usually made after publication of the final EIS to ensure that all or at least a great majority of the concerns have been addressed.

2. Your comments on the ratings of Sites 1 and 2 regarding the sewer lines and storm drainage are noted and will be considered in the final EIS. Please note that the numerical ratings of sites have been revised since the December 17, 1990 presentation and are now shown with ratings of "good", "fair" and "poor" in the draft EIS.

3. The ratings for "Availability" are being re-evaluated for all sites based on the new information you provided. We note that the current bankruptcy proceedings involving Site 2 could complicate but does not preclude acquisition by the State. Attached for your information is the preliminary revision of the ratings.

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VILLIERS REAL ESTATE
Maui's 1st Name in

VILLIERS REAL ESTATE, INC.
1993 S. KIHEI ROAD, SUITE 208
KIHEI, MAUI, HAWAII 96753
TELEPHONE (808) 879-8111
FAX LINE (808) 879-1366
General Brokerage handling all types of Real Estate.

November 6, 1991

Office of the Govenor of Hawaii
Environmental Quality Control Division
220 S. King Street - Fourth Floor
Honolulu, Hawaii 96813

Subject: Site for the proposed
2nd Elementary School
in Kihei, Maui, Hawaii.

Gentlemen:

On December 17, 1990, virtually one year ago, Mr. Don Bremner who is your consultant on the subject site selection gave a presentation which covered his ratings of six possible sites for the new school. Rated #1 was TMK 2-3-9-19-4 which is a 28.54 Acre parcel that this office has listed with an asking price of $9,000,000. Rated #2 was TMK 2-3-9-19-6 an abutting parcel with an area of 25.45 acres. The rating sheet, a copy of which is attached, gave both of these parcels a rating of 213 out of a possible 220 points. They were then, on the rating sheet, equal. On December 20, 1990 I wrote to Mr. Bremner and pointed out two major differences in the two parcels. These being the sever lines and storm drains. The engineering studies, which have not yet been done, will point out that TMK 2-3-9-19-4 slopes to the South and therefor the Sever and Storm Drains may very well require some type of lateral pumping and this will quite likely be all the way to Keonekai Street under the propose North South Collector Road. TMK 2-3-9-19-6, which slopes to the North, alread has a duly recorded Utility and Foot path Easement over TMK 2-3-9-20-27 which. due to a natural slope, should enjoy gravity flow direct to the existing Mains on Kihei Road. As the attached copy of my letter indicates this Easement is recorded in Liber 13247, page 489. This feature alone will save the proposed school not only considerable time but also many, many dollars. Primarily, for the above stated reasons I suggest that TMK 2-3-9-19-4 should not be #1 on your list. You will note, on the enclosed SITE RATING SUMMARY that Site #1 was rated 10 for both Sewer Service and Storm Drainage while Site #2 was rated 9 on these two items. I strongly suggest that these figures are. at best, reversed.

Site #1 was also given a 10 for AVAILABILITY while site #2 was given an 8. This because at the time of the survey Site #1 was actively For Sale while Site #2 was scheduled for Development. Since the date of the survey, on May 20, 1991 to be exact, we received an offer on the property. This offer, which was near the asking price, was accepted and an Escrow account with Title Guaranty and Escrow was opened. Our offer is of course subject to a clariifcation of the status with the school. As a point of information, we also received a subsequent Back-up offer on the property from a third party for the same rounded amount on August 9, 1991. This offer was rejected as we were in Escrow. Site

continued

TO: Office of the Govenor of Hawaii
FROM: Villiers Real Estate
SUBJECT: Proposed 2nd Kihei Elementary School
DATE: November 6, 1991
PAGE: -2-

#2, at the time of the survey, was part of a proposed Development which held an SMA permit and was therefore given an 8 on the Site Rating Summary for availability. This project, at least according to the Honolulu Advertiser and Maui News, has gone through a foreclosure action and is no longer viable. This. then, would indicate that the AVAILABILITY ratings should also be reversed.

If you are in agreement with the thinking in this letter then it would appear that the ratings on the SITE RATINGS SUMMARY for Site #1 should be reduced a minimum of 4 points. 1 each for Sewer Service and Storm Drain and also 2 for availability. A corresponding increase in the rating for Site #2 would seem applicable. This then would show Site #2 with 217 and Site #1 with 209. Since Site #3 scored 212 this should move TMK 2-3-9-19-4 to no better than 3rd place.

In the event that you have any questions regarding the above or the enclosed I hope that you will contact me. I will, if you deem it adviseable, come to Honolulu to discuss this matter with you. Thank you for your consideration in this matter.

There is, of course, some measure of urgency in this matter as our "buyer" will only continue in the present uncertain status for a reasonable length of time. He has also been reminded that TMK 2-3-9-19-4 remains as the #1 choice of the department. This in a talk given at the Kihei-Wailea Rotary Club and we are also told that it may be some 5 to 7 months before a final decision will be reached. The #1 rating has our sale hopelessly stymied while we may, and we are not sure of this, be able to convince the Buyer that a rating of 3rd is an acceptable risk.

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Sincerely,

Ralph A. Villiers (PB)

Enclosures:
SITE RATING SUMMARY
Letter to Don Bremner 12-20-90
Don Bremner Reply 12-27-90

4. We have investigated your allegation that TMK 2-3-9-19:04 remains as the No. 1 choice of the department and find that an official position has not been issued by the Department of Education nor the Department of Accounting and General Services.

   Please note that the ratings of Sites 1, 2 and 3 are comparable so that any one of the three sites could be selected.

5. We anticipate completion of responses to comments from the Public Review Phase in March 1992. Accordingly, the final EIS should be published in April 1992.

We appreciate your input on this project.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

AY:jk

XIV - APPENDICES

APPENDIX A

A - 1 - Detailed Site Description and Evaluation:

SITE # 1 - TMK 3-9-19-4

1. Location: On Kanakanui Rd. 2 miles from existing Kihei School, 1/3 mile north of Keonekai Rd. Site is at mid-point of 2 mile walking distance bewteen Kihei School and Kilohana Dr.

   Rating = Good

2. Size: Parcel is 28.57 acres. Subdivision into 8 acre site is feasible

   Rating = Good

3. Topography: Generally flat, uniform and gentle slopes. At elevation 85' to 110' msl. Rock outcroppings visible in mid-section. Moderate to heavy vegetation(Kiawe 25' high) and ground cover of dense buffelgrass. Brush fire hazard in dry weather - eliminated by site development.

   Rating = Good

4. Slope: Gentle slopes range between 1.6 to 2 %

   Rating = Good

5. Shape: Overall parcel is parallelogram. An 8 acre piece fronting on Kanakanui Rd. would be parallelogram,700' x 500' with a length to width ratio of 1.4 : 1

   Rating = Good

6. Vehicular Access: From Kanakanui Rd., a paved (16') but otherwise unimproved county road with connection to Piilani Hwy. over Keonekai Rd. - a highly improved road(22' to 36' wide) coming from south Kihei. North end of Kanakanui Rd. is accessible from Auhana/ Kanani Rds. in mid-Kihei. A future connector road is planned for the makai boundary of the overall parcel. (See Map # 6) Rating = Good

7. Walking Access: Sidewalks and good shoulders are generally non-existent on Kankanui Rd. Large culverts under Piilani Hwy. at Liilioholo gulch spill water over Kankanui Rd. in wet weather. New roadway over Liilioholo gulch into Alaku Rd. subdivision is underway and will provide unobstructed walking access to site from Keonekai.

   Rating = Fair

8. Traffic Accommodation: Traffic on Kanakanui Rd. is light. Road will not become a major element in the future traffic pattern. School traffic will add 400 trips per day- an amount which can be comfortably

accommodated. However for the convenience and greater ease of direct access, the road fronting the site should be widened (900').

Rating = Good

9. Planning & Zoning : Urban district; zoned residential, R-2(7,500 sq. ft. minimum lot size). Schools permitted by right.

10. Historical: Not within any historic preservation area.

Rating = Good

11. SMA : Lies within the SMA - requires SMA permit from County of Maui(See Map # 5)

Rating = Good

12. Flood Free: Elevation 85' - 100' msl not subject to coastal flooding or inundation by surface water. Not in any flood hazard area established by FIRM(See Map # 3)

Rating = Good

13. Drainage: Consists of well drained soils and topography. Slightly to medium defined drainage channels run between site and rear of Alaku Rd. subdivision and onto the site at its north end-entering under Kanakanui Rd. in 2-36" culverts and under Piilani Hwy. from 2-72" culverts.

Rating = Good

14. Tsunami: No Tsunami threat (See Map # 4)

Rating = Good

15. Geologic Stability: Stable geologic landform - no threat of landslide,mud-slide, major erosion or lava flow.

Rating = Good

16. Storm Drain Proximity : County prohibits adding runoff to natural channel which runs into Kihei Kai Nanai development. Diversion of runoff to Liilioholo gulch is blocked by recent subdivision(12/91) on TMK 3-9-43-80. Half acre retention basin on site required to store site runoff for delayed release.

Rating = Poor

17. Water * Service: Available to site through connection at intersection of Kanakanui Rd. and Alaku Rd.(900')

Rating = Fair

18. Sewer: * Nearest available connection is Omaka Pl.(700') and requires easement.150' of lateral in Omaka Pl. needs upgrading to 8" for school. Alternate connection will be available in Keonekai Heights IV subdivision(850')

Rating = Fair

19. Electricity:* A 12.47 KV line fronts the site on Kanakanui Rd. This line and the generating capacity in the area, is capable of accommodating the school needs without additional improvements.

Rating = Good

20. Telephone:* Telephone service is immediately available to the site

Rating = Good

21. Site Cost-Development: Costs to prepare and develop this site to provide infrastructure are in the medium range for costs projected at candidate sites. Table II A and Appendix A-2 provide details.

Rating = Fair

22. Air Quality: State and federal clean air standards haver never been exceeded here,ie, particulate matter less than 150 micro-grams/ cu. meter and sulphur oxides less than 1300 micro grams/cu. meter.(13)

Rating = Good

23. Noise Free Quiet surroundings - ambient noise level is low and consistent with residential neighborhoods, ie, 25 - 55 dbA. Ideal noise standards for schools = 55 dbA outside and 40 dbA inside.(12). Only threat to site is increased noise from Piilani Hwy. Heavy traffic volumes (1,000 vph and above) produces noise level of 62 dbA. Setting school structure back 250' on the site(400' from Highway) will attenuate noise to 52 dbA outside the school. The school structure would further attenuate the noise to 40 dbA inside(windows open). With windows closed levels inside school would be about 32 dbA - all levels within the desirable design standards.

Rating = Good

24. Archaeology: Five archaeological sightings were made here consisting of rock mounds, a terrace and an historic shed. They occur at the makai boundary of the potential school site and the latter two would fall outside the site itself. Sub-surface testing of the sightings determined that they were non-significant. See Archaeological Inventory Survey Report, Appendix B.

Rating = Good

25. Scenic Beauty: The scenic beauty of the site is classed as "routine."

Rating = Fair

26. Displacement: No person or structure would be displaced by the acquisition and development of this site.

*See Commentary, A-1-13

27. Availability: Vacant and free of any development approvals. Owned by Kirchmeyer/Koziol, P.O. Box 648, Kula, Maui and is assessed for $ 2,228,000($1.79/sq. ft.) for tax purposes. Property was on open real estate market and was sold. recently for a reported $,8,000,000($6.55/sq.ft.)(Asking price was $9,000,000). At the sale price, 8 acres would cost $2,516,025($6.42/sq. ft.)

Rating = Good

28. Bussing Costs: Due to its centralized location within the school service area, only students in areas outylying Kihei proper would have to be bussed. Bussing costs would therefore be low. See Table II B.

Rating = Good

SITE # 2 - TM K 3-9-19-6

1. Location (Map # 7) On Kanakanui Rd. slightly less than 2 miles from existing Kihei School , and immediately adjacent to Site # 1 on the north. A single family home is located between the two. It is also at the mid-point of the walking distance diameter between Kihei School and Kilohana Dr.

Rating = Good

2. Size: Overall parcel = 25.43 acres. Subdivision of an 8 acre piece is feasible.

Rating = Good

3. Topography: Generally flat and uniform, gently sloping from Kanakanui Rd. toward the ocean, 110' msl to 90' msl. Loose rock outcroppings were observed. Sparsely vegetated(small kiawe) and covered with dense buffelgrass. Same brush fire hazard as Site # 1.

Rating = Good

4. Slope: Slopes range between 1.6 and 2.1%

Rating = Good

5. Shape: Overall parcel = a parallelogram. An 8 acre partition fronting on Kanakanui Rd. would also be a parallelogram 800' x 450' with a length to width ratio of 1.7 : 1.

