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Administrative Affairs

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January 5, 2009

Ms. Katherine Kealoha, Director  
Office of Environmental Quality Control  
235 South Beretania Street, Suite 702  
Honolulu, HI 96813

Dear Ms. Kealoha,

**Subject: Finding of No Significant Impact (FONSI) to the Environment for Maui Community College Science Building, Kahului, Maui, Hawai'i , TMK: (2) 3-8-007:040 (portion)**

The University of Hawai'i has reviewed the comments received during the 30-day public review period draft environmental assessment (EA) and the applicant's responses for the subject draft EA. Accordingly, we have determined that the proposed action will not have a significant environmental effect and have issued a FONSI determination. Please publish notice of availability for this project in the next scheduled publication of the *Environmental Notice*.

We have enclosed a completed OEQC Publication Form, one copy of the document in pdf format, two copies of the Final EA, and the project summary on CD-ROM. Please contact our EA contractor, Gail Renard of Helber Hastert & Fee, Planners (808-545-2055) if you have any questions.

Sincerely,

Michael T. Unebasami  
Associate Vice President for Administrative Affairs

Enclosures

- c Ms. Gail Renard  
Chancellor Clyde Sakamoto  
Vice Chancellor David Tamanaha  
Director Brian Kashiwaeda  
Mr. Maynard Young

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An Equal Opportunity/Affirmative Action Institution

**University of Hawai'i**

**Maui Community College Science Building**

**Final Environmental Assessment**

**TMK (2) 3-8-007:040 (por.)  
Wailuku District, Maui, Hawai'i**

**January 2009**

Prepared for: Maui Community College  
Prepared by: Helber Hastert & Fee, Planners

**University of Hawai'i**

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**ACRONYMS AND ABBREVIATIONS**

AIS	archaeological inventory survey
BMP	best management practice
DLNR	Department of Land and Natural Resources
DOH	Department of Health
DWS	Department of Water Supply
EIS	environmental impact statement
FONSI	Finding of No Significant Impact
fps	feet per second
FTE	full-time equivalent
gpd	gallons per day
gpm	gallons per minute
HRS	Hawaii Revised Statutes
kV	kilovolt(s)
kVA	kilovolt ampere(s)
kW	kilowatt(s)
kWh	kilowatt hour(s)
LCA	Land Commission Award(s)
LRDP	Long Range Development Plan
LEED	Leadership in Energy & Environmental Design
LOS	Level of Service
MCC	Maui Community College
mgd	million gallons per day
NPDES	National Pollutant Discharge Elimination System
PM <sub>2.5</sub>	particulate matter 2.5 microns or less

PM <sub>10</sub>	particulate matter 10 microns or less
psi	pounds per square inch
PV	photovoltaic
SHPD	State Historic Preservation Division
SPS	Sewage Pump Station
UH	University of Hawai'i
VOC	volatile organic compound
WWRF	Wastewater Reclamation Facility

## PREFACE

The Draft Environmental Assessment (EA) for the Maui Community College Science Building was published in March 2008. Subsequent to its publication, the scope of the proposed action was reduced due to financial constraints. Although the science building was previously proposed as an 40,000-square foot, two-story building with a height of 54 feet, it has been reduced in size to a 33,000-square foot, one-story building, with a height of 45 feet and 4 inches. Accordingly, its overall environmental impacts are now smaller in scale than previously reported in the Draft EA and updated information is reported in this Final EA. Figures 5, 6 and 8 have been revised to reflect the current building design.