Rating = Good

6. Vehicular Access: From Kanakanui Rd. with lead-ins from Piilani Hwy. over Keonekai Rd, and Auhana/Kanani Streets from mid-Kihei. Future roads are planned for the northern boundary of the site and the makai boundary of the overall parcel. See Map # 6 & 8.

7. Walking Access; Sidewalks and adequate shoulders are generally non-existent on Kanakanui Rd. See further discussion of walking access under Site # 1, page, A-1-1.

Rating = Fair

8. Traffic Accommodation: See discussion of traffic under Site # 1, page A-1-1. Widening of Kanaknaui Rd. fronting the site would require 1,800 of paving.

Rating = Good

9. Planning & Zoning: Urban district; zoned residential, R-2(7,500 sq. ft. minimum lot size). Schools permitted by right.

Rating = Good

10. Historical: Not within any historic preservation area

Rating = Good

11. SMA : Within the SMA - requires SMA permit from county See Map # 5.

Rating = Good

12. Flood Free: Not within any flood hazard area established by FIRM and is not subject to inundation by surface water See Map # 3.

Rating = Good

13. Drainage: Well drained. Only slightly defined drainage channels on site. 3- 36" culverts under Piilani Hwy. empty toward site near its north boundary. Runoff from site could empty into Kamaole gulch with concurrence of downstream owners(400')

Rating = Good

14. Tsunami: No Tsunami threat, See Map # 4.

Rating - Good

15. Geological: Stability: Stable geologic landform; no threat of landslide. mud-slide, major erosion or lava flow.

Rating = Good

16. Storm Drain Proximity: Kamaole gulch is accessible 400' from site with easement over TMK 3-9-18-1(site of a proposed subdivision) and with concurrence of downstream owners.Half acre retention basin may be required to store site runoff for delayed release.

Rating = Fair

17. Water Service: Available to site through connection at Kanakanui Rd. and Alaku Rd.(1,900').

Rating = Poor

18. Sewer: Nearest possible connection is at Omaka Pl., 1,000' from site with easements. Lateral on Omaka Pl. requires upgrading to, 8 "(150').Alternate 1200'new subdivision.

Rating = Poor

19. Electricity: A 12.47 KV line(overhead) fronts the site and the line and generating capacity supplying it is capable of accommodating the school without improvement.

Rating = Good

20. Telephone: Telephone service is readily available

Rating = Good

21. Site Cost-Development: Site development costs here would be in the high range for candidate sites. See Table II A and Appendix A-2 for details.

Rating = Poor

22. Air Quality: Within state and federal. standards. See Site # 1

Rating = Good

23 Noise Free: Quiet area with low ambient noise level. Is slightly further from Piilani Hwy. than Site # 1. A setback of 200' on the site(400' from the Highway) would protect against future noise problems. See discussion, Site# 1.

Rating = Good

24. Archaeology: Three archaeological sightings were made here consisting of boulder platforms, rock mound, midden and artifacts and a possible shrine.Sightings are located in the mid-section of the parcel(makai boundary of the site). Sub - surface testsing found non-significance except at C-10, a possible shrine recommended for preservation "in situ"if impacted. See Archaeological Report, Appendix B.

Rating = Good

25. Scenic Beauty: The site is characterized as " routine" in this category.

Rating = Fair

26. Displacement: No person or structure will be displaced by acquisition and development of this site

Rating = Good

7. Availability: Site is vacant and unsubdivided. However an SMA approval has been granted for housing development. Owned by Kamaole Land Ventures, c/o Coopers & Lybrand,1001 Bishop St.,Honoluu, Hawaii. The principal of Kamaole Land Ventures is listed as Kyoung Ho Huh, aka Keigo Omori, President of Jo-In Corp.,745 Fort St. # 1800, Honolulu, Hawaii ,96813. Site was purchased in January 1991 for $4,250,000($3.80/sq,ft.) when assessed for $1,983,000($1.79/sq. ft.). Site now subject of foreclosure proceedings against owner(C-91-2512,First Circuit Court) by Daiichi Real Estate. On September 5, 1991, Kamaole Land Ventures filed for Chapter 11 bankruptcy protection.

Rating =Fair

28. Bussing Cost: Due to centralized location within the school's service area, only students in areas outlying Kihei proper would be bussed. Costs would therefore be low. See Table II B.

Rating = Good

SITE # 3 - TMK 2-1-8-42

1. Location (Map # 7) On Kapili St., 840' from Kilohana Dr. and 3.2 miles from the existing school. Also 0.8 miles from S. Kihei Rd. over Kilohana Dr. On southern edge of Kihei proper and 1/2 mile beyond mid-point of walking distance diameter from existing school.

Rating = Fair

2. Size: Parcel = 23.193 acres - Plateau site = about 11 acres. 8 acre piece is feasible at Kapili St. level.

Rating = Good

3. Topography: Site has domed plateau at its center off Kapili St. sloping from its edges to medium-steep gulches on either side. Elevations decline from 260' msl at Kapili St. to 150' msl at Wailea Ala Nui Dr. Vacant and in natural state, sparse vegetation(small Kiawe) with dense ground cover of buffelgrass. Terrain indicates possible rock strata close to surface.

Rating = Fair

4. Slope: Slopes encountered in plateau area = 1 - 4%. Below plateau, 10 - 20%.

Rating = Fair

5. Shape: Irregular - site on plateau is roughly triangular(isoceles) with height(site depth) of 730' and base of 1,200'. Length to width ratio roughly equivalent to 2 : 1.

Rating = Fair

6.	Vehicular Access	From Kapili St.(1200' frontage), a 36' wide improved road with curbs, gutters and sidewalks(still owned by the Wailea Resort Co. and association of users). Vehicular lead-ins to the site come from Kilohana Dr., a 30' wide improved road with curbs and gutters (in most areas) and sidewalks (one side)(Also owned by Wailea and association of users). Kilohana Dr. intersects with Piilani Hwy. just mauka of Kapili St. All access roads are highly improved. Rating = Good
7.	Walking Access:	Walking access is highly supported by physical conditions in vicinity of site. Rating = Good
8.	Traffic Accommodation:	Kapili St is a residential service road. Traffic is now negligible but will increase to light volumes as area develops. Kilohana Dr. , at its intersection with Piilani Hwy.,exhibits heavy peak hour traffic. Volumes subside makai on Kilohana. Proposed new roads in the area (Kihei Traffic Master Plan) are projected to absorb much of the future traffic,pasrticularly traffic on Kilohana Dr. Consequently volumes on Kilohana are not projected to increase in any measure. Rating = Good
9.	Planning & Zoning:	Urban District; area zoned for residential, R-3 (10,000 sq Ft minimum lot size); site is zoned "public use" since it is the site designated on the Wailea Development Plan for a school site. Rating = Good
10.	Historical:	Not within any historic preservation area. Rating = Good
11.	SMA :	Within SMA - requires permit, County of Maui Rating = Good
12.	Flood Free:	Elevation is 260' - 180' msl and not subject to coastal flooding or surface water inundation. Not in any flood hazard area established by FIRM. Rating = Good
13.	Drainage:	Well drained; natural drainage afforded by site topography utilizing two well-defined channels on either side of the site and which afford adequate and protected flows all the way downstream. Rating = Good

14. Tsunami: No Tsunami threat. See Map # 4

Rating = Good

15. Geological Stability: Stable geologic landform, no threat of landslide,mud-slide, major erosion or lava flow

Rating = Good

16. Storm Drain Proximity: Site drainage will be handled by natural channels and courses preserved for that purpose

Rating = Good

17. Water Service: Available through connection to existing line in Kapili St.(within 50' of site). See Map #9

Rating = Good

18. Sewer: Available through connection to existing line in Kapaili St(requires 500' run to achieve gravity flow), or alternatively to Ala Nui Dr(600')

Rating = Good

19. Electricity: Underground electric power conduits front the site Not all are energized at present and larger conduits may have to be provided from Kilohana Dr.(800') Electric Co. switchgear is installed just south of site on Kapili also

Rating = Good

20. Telephone: Telephone service is available from Kapili St.

Rating = Good

21. Site Cost-Development: Due to the nature and proximity of existing infrastructure, site development costs are low for this site. Alternates and an adjustment for possible rock are provided. See Table II A and Appendix A-2 for details.

Rating = Good

22. Air Quality: State and federal clean air standards have never been exceeded here(13)

Rating = Good

23. Noise Free: Quiet area, ambient noise level is low. The mauka edge of the site is 600' from Piilani Hwy., which in this area, lies in a cut of 15-20'. Highway noise under these circumstanmces would be attenuated to a level of 45 dbA outside the school and 33 dbA inside the school(windows open). All levels comfortably within the desired design standards.

Rating = Good

24. Archaeology: One archaeological sighting was made here - a multiple stacked stone wall. Non-significant. See Archaeological Report, Appendix B

Rating = Good

25. Scenic Beauty: The elevation of the site and its surroundings afford vistas of Kihei, the ocean and west Maui, resulting in impressive scenic beauty.

Rating - Good

26. Displacement: No person or structure will be displaced by acquisition and development of this site for a school

Rating = Good

27. Availability: Vacant and lacking any development approvals or pending applications.Owned by Wailea Resort Co.and is designated as "school site" on the Wailea Development Plan. It is assessed for tax purposes at $7.80 / sq. ft. but much of the site cannot be classed as " prime residential land."

Rating = Good

28: Bussing Cost: Because the site lies on the edge of Kihei proper(south) and 1/2 mile beyond the walking distance diameter from existing Kihei School, students from within Kihei proper, as well as students from outlying area, would have to be bussed to this site. Bussing costs would be higher here. See Table II B

Rating = Fair

SITE # 4 - TMK 3-9-4-129(portion)
3-9-4- 75(portion)
3-9-4- 76(portion)

1. Location: (See Map #7) On north side of Kilohana Dr. (700' frontage), 3 miles from existing school, 1,200' mauka of S. Kihei Rd. and makai of homes on Kauhale Rd. Approximately 1/2 mile beyond walking distance diameter from existing school.

Rating = Fair

2. Size: Portions of three separate lots combine for approximately 11 acres. A 3 acre contingency is provided for planned roadway on mauka side if built in future.

Rating = Poor(due to initial 11 ac. requirement

3. Topography: Moderately rugged terrain with a medium-steep gulch on north side. Light vegetation(Kiawe) and dense buffelgrass.

Rating = Fair

4. Slope: Slopes of 4% predominant. Slopes of 6 - 10% occur in gulch area and south-makai portion of site.

Rating = Fair

5. Shape: Essentially square in shape. Length to width ratio = 1 : 1

Rating = Good

6. Vehicular Access: From Kilohana Dr. a highly improved, 30' wide road travelling between S. Kihei Rd. and Piilani Hwy.(Owned by Wailea and user Association). Kauhale St., an improved road, 24' wide provides access to the Keonekai area. A new road is proposed on the mauka edge of the site to connect with Ala Nui Dr. See Map # 6

Rating = Good

7. Walking Access: Improved roads with sidewalks and shoulders provide unobstructed walking access to the site

Rating = Good

8. Traffic Accommodation: Kilohana Dr. in this vicinity carries a moderate volume of traffic and exhibits surplus capacity. Additional capacity would be provided by a planned connector roadway on the mauka edge of the site. See Map # 6

Rating = Good

9. Planning & Zoning: Urban district; zoned residential, R-3(10,000 sq. ft. minimum lot size). Schools permitted by right

Rating = Good

10. Historical: Not within any historic preservation area

Rating = Good

11. SMA: Within SMA - requires permit, County of Maui

Rating = Good

12 .Flood Free: Not within any flood hazard area established by FIRM. Confinement of the drainage gulch on the north side will be necessary to prevent surface water collection on portion of site.

Rating = Good

13. Drainage: Medium well-drained. Requires confinement of drainage channel(on north side) to be well drained when developed

Rating = Fair

14. Tsunami: No Tsunami threat, See Map # 4

Rating = Good

15. Geological Stability: Stable geological landform; no threat of landslide,mud-slide, major erosion or lava flow.

Rating = Good

16. Storm Drain Proximity: Drainage from site would occur in natural channels on north side of site proper.

Rating = Good

17. Water Service: Available through connection at existing 12" line at Ala Nui Dr. and Kilohana Rd.(300')

Rating = Good

18. Sewer: Available through connection with existing line (10") on Kilohana Dr. at Waikai St.(600')

Rating = Good

19. Electricity: Available immediately fronting site on Kilohana Dr.

Rating = Good

20. Telephone: Immediately available on Kilohana Dr.

Rating = Good

21. Site Cost-Develoment: In the mid-range for candidate sites.See Table II A and Appendix A-2 for details

Rating = Fair

22. Air Quality: State and federal clean air standards have never been exceeded here(13)

Rating = Good

23. Noise Free: Quiet area, low ambient noise level.Is 2,000' from Piilani Highway and highway noise is not a factor

Rating = Good

24. Archaeology: Two archaeological sightings were observed, a rock wall near the gulch on the north side and a rock wall in the mauka portion. Both are non-significant.See Archaeological Report, Appendix B

Rating = Good

25. Scenic Beauty: Classed as "routine."

Rating = Fair

26. Displacement: No person or structure would be displaced by acquisition or development of this site

Rating = Good

27. Availability: Kitahara Realty, 2270 Kalakaua Ave., Honolulu, Hawaii 96815 purchased TMK 3-9-4-129 in 1988 for $ 1,500,000 ($4.30/sq. ft.). EJ & L Corp., P..O. Box 608, Wailuku, Maui, owns TMK 3-9-4-75(the middle piece) which is assessed at $ 1,012,200($ 3.01/sq. ft.). Kitahara Realty purchased TMK 3-9-4-76 in 1988 for approximately $1,000,000($2.69/sq. ft.). The area is vacant and in its natural state with no development approvals. Since it requires acquiring the mauka portions of three lots its availability is rated Fair.