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## Chapter 1: INTRODUCTION

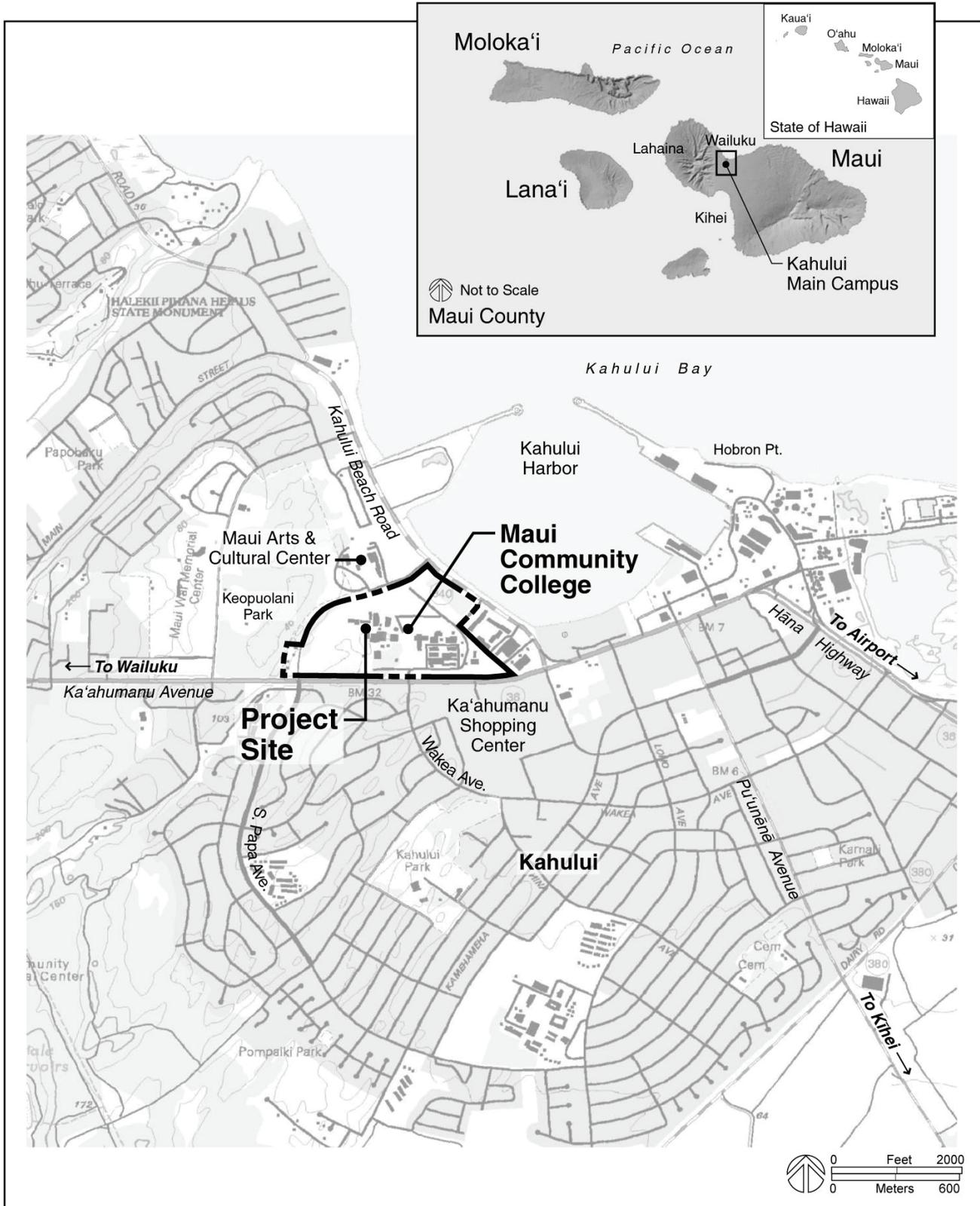
### 1.1 Background

Maui Community College (MCC) is one of seven community colleges within the University of Hawai‘i (UH) system and is the only institution of higher education in Maui County. The main MCC campus is located in Kahului on the island of Maui, with outreach centers located in Hana, Lahaina, and Kihei on Maui and on the islands of Moloka‘i and Lana‘i (Figure 1). MCC provides liberal arts and vocational-technical two-year degree and certificate programs. MCC has a four-year Baccalaureate program in Applied Business and Information Technology and four-year and graduate degree programs are also available at MCC’s Kahului campus via the UH Center. Its current student enrollment is about 3,000 students with a full-time equivalent (FTE) of about 1,664 students. Assuming an optimistic 5% per year increase in FTE student enrollment over the next few years, MCC’s enrollment could increase to 1,926 FTE in 2010, the earliest the new building would be completed.

### 1.2 Proposing Agency and Action

MCC proposes to construct a new science building on an approximately 3-acre site at its Kahului campus. The proposed Science Building is planned as a one-story, reinforced concrete and steel structure of approximately 33,000 square feet (ft<sup>2</sup>) (excluding roof deck and mechanical room). It is intended to be a demonstration project for the UH system, showcasing its commitment to energy savings and sustainable design, including incorporating renewable energy technologies into the project.

This EA was prepared in compliance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and the environmental impact statement (EIS) regulations promulgated by Chapter 200 of Title 11, Department of Health (DOH). Since the proposed action involves the use of public lands and funds, it is subject to the State’s environmental review process. This document was prepared to determine whether the proposed action may have a significant impact on the environment and whether an EIS is required.



Maui Community College Science Building  
**Figure 1: Location Map**  
Environmental Assessment

### 1.3 Project Summary

*Project Name:* Maui Community College Science Building

*Applicant:* University of Hawai‘i, Maui Community College

*EA Preparer:* Helber Hastert & Fee, Planners  
733 Bishop Street, Suite 2590  
Honolulu, HI 96813  
Phone: (808) 545-2055 Fax: (808) 545-2050

*Approving Agency:* University of Hawai‘i, Vice President for Community Colleges

*Proposed Action:* Construction of a new one-story, 33,000-ft<sup>2</sup> science building to provide modern laboratory, classroom, lecture hall, and faculty office space to replace an aging facility.

*Chapter 343, Hawai‘i Revised Statutes “Trigger:”*

Use of State funds/lands

*Project Location:* Maui Community College, Kahului Campus  
Island of Maui, State of Hawai‘i  
310 Ka‘ahumanu Avenue,  
Kahului, Hawai‘i 96732

*Tax Map Key:* (2) 3-8-007:040 (por.)