Rating = Fair

28. Bussing Cost: Since the site is on the southern edge of Kihei proper and 1/2 mile beyond the walking distance diameter measured from the existing school, students from within Kihei proper, as well as students from outlying areas would have to be bussed As a result, bussing costs would be higher here. See Table II B.

Rating = Fair

* Commentary re: Criteria for Water, Sewer, Storm Drainage Electricity and Telephone: Water and sewer connections were considered similar as basic utilities supplied by municipal operations in a semi-urban setting according to actual demand. More liberal distance to connections is deemed reasonable on this basis. Storm drainage disposition involves more variables and accordingly is subject to different measurements. Electricity and telephone are utility services supplied by private operations to a larger extent on prospective demand and can be expected to have a greater level of service available in the same semi-urban setting. Existing conditions in the locale were also taken into account.

See Table III for Summary of Site Ratings

APPENDIX A-2

Cost Consideration - Detail

1. Acquisition:

Site # 1: (28.57 acres)

Land assessed at $2,228,000($1.79/sq. ft.)in 1990. Zoned R-2, (7,500 sq. ft. minimum lot size). On market for sale at $9,000,000($7.23/ sq. ft.). Unofficial sale price, June 1991 = $ 8,000,000($6.42/sq. ft.)

8.5 acres* @ $ 6.42/sq ft. = probable cost range of $2,377,069

Site # 2: (25.43 acres)

Purchased in 1990 for $4, 250,000($3.80/sq. ft). Zoned R-2 (7,500 sq. ft. minimum lot size).. Has county SMA approval for housing development but not subdivided yet. Subject of foreclosure proceedings. Purchase might include reimbursement of development expenditures to date.

8.5 acres* @ $6.00/sq ft. = probable cost range of	$2,221,560
+ reimbursement	500,000
	$2,721,560

*0.5 additional acres for possible retention basins

Site # 3: (23.193 acres)

In Wailea development area. Site designated on Community Plan and Wailea Development Plan as " school site". Zoned for "public use". Prime residential land in area assessed at $7.80/sq. ft. Site not classed as prime residential land but value of improvements must be considered.

8 acres at $ 7.20/sq. ft.= probable cost range of $2,509,056

Site # 4: (19 acres)

1/3 of site purchased in 1988 for $ 4.30/sq. ft., 1/3 purchased same year for $ 2.60/sq.ft.. Assessed at $3.01/sq. ft. (1990)

11 acres at $6.00/sq. ft. = probable cost range of $2,874,960
(A 3 acre contingency is included to compensate for possible loss of this area to proposed road in future)

2. Site Preparation and Infrastructure Costs(Offsite and Onsite):

Site # 1:

Water - 1,200'(900' offsite;300'onsite)	= $	67,200
Sewer - 850'(600' offsite;250'onsite)	=	59,500
upgrade 150' of lateral(Omaka Pl.) to 8"-w/easement	=	40,000
Drainage - Offsite -2-72" culverts under Kanakanui Rd 100' ea.	=	28,000
Onsite - swale,900'(2000 yds)	=	20,000
Onsite - 12" culverts,400'- paved area	=	10,000
Onsite- Retention Basin,19,333 sq ft(4582 yds)	=	45,820
Widen Kanakanui Rd.(16 to 26') - 900'offsite		
sub-base - 666 tons	=	19,980
base(5") - 666 tons	=	40,000
topcoat(2") - 290 tons	=	18,270
curbs/gutters	=	14,850
sidewalk(4')	=	12,870
Elec/Telephone - 250'	=	12,500
Grubbing/Grading - 8 ac.	=	56,500
	$	445,490

Site # 2:

Water - 2,100'(1900 offsite;200'onsite)	=	117,600
Sewer - 1,300'(1000'offsite;300' onsite)	=	91,000
upgrade 150' Omaka Pl to 8" w/easement	=	50,000
Drainage-Option A(Kamaole gulch)Onsite-swale 600'(733yds)	=	7,330
Onsite-3-36" culverts,access Rd. 250' ea.	=	45,000
Onsite-12" culverts,500' paved area	=	12,500
Offsite-3-36" culverts to gulch,400' ea	=	72,000
Offsite-easement to gulch	=	20,000
Offsite-3-36"culverts,Kanakanui Rd. 100 ea	=	18,000
Widen Kankanui Rd.(16' to 26') - 1,750'	=	165,194
Elec/Telephone - 250'	=	12,500
Grubbing/Grading - 8ac.	=	40,000
	$	651,124
Option B- Retention Basin		
Drainage-Onsite,retention basin,19,333 sq ft(4582 yds)	= $	45,820
Eliminate offsite culverts to gulch + easement		604,944

Site # 3:

Water - 250'(50'offsite; 200'onsite)	=	14,000
Sewer - 500'(100'offsite;400'onsite)	=	42,000
(Alternate - 1,000'(600'offsite;400'onsite)	=	(70,000)
Drainage - 300'onsite	=	27,000
Elec/Telephone - 250'(50'offsite;200' onsite)	=	12,500
(Alternate -improve conduits - 800'offsite)	=	(50,000)
Grubbing/Grading - 8 ac.	=	96,000
No Alternates	=	$191,500
Alternate sewer	=	219,500
Alternate sewer + elec.	=	257,000
Alternate(possible rock sub-strata for water, sewer,drainage,elec, tel)	=	332,500

Site # 4

Water - 400'(100' offsite,300 onsite)	= $	22,400
Sewer - 900'(600' offsite,300'onsite)	=	63,000
Drainage - 400' onsite	=	36,000
Elec/Telephone -250'(50' offsite,200'onsite)	=	12,500
Grubbing & Grading 8 acres	=	160,000
	$	293,900

Note: An additional county water storage charge of approximately $25,000 will apply to the selected site as a one-time charge.

Summary - Cost Considerations for Candidate Sites:

	Acquisition Cost	Development Cost	Total
Site # 1	$2,377,069(8.5ac)	$ 445,490	$2,822,559
Site # 2	2,721,560(8.5ac)	651,124 (A) 604,944 (B)	3,372,684 3,326,504
Site # 3	2,509,056(8ac)	191,500	2,700,556
Site # 4	2,874,960(11ac)	293,000	3,167,960

ARCHAEOLOGICAL REPORT

for

Site Selection Study/EIS

NEW KIHEI ELEMENTARY SCHOOL

KIHEI, MAUI

JULY, 1991

BISHOP MUSEUM

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APPENDIX B

Ms. 031891

Archaeological Surface Assessment of Four Alternative Lots for the Kihei School Site Selection Kihei, Wailea, Makawao, Maui Island

by

Jeffrey Pantaleo, M.A.
and
Aki Sinoto

for

Comprehensive Consulting Services of Hawaii
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Kailua, Hawai'i 96734

March 1991

Public Archaeology Division
Applied Research Group
Bishop Museum
Honolulu, Hawai'i

INTRODUCTION

Under contract to Comprehensive Consulting, the Applied Research Group, Bishop Museum, conducted an archaeological surface assessment on four separate lots proposed for selection of the Kihei School site. This assessment involved walk-through surveys to identify the presence/absence of archaeological sites and making recommendations for any subsequent archaeological procedures needed.

Lots 1 and 2 (TMK 3-9-19:4,6) and Lot 4 (TMK 3-9-04:75,76,129) are located in Kihei, and Lot 3 (TMK 2-1-8:42) is located in Wailea, Maui Island (Figures 1 -4). Lots 1, 2, and 3 were surveyed by Jeffrey Pantaleo, Bruce Longton, and Andree Conley between November 27-29, 1990; and Lot 4 was surveyed by Aki Sinoto on March 14, 1991. All personnel are members of the Public Archaeology Division, Applied Research Group, Bishop Museum.

Project Location

Lot 1 (28.57 acres) and Lot 2 (28.45 acres) are adjacent parcels, located west of Kanakanui Road and north of Iliwai Loop. Lot 3 (23.193 acres) is located west of Kapili Road; east of Wailea Alanui Road; south of Kilohana Park; and north of Wailea Kialoa Homesteads. Lot 4 (c. 9 acres) is located north of Kilohana Drive between Kauhale Street and Kihei Road and composed of portions of three adjoining TMK lots (TMK 3-9-04:75, 76, and 129).

Environment

The topography in all four lots is flat to gentle slopes with lowlying knolls and intermittent dry drainages. Lot 3 exhibits a steep ridge in the southwest quadrant leading down to Wailea Alanui Road. Vegetation in all lots consists of *kiawe* (*Prosopis pallida*), *koa haole* (*Leucaena glauca*), and various dry grasses. *Kiawe* is especially dense in Lots 1 and 2.

SURVEY RESULTS

Results of the archaeological survey identified nine sites within Lots 1 and 2 (Temporary sites #1 through 9), one site in Lot 3 (Temporary site #10), and two sites in Lot 4 (Temporary sites #11, and 12):

Temporary site #1 is a platform located on a low knoll. It is constructed of angular basalt boulders/cobbles, measures 14.3 by 7.6 by 1.3 meters, and the west end is faced in order to level the surface. Abundant historic artifacts are scattered in the platform including bottles, pipes, wire, ceramics, a wagon frame, in addition to midden.

Temporary site #2 is a modified outcrop located on a low knoll. It is constructed of rounded and subangular basalt boulders/cobbles and measures 2.6 by 3.3 meters. The area around the site has been disturbed by historic activity.

Temporary site #3 is a midden scatter located along a gentle swale. It is unknown whether the scatter is *in-situ* or washed down from road-fill.

Temporary site #4 is a rock mound located on a low knoll. It is constructed of subangular basalt boulders/cobbles and measures 3.3 by 1.0 meters.

Temporary site #5 is a rock mound located on a low knoll. It is constructed of subangular basalt boulders/cobbles and measures 2.0 by 1.4 meters.

Temporary site #6 is a series of three rock mounds located on a low knoll. It is constructed of rounded and subangular basalt boulders/cobbles and measures 2.0 by 2.0 meters.

Temporary site #7 is a terrace located along a low knoll. It is constructed of subangular basalt boulders/cobbles and measures 1.7 by 0.3 by 0.6 meters.

Temporary site #8 is the remains of a historic shed located on a cleared sandy wash area. The shed has been disturbed and only scattered lumber and the frame is remaining. The surrounding area is littered with midden and a barbed-wire fence is running North to South along the western side of the shed.

Temporary site #9 is a rock mound located on the northern border of Lot 2. It is constructed of rounded and subangular basalt cobbles/pebbles and measures 3.0 by 3.0 meters. Scattered midden was found on the surface. Since the boundaries were not defined on the ground, this feature which occurred close to a parcel boundary may be in the neighboring parcel.

Temporary site #10, located on Lot 3, is a multiple stacked, free-standing wall constructed of subangular basalt boulders/cobbles. It is located on top of a ridge and extends down into a swale, and is oriented in an East-West direction. It measures 25.4 meters in length, 0.6 to 0.5 meters in width, and 1.0 to 1.8 meters in height.

Temporary site #11, located on Lot 4, is a segment of a deteriorated, low, stacked stone wall fronting a low knoll. Its long axis is oriented north to south and measures c. 30 meters long. It ranges from .30 to 1.00 meter in height and is .50 meter wide.

Temporary site #12, located on Lot 4, is another segment of a low, stacked stone wall built atop a low ridge alongside a shallow gulch close to the northern boundary of Lot 4. Its orientation is roughly east to west and although a roughly 60 meter long segment was observed, the total extent is undetermined as yet. The wall segment ranges from .30 to .80 meter in height and .50 meter in width. The wall is deteriorated and tumbled in several areas.

RECOMMENDATIONS

All of the sites meet Criterion D of the National Register Criteria for Evaluating Significance of Historic Properties, which assigns significance to sites which have yielded, or are likely to yield, information important

to the further understanding of traditional culture, history, or prehistory.

Upon final site selection, it is recommended that additional work in the form of an inventory level survey be completed prior to development. This work would include determinations of age, function, and significance of specific features. A historical literature and documents search is also recommended.

Bibliography

Cordy, Ross
1977 "Cultural Resources Study: Archaeological Reconnaissance at Kihei Flood Control Project, Kihei, Maui." Army Corps of Engineers.

Leidemann, Helen
1989 "Archaeological Reconnaissance Survey for Keonekai Development, Kihei, Maui. TMK 3-0-14:02.

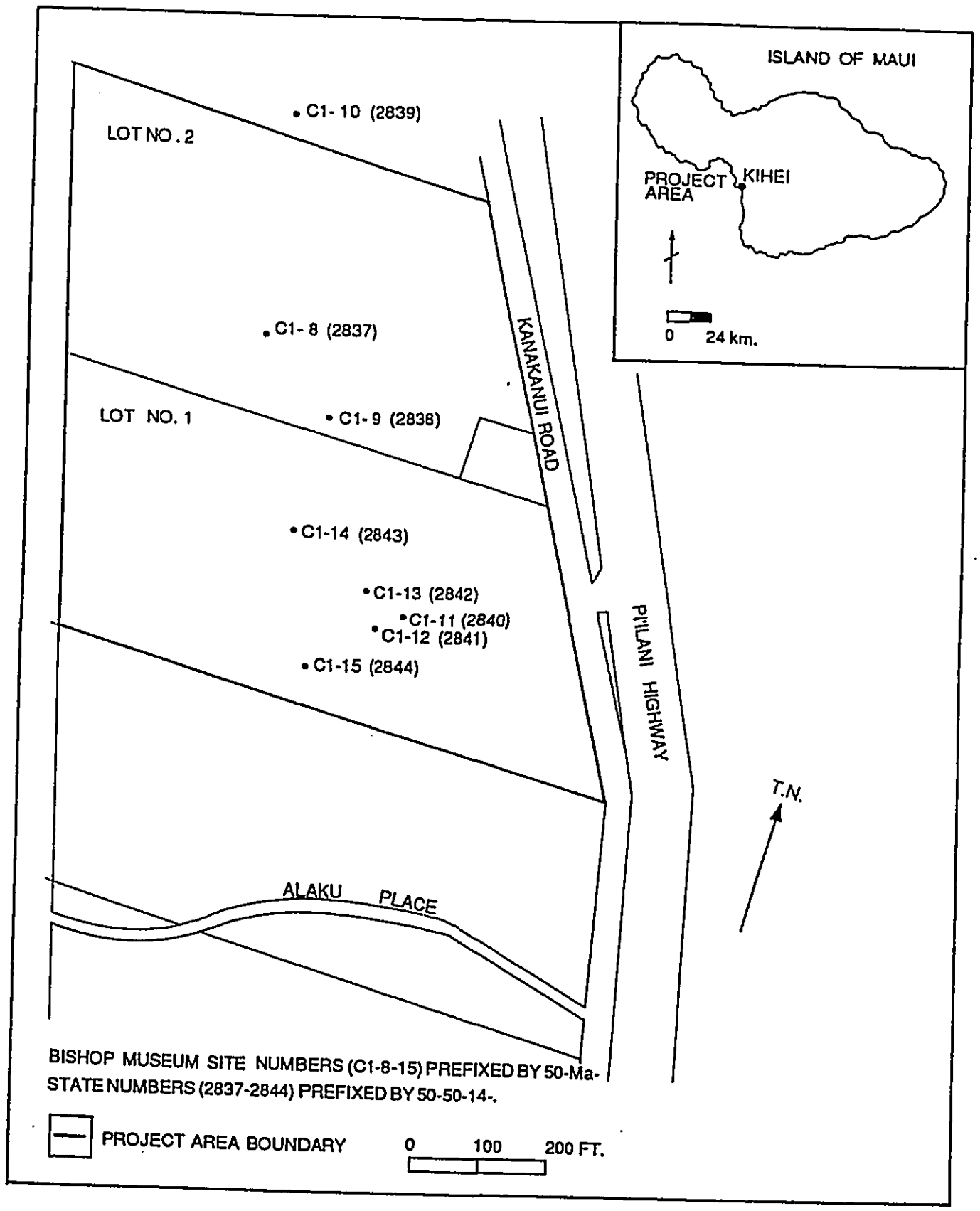

Fig. 1. Kihei Schools Project Area Showing Archaeological Site Locations.

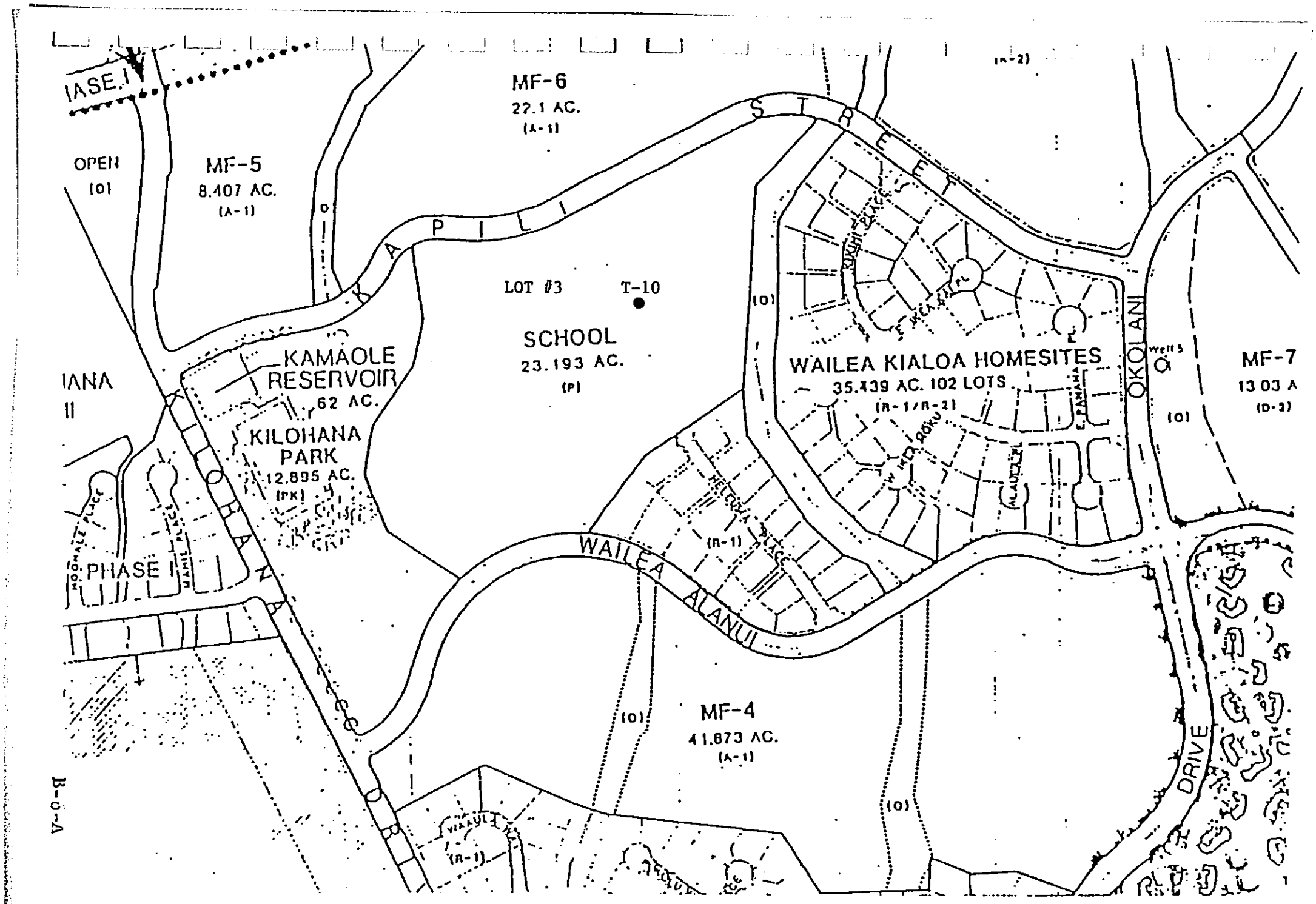

Figure 3. Location of Temporary Site 10 in Lot 3

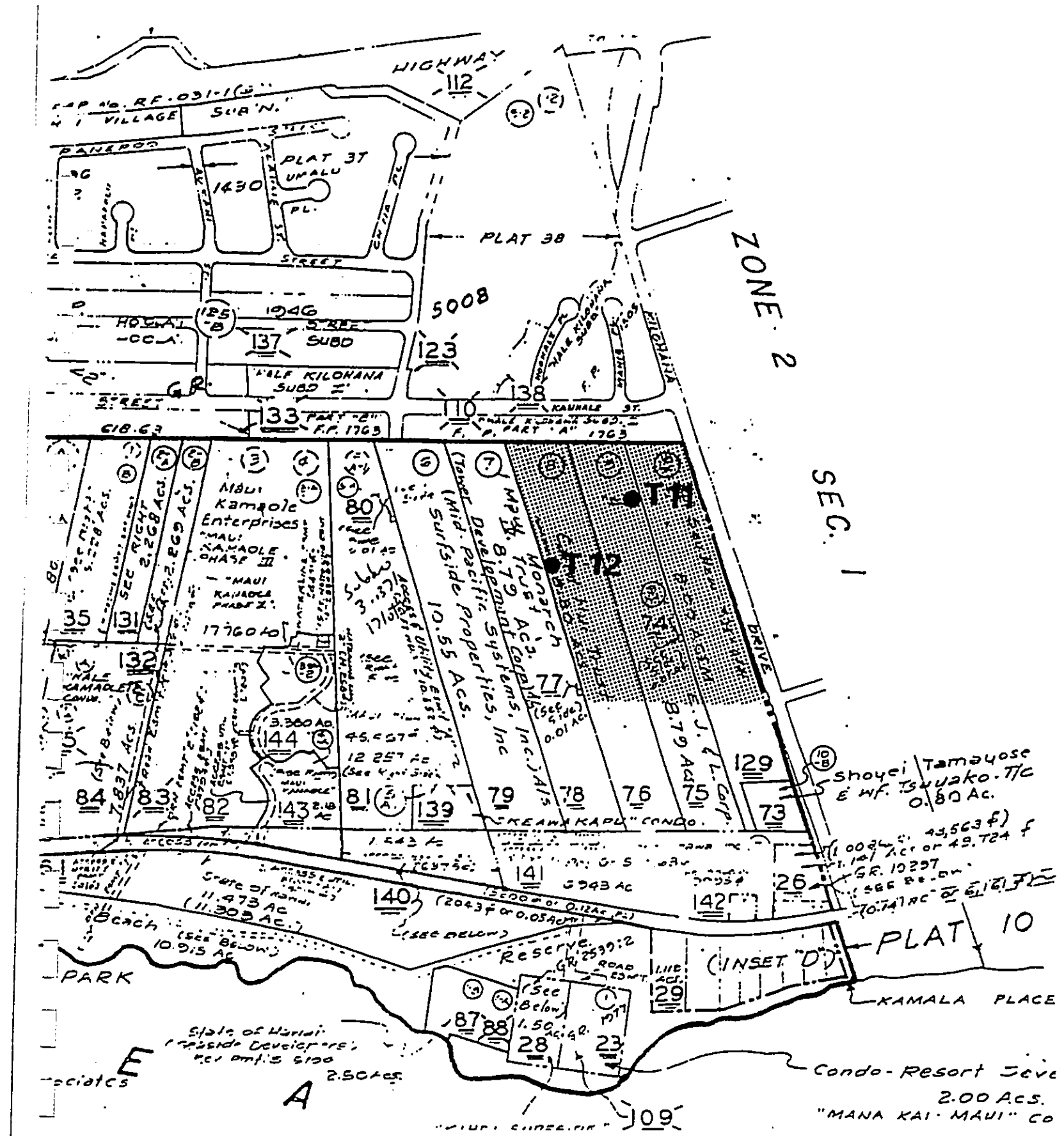

Figure 4. Locations of Temporary Sites 11 and 12 in Lot 4

MS. 073091

ARCHAEOLOGICAL INVENTORY SURVEY OF PROPOSED KIHEI ELEMENTARY SCHOOL SITE LOTS 1 AND 2 KAMA'OLE, WAILUKU, MAUI ISLAND

PART I
HISTORICAL BACKGROUND

by
Gwen Hurst

PART II
ARCHAEOLOGY

by
E. Dow Davidson, Jr.
Project Director

Jeffrey Pantaleo, M.A.
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348 Dune Circle
Kailua, Hawai'i

July 1991

Public Archaeology Section
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INTRODUCTION

Under contract to Comprehensive Consulting Services of Hawaii, the Applied Research Group (ARG), Bishop Museum, conducted a Phase I archaeological inventory survey (Bishop Museum Project 473) on Lots 1 and 2 in Kama'ole, Wailuku District, Maui Island (Fig. 1). This survey was performed in conjunction with site selection for the new Kihei Elementary School. Lot 1 (28.6 acres) and Lot 2 (28.5 acres) are adjacent parcels, located west of Kanakanui Road, north of Iliwai Loop, south of Plat 18, and east of Plat 20. Of the six alternative parcels, the subject parcel held the most potential for significant archaeological remains.

An initial surface assessment was conducted by Jeffrey Pantaleo, Bruce Longton, and Andree Conley in November 1990 and resulted in the identification of nine structural features, each of which was assessed as significant in meeting Criterion D of the National Register Significance Criteria that states "that the site has yielded or has the potential to yield information significant for our understanding of traditional culture, history, and prehistory of the region." Subsequent Phase I inventory survey work was conducted between 15 May and 22 May 1991 by E. Dow Davidson, Jr., Andree Conley, Heather Caldwell, and Tina Mangieri, all of the Public Archaeology Section, Applied Research Group, Bishop Museum. This Phase I work entailed the detailed plan mapping of eight features, the excavation of two subsurface test units, and two shovel tests.

ENVIRONMENTAL SETTING

The project area is located on the leeward slope of the Haleakalā Volcano, ranging from c. 0.7 to 0.9 km (0.4 to 0.6 mi.) inland from the coast. Elevations range from c. 18 m (60 ft) to 33 m (110 ft) above mean sea level, placing the project area within vegetation zone "A" (Ripperton and Hosaka 1942:22), primarily consisting of xerophytic lowland shrub. Rainfall averages between c. 250 and 500 mm (10 and 20 in) per year, the majority falling during the winter season. Topography consists of gentle slopes with low knolls and shallow gullies. Soils in this region are of the Keawakapu-Makena association, which are gently sloping to moderately steep, well-drained soils that have a fine- to medium-textured subsoil and are shallow to deep over fragmental lava on low uplands (Foote et al. 1972)

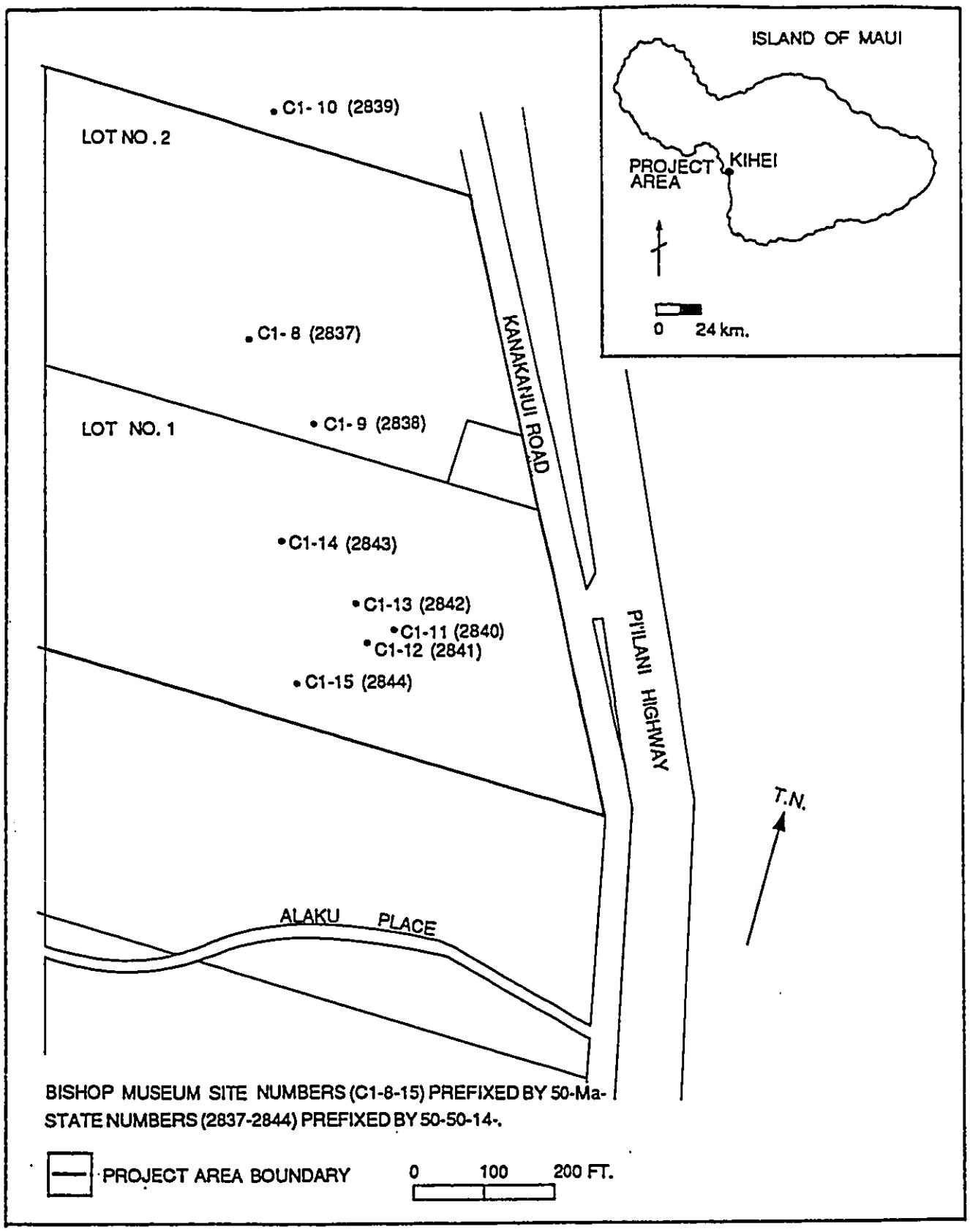

Fig. 1. Kihei Schools Project Area Showing Archaeological Site Locations.

Vegetation included *kiawe* (*Prosopis pallida*), *koa haole* (*Leucaena glauca*), and *pilipili* grass (*Bidens pilosa* L.) with occasional concentrations of *ilima* (*Sida fallax* Walpers). Various other species of unidentified shrubs and grasses are also present in the study area.

PREVIOUS ARCHAEOLOGICAL WORK

Previous archaeological work in and near the project area includes investigations by Cordy (1977), Sinoto (1978), Leidemann (1989), and Hammatt and Shideler (1990). Cordy calls this entire area, between a quarter mile from shore and five to seven miles from shore, the generally unexploited "barren zone". He postulated that "(1) few sites would occur in the area, (2) they would be temporary in nature (e.g. rest stops), and (3) they would be associated with transportation routes (e.g. trails)" (1977:12).

Leidemann conducted a surface survey of a 9.5-acre parcel in the Keonekai Estates Development, situated midway between Kihei Road and Pi'ilani Highway. Approximately two-thirds of this parcel, bounded on the north by Alaku Road and on the south by Keonekai Road, had been extensively bulldozed. No surface archaeological structures or other cultural features were found in the intact portion of the parcel.

Sinoto (1978) surveyed a 5-acre parcel of land on the coast bounded on the north by Kama'ole Beach Park, on the south by Mana-Kai Condominiums, on the east by Pi'ilani Highway, and on the west by the high-water mark along the shoreline. Approximately 50% of the project area had been bulldozed prior to his survey. Sinoto found a paucity of surface and other cultural features and indicated that this was due partly to previous extensive surface disturbance in the project area from bulldozing, clearing, and ranching activities.

Seven sites were found in this coastal parcel. These include a previously recorded house site (BM Site 50-Ma-C1-1)*, two previously unrecorded U-shaped structures (Sites C1-2 and 5), a square enclosure (Site C1-3), a curved wall segment (C1-4), a tumbled wall with an associated circular enclosure (Site C1-6), and a triangular cairn (Site C1-7). Further

*In Bishop Museum site numbering system, 50 = State of Hawai'i; Ma = Maui Island; C = District; 1 = Ahupua'a; and 1 = unique site number.

PART I

HISTORICAL BACKGROUND

by

Gwen Hurst

work was recommended for Sites C1-1, -2, and -4 through 7. Preservation was recommended for Site C1-3.

Hammatt and Shideler (1990) reported that a majority of a 54-acre parcel in Kama'ole, surveyed by Cultural Surveys Hawaii (CSH), had been previously bulldozed and greatly impacted by military (WW II) and ranching activities. Eight sites were found, including four possible burials (CSH Sites 3, 4, 5, and 7), a midden scatter (CSH Site 1), a platform (CSH Site 2), a site remnant (CSH Site 6), and a C-shape (CSH Site 8).

Excavation of five of these sites (CSH Sites 2 through 5 and 7) were conducted to determine the presence/absence of human burials. All test units were excavated to bedrock or sterile deposits and no burials were found; however, a large quantity of midden, charcoal, and basalt flakes were recovered. Site 2 was interpreted as a possible planting area. Sites 4 and 5, a low pile of basalt boulders and a small modified bluff respectively, were interpreted as shelters.

Hammatt and Shideler suggested a shrine function for two sites (CSH Sites 3 and 7). Site 3 contained a large number of coral and water-rounded basalt pebbles/cobbles on the surface, and predominantly sea urchin with sparse fish bone and marine shell in the underlying cultural deposit. Site 7 consisted of 100+ coral and water-worn basalt cobbles/pebbles localized on a low bedrock/soil ledge. Large quantities of marine shell were recovered from deposits underlying this small structure. Although no further work was recommended on the two possible shrines, it was suggested that they be preserved.

INTRODUCTION

The Kihei Project site, located in Kama'ole Ahuapua'a is in the Kula District of south Maui, set aside by the Hawaiian Homes Commission for Kama'ole Homestead Lands in 1927. The site area is comprised of Kama'ole Homestead Lots 24-A and 25-A (Lots 1 and 2 in Fig. 1) and is bounded on the east side by Kanakanui Road and on the remaining sides by other Kama'ole Homestead lots. Lots 24-A and 25-A are further divided into parcels 4-8 of TMK 3-9-19 (formerly TMK 3-9-04:13, 14, 124, and 127).

SITE AREA 1850-1889

Division and redistribution of Hawaiian lands owned and inherited by descendants of the Royal family was begun in February 1846 by the Board of Commissioners to Quiet Land Titles. The majority of lands in Kama'ole were "reserved for the government cattle range" (Hawaii Privy Council 1848:3.435); therefore, only 10 of 25 applications filed in 1849 for Lands Claim Awards totaling 96.2 acres were awarded (Hawaii Board of Commissioners 1929:178-179). W. P. Alexander, government surveyor, was appointed on 4 January 1850 to survey and sell the lands of Kama'ole by Land Patent Grants (Hawaii Department of the Interior 1850:2.500). Between 1850 and 1883, 67 land grants totaling 732.92 acres in Kama'ole were sold. Thirty-eight of the grants, being unimproved lands, were awarded in 1850 at $1.00 an acre (Hawaii Board of Commissioners 1916:71-73). Specific locations of Land Claim Award and Land Patent Grants appear on most of the 1885 Government Survey Map of Maui (Alexander 1885). Kama'ole, one of the exceptions, is mapped with a notation that the *ahupua'a* (a traditional Hawaiian land division usually from the mountains to the sea) consists of "various grants". Reconstruction of the complicated locations of these early awards and grants in Kama'ole has not been attempted.

SITE LOCATION/HOMESTEADS 1889-1936

The first Hawaiian homestead legislation, "an act to facilitate the acquiring and settlement of homesteads", was passed on 29 August 1884. At Kula, Maui, surveyed homestead lands were opened for settlers in 1889 (Thrum 1890:98). In Honolulu, the local newspaper reported that "the new homestead lots in Kula are very desirable for raising corn and potatoes..." (Daily Pacific Commercial Advertiser, 1889:3.4). Being homestead leases, most of the

leased lots were subleased to the Kula Chinese community at the 3,000-foot elevation of Haleakalā (Mark 1975:1-3). No homestead leases for Kama'ole are recorded between 1889 and 1919 (Hawaii Commissioner of Public Lands, 1889-1919). During this period and at the turn of the century, in the southern portion of Kama'ole, two Chinese grocery stores were operating on an exchange system with the "Chinese farmers [at Kula] and Hawaiian Homesteaders" trading imported goods for corn, potatoes, poultry, and pigs (Mark 1975).

Ninety-nine-year homestead leases of public lands in Kula were again advertised in 1911. In contrast to promoting the Kula lands as being desirable for corn and potatoes, as had been done in 1889, the Kihei public lands began to be advertised as "kiawe forest...absolutely no good for homesteading purposes" (The Maui News, August 1911:2.1 ed.). During that year in Kihei, *kiawe* beans (for cattle fodder) were bringing harvesters $15.00 a ton, 100-600 cords of *kiawe* wood per lot were being cut, and squatters were awaiting the "abandonment of the homesteads near Kihei" (The Maui News, November 1911:5.1).

The Chinese community at Kula, who were dependent upon trade with the grocers in Kama'ole,

> never re-attained the level of bustling activity it had enjoyed in the early 1900's. Among the reasons which had prompted the exodus of many Kula families during the 1910's and 20's were: severe drought [1905] which ruined crops and killed livestock, soil which was reaching depletion level after years of harvesting and tilling, lack of educational opportunities for their children, and loss of land due to parceling of homesteads [Mark 1975:37].

KAMA'OLE HOMESTEADS

Following the Hawaiian Homes Commission Act of 1920, 6,000 acres of land in the Kula District were listed as available lands for Hawaiian homesteads by the Hawaiian Homes Commission (State of Hawaii 1968:143). A plan on opening the 6,000 acres divided into 70 farm lots for homesteads in the "rich Kula district" was announced by the Hawaiian Homes Commission in 1927 (Maui News, 1927:1.2). Kama'ole homestead lots were sold by right of purchase lease grants to native descendants "of not less than one-half part of the blood of

the races inhabiting the Hawiian Islands previous to 1778 (State of Hawaii 1968:140).

Grant 10,383 (Kama'ole Homestead Lot 25-A) was sold by Lease No. 315 to William Kuaana, Sr. on 28 May 1936 (Lot 1 in Fig. 1). Purchase price of the lot, consisting of 28 57/100 acres, was $285.70, or $10.00 an acre (Hawaii Department of Land and Natural Resources 1936:65.335-337). His son, William Kuaana Jr., obtained the western adjoining Kama'ole Homestead Lot 25-B by Grant 10,071. William Kuaana, Sr. is listed in the Maui County directories from 1930 as a ranchman until his death on 17 November 1938 (Polk-Husted 1930-1938). Probate No. 3283 in the 2nd Circuit Court transferred the property to his son on 8 June 1939 (Hawaii Department of the Tax Commissioner, TMK 3-9-19:04). William Kuaana, Jr. is listed as a "laborer" prior to 1940 (Polk-Husted 1938/39:761) and in the early 1940's as "keeper" at Kihei Park (Polk 1941/42:914). Lot 25-A was sold to Harry T. and Esther Leong in 1958 and was purchased by Kirchmeyer Development in 1987 (Hawaii Department of the Tax Commissioner, TMK 3-9-19:04).

Kama'ole Homestead Lots were mapped by a Hawaii Territory survey in 1936, and the 1936 survey map was revised in 1938 (Kanahele). Original survey points were either marked with spikes in *kiawe* trees, or with pipes at lot boundary corners. The corners of the project site were marked with pipes according to the map, and no structures on the site appear on the 1936 map. On the revised 1938 map, the nearest structure is a small shed on the southwest corner of the adjoining lot (Kama'ole Homestead Lot 25-B) belonging to William Kuanna, Jr. The nearest water source appears to be a "dry stream" mapped south of the site running through the southwest corner of Kama'ole Homestead Lot 27-B (obtained by Land Patent 7607 in 1920).

Grant 10,787 (Kama'ole Homestead Lot 24-A) was sold to Mrs. Mabel Akuna Wallace under purchase Lease No. 228 on 24 September 1940 (Hawaii Department of Land and Natural Resources 1940:70.313-315). Originally consisting of 24.43 acres, the lot (Lot 2 in Fig. 1) was later divided into parcels 5-8 of TMK 3-9-19. Parcel 7 was sold to Harry J. Tiddeman in 1958, and Parcel 8 (created from Parcel 5) was deeded to Hawaii-Canadian Resort, Ltd. in 1965. Parcel 5, in the mid-east portion of the site, was sold to Anna M. and David Cabacungan in 1977, with Kannata-Kihei Resort purchasing the remainder of Parcel 6 that year (Hawaii Department of the Tax Commissioner, TMK 3-9-19).

SUMMARY

The historical literature and documents search undertaken to assist in the identification and dating of the Kihei Project features and surface remains obtained general information relating to the overall Kula District, and no specific site information prior to 1936 was located. Kama'ole Ahupua'a was used for cattle grazing in the 1840's, and with the exception of lands granted to private owners between 1850 and 1884, was retained as Hawaiian government public lands available for Land Patent Grant Purchase. Homestead leases to the site property after 1889 were never obtained or applied for; the initial purchase of the site lots occurred in 1936 and 1940.

Land use of the site is undocumented and activities in the area are vague. The dry location of the site, which is subject to drought, indicates that little, if any, agricultural activities were pursued. A continuation of the prior use of the land for cattle grazing until the death of ranchman William Kuaana, Sr. in 1938 is indicated. The dating of surface artifactual remains indicates that some deposits occurred between 1894 and c. 1918. These artifactual remains may be related to the *kiawe* bean and wood harvest which was intense in the Kihei area until the early 1920's, or related to prevalent squatter use. No structures are mapped on the property in the 1936 government survey, and structural remains currently on the site were apparently constructed after this date.

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PART II

ARCHAEOLOGY

by

Dow E. Davidson

SCOPE OF WORK

The initial assessment that the remains appear to meet Criterion D of the National Register Significance Criteria requires that proper mitigation measures, such as a program of progressively intensive data recovery or *in situ* preservation, be implemented. This current investigation is a Phase I Inventory Survey that includes detailed locational and plan mapping of sites, with limited test excavations to permit assessments of extent, depth, and chronology of subsurface components.

METHODOLOGY

Maps of the eight sites were drawn with compass and tape at a scale of 2 cm = 1 m. Site T8 was sketch mapped at a scale of 1 cm = 1 m. All measurements were taken using the metric system. Black and white and color photographs were taken of each site. Black and white photographs are catalogued under roll numbers Ma(a)- 340 and 341.

Test units were manually excavated using trowel, dustpan, and broom. Vertical control was by natural layer. Soil descriptions have been based upon standard profiles (Foote et al. 1973). The only surface artifacts collected were diagnostic bottle glass sherds. All excavated material was sifted through nested 1/4- and 1/8-inch mesh screen. The absence of any prehistorical cultural materials resulted in the decision not to gather soil samples for laboratory analysis.

SURVEY AND EXCAVATION RESULTS

SITE 50-Ma-C1-8 (STATE SITE 50-50-14-2837) (Fig.2)

Site C1-8, 27.0 m (88.6 ft.) above mean sea level, is a platform located on a low knoll in Lot 2, approximately 240 m to the west of Kanakanui Road and about 30 m north of Lot 1 (Figs. 3 and 4). The platform is constructed of multiple stacked (4 - 8 courses) basalt boulders and cobbles. There are also sparse occurrences of sandstone cobbles used in the construction of the platform. The subangular rocks range in size from large (c. 1.0 m diameter by 0.2 m thick) boulders to small cobbles. The platform's long axis is oriented

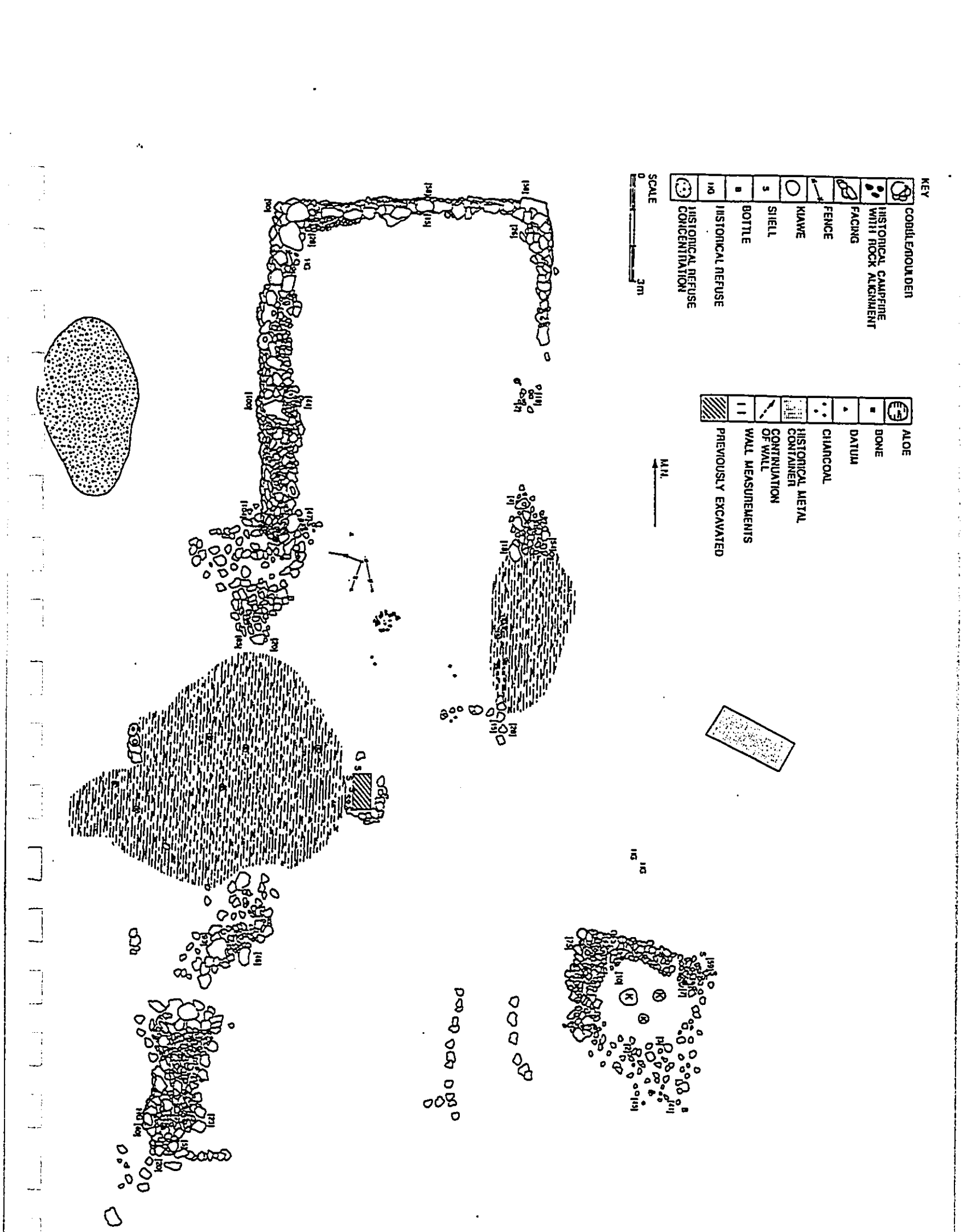


Fig. 2. PLAN VIEW, SITE 50-Oa-C1-8, PLATFORM. Mapped using tape and compass.

Fig. 3. SITE 50-Ma-C1-8, NORTH WALL OF PLATFORM. View to Southeast. BM Neg. No. Ma(a)340-33.

Fig. 4. SITE 50-Ma-C1-8, NORTHWEST PORTION OF PLATFORM. View to Southeast. BM Neg. No. Ma(a)340-32.

from north to south and is c. 27.0 m in length overall. The platform ranges from 8.0 to 10.0 m in width.

The walls of the structure exist on the north, west, and partially on the east (discontinuously for c. 15.0 m). The exterior heights of the platform walls range from 0.58 to 0.90 m on the north wall, 1.04 to 0.40 m on the west wall, and from 0.18 to 0.28 m on the east wall. Interior wall heights range from 0.02 to 0.44 m. The platform wall is in good to fair condition, the northwest and northeast corners exhibiting the best preservation of facing and corners. Significant tumbling has occurred along the western wall. The west wall shows evidence of a possible secondary wall or terrace (2 - 3 courses), with a multiple stacked boulder wall extending 3.0 m to the west from inside the platform.

A double alignment of c. 0.30-m-diameter boulders is located in the southeast corner of the platform and appears to form a "walkway" measuring 1.5 by 3.0 m.

Three meters to the east of this alignment is a feature consisting of multiple stacked boulders and cobbles forming a round, soil-filled structure c. 4.0 m in diameter. The wall of this circular structure ranges from 0.45 to 0.75 m in height on the exterior. The interior height ranges from 0.02 to 0.20 m. The interior of the structure is filled with soil and has three large *kiawe* trees growing in the center.

Hammatt and Shideler (1990) has previously tested Site C1-8 and characterized the platform (CSH Site 2) as being associated with ranching activities. They excavated a small semicircular boulder alignment in the west central area of the platform to determine the presence of a possible burial. The 1.0 by 0.5-m excavation unit reached sterile bedrock confirming the absence of a burial. Hammatt and Shideler theorized that the alignment was either an ash disposal or *aloe* planting bed. Due to these results, no additional subsurface testing was conducted at the site.

Historical artifacts associated with this site include a large steel tank (c. 2.3 by 1.0 by 1.0 m) and a galvanized iron pipe, located c. 5.0 m east of the eastern edge of the platform. Several bottle fragments were also found associated with the round, soil-filled structure at the southeast corner of the platform. One of these was identified as being manufactured prior to 1918. An additional diagnostic bottle fragment was collected for analysis. This Maui Soda and Ice Works bottle is cylindrical and aqua-colored with air

vents around the shoulders. It was manufactured by the Pacific Coast Glass Works in a chilled iron mold, which is a pre-machine-manufacturing technique. The manufacture date of this bottle can be placed in a range from 1900 to 1924 (Official Gazette 1921).

Other Historical Period artifacts discovered at the site include fragments of slate, ceramics, cooking vessels, an animal feeding trough, lumber, chicken wire, several wooden fence posts with barbed wire, a 90-pound asphalt rollroofing, various truck or automobile parts, canned food tins, cushion springs, a child's play wagon frame, an old typewriter, pencil fragments, and a kerosene cook stove (labeled "New Perfection No. 74"). In addition to these historical items that generally date between 1900 and 1930, recent use of this site by transients was apparent by the accumulation of recent discarded items.

The vegetation at this site is generally the same as has been described for the entire project area, with the exception of several large (c. 6.0 by 7.0-m) beds of *aloe* plants. These plants were once a common homegrown antiseptic and purgative. Additionally, about 7.0 m west from the western edge of the platform is a row of five very large sisal plants that possibly were planted for ornamental purposes.

Discussion

It would seem reasonable that the platform represents a structure associated with cattle ranching or a schoolhouse. Many of the abundant historical artifacts have functions relating either to the production and preparation of food (cook stove, pots, canned food tins) or for classroom activities (slate, pencils, typewriter, etc.). If it were a ranching structure, it may have functioned as a cook house and *paniolo* camping area. The limited amount of lumber at the site suggests that a large, formal building probably did not exist and only small animal pens and a cooking structure had been present. The circular boulder structure outside the southeast corner of the platform may be a filled-in water well. If the site were a rural school, it is not unreasonable that the cooking facilities could have been associated with the school. Because of the lack of evidence for a large (i.e., the size of the platform) structure, the school may have been an open-air site with a thatched or canvas shelter.

The analysis of the Historical Period artifacts leads to the conclusions that this structure was constructed c. 1900 and used until c. 1930. It is also apparent that the site has been used as a camp site by transients.

SITE 50-Ma-C1-9. (STATE SITE 50-50-14-2838)

Site C1-9, an L-shaped alignment located at the base of a low knoll in Lot 2 (see Fig. 1), is approximately 170 m west of Kanakanui Road, 5 m north of Lot 1, and 29 m above mean sea level. The alignment is constructed of large, subangular basalt cobbles; the northern portion measures c. 1.15 m in length and the southern portion c. 1.85 m in length. The structure averages 0.40 m in height and is oriented northwest to southeast. The structure is in excellent to good condition. The vegetation at this site is the same as described above for the overall project area. A 0.15 by 0.20-cm shovel test (ST1) was placed in the interior corner of the alignment to determine the presence or absence of cultural materials. Only stratigraphic Layer I is present in ST1.

Layer I is a dark yellowish brown, very fine silty sand. It contains abundant organic content, consisting of decomposing *kiawe* seeds and fine grass roots (O horizon). No prehistorical cultural remains were evident.

Discussion

The absence of midden or artifacts at this site suggests that the alignment was related to agriculture or temporary habitation. Handy and Handy in their "Native Planters of Old Hawaii" (1972: 510-11 IN Cox 1976:13) discuss the dry Kula District as a famous sweet potato growing region: "Kula was widely famous for its sweet potato plantations. 'Uala was the staple of life here". It is possible that the alignment's position at the base of a knoll was intended to collect soil as it eroded downslope.

SITE 50-Ma-C1-10 (STATE SITE 50-50-14-2839)

Site C1-10, a modified outcrop with a concentration of coral, is most likely located outside of the project area, which is situated approximately 215 meters west of Kanakanui Road and about 150 m north of Lot 1. This site was previously tested (1-m^2 unit) by Hammatt and Shideler (1990) in order

to identify the presence/absence of burials. No burials were discovered, but abundant coral and water-worn basalt pebbles and cobbles were found. The uppermost 10.0 cm contained fish bone and shell midden. Hammatt and Shideler interpreted this site as being a shrine. Because of the previous work completed at this site, preservation is recommended.

Discussion

The previous excavation of Site C1-10 removes any question as to the existence of a burial - there were none present. The abundance of coral, basalt manuports, and marine midden strongly suggests a function as a Hawaiian religious shrine. A specific date is unobtainable because of the absence of charcoal for radiocarbon dating.

SITE 50-Ma-C1-11 (STATE SITE 50-50-14-2840)

Site C1-11, a circular basalt mound, is located approximately 130 m west of Kanakanui Road and 70 m south of Lot 2. It is constructed of boulders and cobbles and measures 1.79 by 1.69 m and 0.70 m in height. The mound appears to be unaltered with minimum tumbling. The soil at the base of the mound is a yellowish brown, fine silty sand. No surface artifacts were present. No subsurface testing was performed because of the negative results at Sites C1-12, -13, and -14.

Discussion

The absence of any cultural remains, along with the construction of the rock mound, suggests agricultural use for planting sweet potato (Handy and Handy 1972:129-131).

SITE 50-Ma-C1-12 (STATE SITE 50-50-14-2841)

Site C1-12, a low linear basalt mound, is located approximately 83 meters west of Kanakanui Road and 68 m south of Lot 2 (Fig. 5). The mound measures 3.8 m long, 2.0 m wide, and 0.5 m high. It is constructed of subangular and angular boulders and cobbles and is in good to fair condition. The vegetation at this site is the same as described above for the overall project area.

Fig. 5.. SITE 50-Ma-C1-12, MOUND. View to West.
BM Neg. No. Ma(a)340-3.

A 1.0 by 0.5-m shovel test (ST1) was placed in the mound to identify the presence or absence of cultural materials. Rock fill was removed from the center west section of the mound. Only stratigraphic Layers III and IIIa were present (Fig. 6).

Layer III is a medium brown, very fine, silty sandy loam. It contains sparse, fine grass roots and sparse cobbles. No cultural remains were evident.

Layer IIIa is a light gray, very fine silt with many fine rootlets and decomposing basalt bedrock. No cultural materials were present.

Discussion

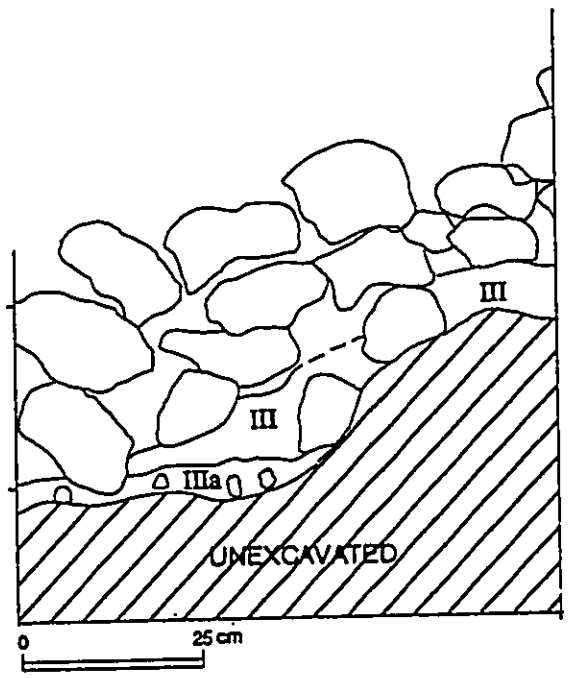
The absence of any cultural remains suggests an agricultural feature.

SITE 50-Ma-C1-13 (STATE SITE 50-50-14-2842)

Site C1-13, two groups of irregularly shaped rock mounds along low lying knolls, are located approximately 120 m west of Kanakanui Road and 45 m south of Lot 2. The conditions of the mounds are good to excellent. The western group consists of three mounds that average 2.0 m in diameter and 0.5 m in height. This group is located on a gentle slope, 60.1 m east of Site C1-14 in an area of thick grass and *kiawe* growth. The mounds are constructed of subangular basalt boulders and pahoehoe slabs (Fig. 7).

The eastern group consists of two rock mounds that average 2.5 m in diameter and 0.4 m in height and are constructed of subangular basalt boulders and pahoehoe slabs. These two mounds are oriented north to south and are situated on the side of a low knoll. The eastern group is 19.9 m to the east of the western group in dense *kiawe* and grass growth. No subsurface testing was performed on the mounds in the eastern group.

Two of the mounds in the western group were tested by removing the rocks down to the soil surface to determine the presence or absence of any cultural materials. Shovel Test 1, 0.50 by 0.75 m, was excavated in the westernmost mound. A large flat pahoehoe slab that capped the center of the mound led to the suspicion that this could possibly be a burial. The slab was removed and



Layer III: Medium brown, very fine, silty sandy loam; sparse, fine grass roots and sparse cobbles. No cultural evidence present.

Layer IIIa: Light gray, very fine silt; many fine rootlets and decomposing basalt bedrock. No cultural evidence present.

Fig. 6. PROFILE, SITE 50-Ma-C1-12, SHOVEL TEST 1, LINEAR BASALT MOUND.

Fig. 7. SITE 50-Ma-C1-13, MOUND. View to South.
BM Neg. No. Ma(a)340-5.

rock fill was exposed; this dense fill was consistent throughout the mound. The testing yielded no cultural material.

Stratigraphic Layers I through IIIa are present in ST1. Layer I is a dark brown, very fine silt. It contains a high organic content consisting of decomposing *kiawe* seeds and fine grass roots (O horizon). No cultural remains were present.

Layer II is a reddish brown, very fine silty sand. It contains many fine to medium roots and rootlets. Few rocks and cultural materials were present.

Layer III is a dark yellowish brown, very fine, silty sandy loam. It contains sparse, fine grass roots and abundant cobbles and pebbles. No cultural remains were evident.

Layer IIIa is a light gray, very fine silt with many fine rootlets and decomposing basalt bedrock. No cultural materials were present.

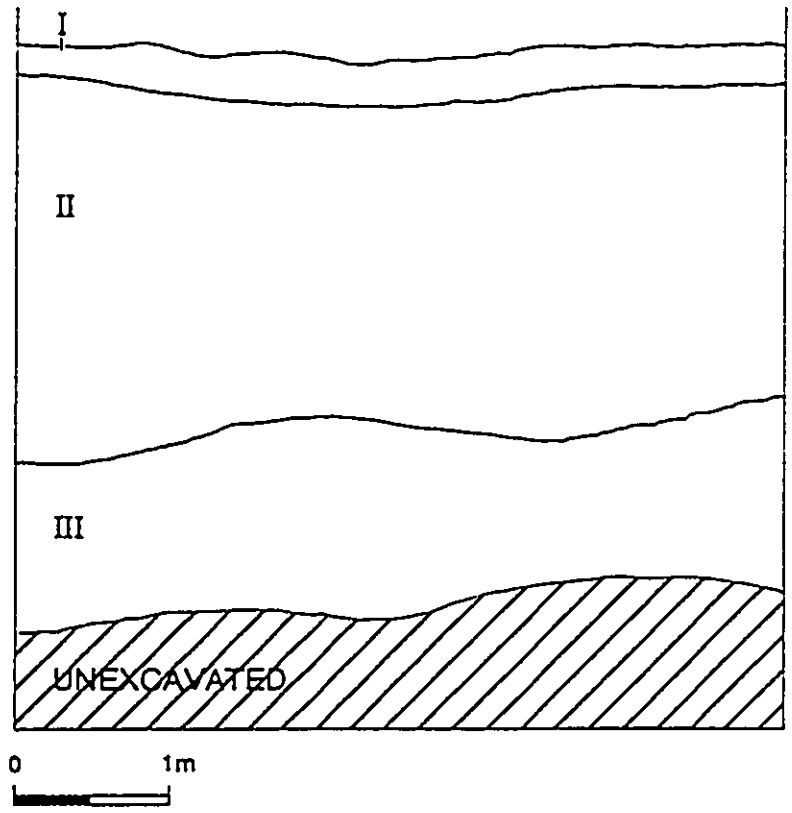
A 0.5 by 0.5-m test unit (TU1) was also excavated in the easternmost mound of the western group (Fig. 8). This mound was open to the ground surface in the center of the structure. The unit was placed straddling the southern rock alignment of the mound, exposing the open central area as well as the area beneath the rocks. Stacked surface rocks were removed down to ground surface before excavation. Three layers were excavated down to a sterile deposit of decomposing basalt at 0.62 m below datum.

Stratigraphic Layers I through III are present in TU1. Layer I is a thin layer of dark brown, very fine, silty sandy loam. It contains abundant fine grass roots (O horizon). No cultural remains were present (Fig. 9).

Layer II is a yellowish red, very fine, silty sandy loam. It contains abundant fine roots and rootlets, and many cobbles are present. No cultural materials were observed.

Layer III is a dark reddish brown, very fine, silty sandy loam. It contains sparse fine grass roots and one large *kiawe* root. No cultural materials were evident.

Fig. 8. SITE 50-Ma-C1-13, TEST UNIT 1, MOUND. View to South
BM Neg. No. Ma(a)341-20.



Layer I: Dark brown, very fine, sandy silty loam; abundant fine grass roots (O horizon). No cultural evidence present.

Layer II: Yellowish red, very fine, silty sandy loam; abundant fine roots and rootlets and abundant cobbles. No cultural evidence present.

Layer III: Dark reddish brown, very fine, silty sandy loam; sparse fine grass roots and one large *kiawe* root. No cultural evidence present.

Fig. 9. PROFILE, SITE 50-Ma-C1-13, TEST UNIT 1, ROCK MOUND.

Discussion

The absence of any cultural remains in or around these structures suggests they functioned as sweet potato cultivation mounds or some other type of agricultural feature.

SITE 50-Ma-C1-14 (STATE SITE 50-50-14-2843)

Site C1-14 is a non-terraced rock facing approximately 180 m to the west of Kanakanui Road and about 45 m south of Lot 2 (Fig. 10). The facing is constructed along an outcrop and is situated perpendicular to a dry streambed. The structure is oriented north to south and is 1.82 m long and 0.54 m wide. The upslope height of the facing is 0.28 m and the downslope height is 0.57 m. The structure is constructed of subangular and angular boulders and small to large cobbles and is in good to fair condition. The vegetation at this site is the same as described above for the overall project area.

A 1.0 by 0.5-m test unit (TU1) was excavated straddling the upslope and downslope portion of the facing (Fig. 11). Stacked surface rocks were removed down to ground surface before excavation. Three stratigraphic layers were excavated down to a sterile deposit of decomposing basalt at 0.48 m below datum (Fig. 12).

Stratigraphic Layers I and II are present in TU1. Layer I is a dark yellowish brown, very fine, silty sandy loam. It contains abundant fine grass roots and sparse unidentified seeds (O horizon). Abundant boulders are present. No cultural remains were observed.

Layer II is a dark yellowish brown, very fine silty loam. It contains abundant fine roots and rootlets and one large *kiawe* root. It also contains abundant boulders and decomposing basalt. No cultural remains were evident. The western 0.25 m of TU1 exhibited a more abundant proportion of sand.

Discussion

The absence of any cultural remains in or around this facing suggests an agricultural function, perhaps for sweet potato cultivation. One other possibility may be that it was used as a slope retention structure in association with the nearby drainage.

Fig. 10. SITE 50-Ma-C1-14, ROCK FACING. View to East.
BM Neg. No. Ma(a)340-13.

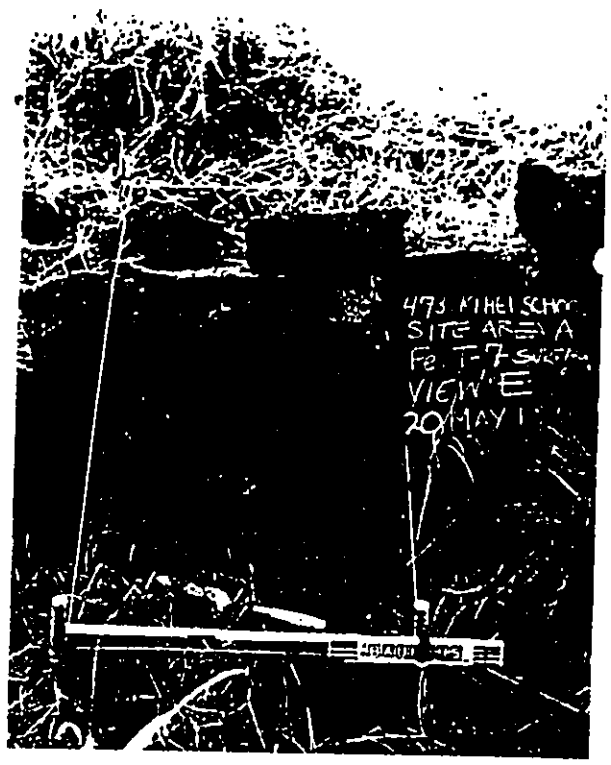
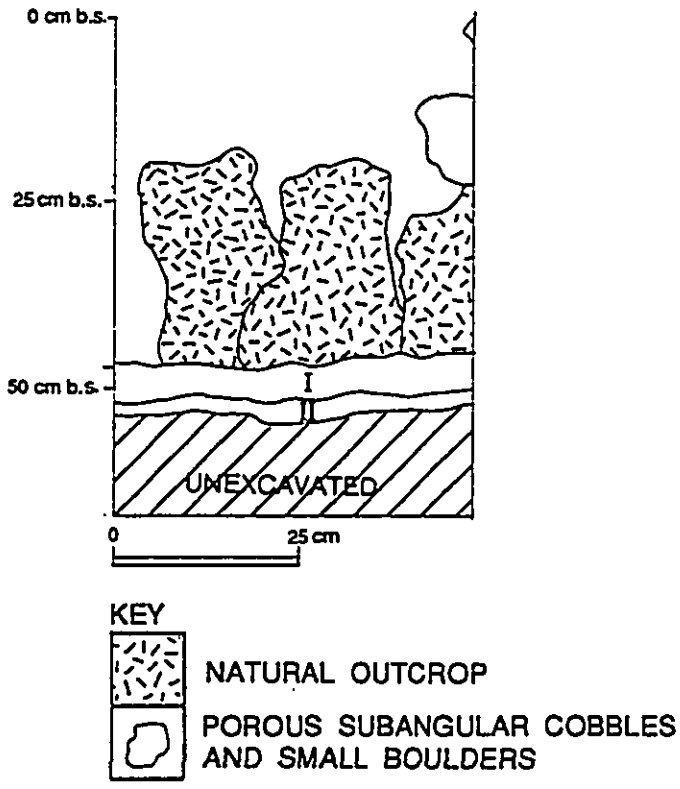


Fig. 11. SITE 50-Ma-C1-14, TEST UNIT 1. View to East.
BM Neg. No. Ma(a)341-16.



Layer 1: Dark yellowish brown, very fine, silty sandy loam; abundant fine grass roots and sparse unidentified seeds (O horizon) and abundant boulders. No cultural evidence present.

Layer II: Dark yellowish brown, very fine silty loam; abundant fine roots and rootlets, one large *kiawe* root and abundant boulders and decomposing basalt. No cultural evidence present.

Fig. 12. PROFILE, SITE 50-Ma-C1-14, TEST UNIT 1, NON-TERRACED ROCK FACING.

SITE 50-Ma-C1-15 (STATE SITE 50-50-14-2844)

Site C1-15 is a historical wooden structure located in the southwest corner of the project area about 250 m south of Site C1-8 (Fig. 13). The structure is constructed of milled lumber fastened with modern wire nails. The surrounding area is replete with scattered Historical Period artifacts such as cooking utensils, cook stove parts, bottles, ceramics, canned food and tobacco tins, a hoe head, lumber, and barbed wire. The building is in a collapsed condition and shows signs of recent use by transients for shelter.

The building was constructed with a board and batten technique, the boards measuring 1 by 12 inch and the battens 3 by 3/8 inch. The boards and battens were fastened over stud framing.

The wall and roof framing are conventional, with 2 by 4-inch stud wall construction and 2 by 6-inch roof rafters. Roofing material was wood shingles nailed over 1 by 4-inch roof battens. Angular basalt boulders appear to have served as the foundation for the building; however, the rocks that were present were not continuous along the perimeter of the structure. The building evidently had a main doorway (c. 6 ft. 8 in. by 2 ft. 6 in.) in the north wall and a larger door on the east wall. Evaluation of the outline of the collapsed structure leads to the conclusion that the building originally measured c. 3.0 m wide by 5.0 m long and 3.5 m high at the ridge.

An intact barbed wire fence is located c. 18.0 m to the west from the structure, and an enclosed coral or holding pen is found to the southwest. Fifteen meters to the southeast lies a scatter of Historical Period artifacts that appears to represent the location of a refuse dump associated with the occupation of the building.

Discussion

The historical building appears to have been constructed between c. 1920 and 1940, based upon nail and lumber types. The primary fastener used for framing and board-siding application was a galvanized 8-or 10-penny machine-made wire nail. A 1921 Honolulu Iron Works Company catalogue (Illustrated Catalogue B) is the first incident found where galvanized nails were offered in Hawaii. Other non-galvanized 5-or 6-penny nails were used to hold the siding battens and to fix the wood shingles on the roof. These nails could date to any time after c. 1890, when they first were available in Hawaii.

Fig. 13. SITE 50-Ma-C1-15, HISTORICAL BUILDING. View to Southwest. BM Neg. No. Ma(a)340-25.

The framing lumber used in the construction of the building also provides a rough date limit, in that the 2 by 4-inch studs and 2 by 6-inch rafters are actual size (i.e., in cross section, the lumber is a full 2 inches broad and 4 inches deep). Lumber stopped being manufactured to actual size c. 1940; from then on, lumber was cut to nominal size. Therefore, a 2 by 4 stud made after that time would measure 1-1/2 by 3-1/2 inch. The reduction in size from actual size to nominal size is not a uniform 1/2 inch for all lumber sizes, but varies as the cross-sectional dimensions increase (Parker 1967:23).

Surface artifacts were also examined for clues to age. Bottles proved to be the main diagnostic materials in establishing the chronology of the site. The manufacture date ranges of the bottles examined ranged from 1896 to immediately after 1933.

The observations concerning the building's construction and the associated surface artifacts strongly suggest that the structure was constructed c. 1920 and was probably formally used through the 1940s. Because of the adjacent barbed-wire fences and the ranch associations of Site C1-8, it seems logical to assign the function of the site to some ranching activity. The evidence to be very much more specific does not exist.

CONCLUSIONS

The Historical Period sites (C1-8 and C1-15) appear to have functions associated with cattle ranching in the Kihei-Makena area. A more specific functional interpretation could be developed through additional research; however, the relatively young ages of these sites (c. 1900 to 1920) seem to reduce the necessity to develop further the already well-documented history of this period in Hawaii.

Site C1-10 was previously tested by Hammatt and Shideler (1990), and no charcoal deposit was found, limiting the value of this site as a chronological tool. The remaining pre-historical sites (C1-9 and C1-11 through -14) gave no evidence of artifacts, midden, or other cultural material remains. However, the long history of sweet potato planting in this area seriously leads one to classify the sites as either sweet potato (*'uala*) cultivation mounds (*pu'e*) or other field clearing mounds. Handy and Handy in their *Native Planters in Old Hawaii - Their Life Lore, and Environment* say:

> The ancient Hawaiians planted potatoes in mounds (pu'e). Where soil is powdery and dry, as in 'Ulupalakua and Makena on Maui, the earth is heaped carelessly into low mounds spaced with no particular precision or care. The slips are planted two or three in a mound, being placed vertically in holes made with the digging stick...Where potatoes are planted in crumbling lava combined with humus, as on eastern Maui and in Kona, Hawaii...The crumbling porous lava gives ample aeration with out much mounding [1972].

It seems that these mounds are characteristic of the type chronicled by Handy and Handy and that they were built for the traditional Hawaiian cultivation of *'uala*.

RECOMMENDATIONS

A Phase I Survey, such as the current project, normally provides data to evaluate site significance and determine the appropriate final disposition of sites through detailed mapping and limited test excavations. In the sites studied, because of the lack of midden or artifacts, the potential for new or unique data is insignificant. Since the significance of the sites have been realized, the archaeological procedures performed to date can be considered adequate data recovery. Thus, further intensive data recovery is not recommended. An archaeological monitor is recommended to be present during any construction-related clearing and grading activities to ensure the protection of any sites located near impact areas and to examine potential archaeological features that may be exposed during such ground-altering activities.

ARCHAEOLOGICAL SITE SUMMARY

BPBM Site (50-Ma-)	State Site (50-50-14-)	Description	Condition	Recommendation
C1-8	2837	Historical Platform	Good	No Further Work
C1-9	2838	L-Shape	Good	No Further Work
C1-10	2839	Shrine	Fair	Preservation
C1-11	2840	Mound	Good	No Further Work
C1-12	2841	Mound	Good	No Further Work
C1-13	2842	Mound Group	Good	No Further Work
C1-14	2843	Rock Facing	Good	No Further Work
C1-15	2844	Historical Building	Poor	No Further Work

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