*Landowner:* State of Hawai‘i

*Existing Land Uses:* vacant, unpaved overflow parking for MCC, former volleyball court

*State Land Use District:* Urban

*Maui County Zoning:* R-2 Residential

*Community Plan:* Public/Quasi-Public

## 1.4 Required Permits and Approvals

<b>Agency</b>	<b>Permit</b>
<u>State of Hawai‘i</u>	
Department of Health	National Pollutant Discharge Elimination System permit
Department of Health	Air Quality Permit ( <i>for emergency generator</i> )
University of Hawai‘i	Finding of No Significant Impact
<u>County of Maui</u>	
Planning Commission	Special Management Area (SMA) Use Permit Approval
Board of Variances and Appeals	Height Variance Approval
Department of Public Works	Grubbing and Grading Permit & Building Permit
Department of Planning	Flood Development Permit

## 1.5 Determination

Based on the information gathered during preparation of this EA, it is concluded that the direct, indirect, and cumulative effects of the proposed action will not have a significant adverse effect on the environment; therefore, an EIS will not be required and that a Finding of No Significant Impact (FONSI) may be issued by the approving agency. In accordance with Chapter 343, HRS and Section 11-200, Hawai‘i Administrative Rules, the University of Hawai‘i determined that a FONSI be issued for the proposed action. The rationale for this determination is described in Chapter 8.

## Chapter 2: PROPOSED ACTION

### 2.1 Project Location

The proposed action is located within the MCC main campus in Kahului on the island of Maui on a portion of Tax Map parcel 3-8-07:040 (Figure 2). The Kahului campus is centrally located in the heart of Kahului within the Central Maui urban area of Kahului/Wailuku (Figure 1). The campus is bordered on the south by Ka‘ahumanu Avenue, to the north and west by Wahine Pi‘o Avenue, and to the northeast by Kahului Beach Road and the Harbor Lights condominium complex (see Figure 3, Campus Map). An MCC student housing complex is located at the northwest corner of the intersection of Wahine Pi‘o Avenue with Ka‘ahumanu Avenue. Other surrounding land uses include Keopuolani Park and Maui Arts and Cultural Center to the northwest, Kahului Harbor to the northeast, Queen Ka‘ahumanu (Shopping) Center and single family residential uses to the south, across Ka‘ahumanu Avenue. Figure 4 shows an aerial photograph of the MCC campus as well as photographs of the project site.

### 2.2 Project Description

#### 2.2.1 General

The proposed action is to construct a new science building at MCC to provide modern laboratory and classroom spaces for the Science Division. The new science building would be located on the west side of the existing Kahului campus adjacent to the existing Ceramics/Fine Arts building (Building 231) over a gravel overflow parking lot and unused volleyball court (see Figure 3 for location). The Ho‘oulu agricultural complex buildings (Buildings 239A and 239B) are located immediately north of the project area, and the tennis courts are located immediately to the south. An open, grassed field lies west and south of the project area.

The new building will primarily provide laboratory space for the various disciplines within MCC’s Science Division. The Science Division program covers nine discipline areas: Astronomy, Biochemistry, Biology, Botany, Chemistry, Microbiology, Oceanography, Physics, and Zoology. The Science Division also includes space for the UH Marine Options Program.

The proposed action also includes construction of a 500-ft<sup>2</sup> telescope building, housing a telescope, in the southwest corner of the project area (see Figure 5 for site plan). A 61-stall paved parking lot will be constructed west of the new science building, with access from the existing service road leading to Wahine Pi‘o Avenue. The project also includes a separate chiller building, with an area for possible expansion, between the parking lot and the new science building. The existing pedestrian mall will be extended west to serve the new building.

The new facilities will, at a minimum, meet Leadership in Energy & Environmental Design (LEED) Silver Certification criteria.<sup>1</sup> The project’s LEED scorecard is attached in Appendix C.

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<sup>1</sup> The LEED Green Building Rating System is a performance-oriented system to rate new and existing commercial, institutional and residential buildings. The rating system for new construction is organized into the following categories: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation & Design Process. Credits are earned for meeting criteria within each of the categories, with different levels of green building certification

Total project cost is estimated at about \$25 million, and will be funded by the State of Hawai‘i’s capital improvement project funds. Construction will start in the Spring of 2009 or later.

The existing science building (Building 221) will be retained after construction of the new science building. The first floor will be used as multi-purpose lecture space and the three second-floor labs will be converted for use by the Allied Health program (i.e., nursing and dental hygiene).

This project is not expected to directly increase full-time equivalent (FTE) enrollment; it is needed to remedy an existing inadequacy in science instruction facilities. However, two additional science faculty positions have been approved by the State Legislature (unrelated to this project) beginning in the Fall semester of 2008.

### 2.2.2 Science Building

The new science building is planned as a one-story, reinforced concrete and steel structure of approximately 33,000 ft<sup>2</sup> (excluding roof deck and mechanical room). The building will consist of individual laboratories, central lab and storage, community research lab, student library resource center, faculty and staff offices, large lecture hall, general classroom, and miscellaneous support spaces.

Individual laboratories will be arranged around and have direct access to a central laboratory. The laboratories will be constructed on a modular grid to provide smooth integration with the building’s structural and mechanical systems. The modular grid system will also allow for flexibility in spatial layout and allocation in the future, as new educational and technological requirement that affect undergraduate science building design arise.

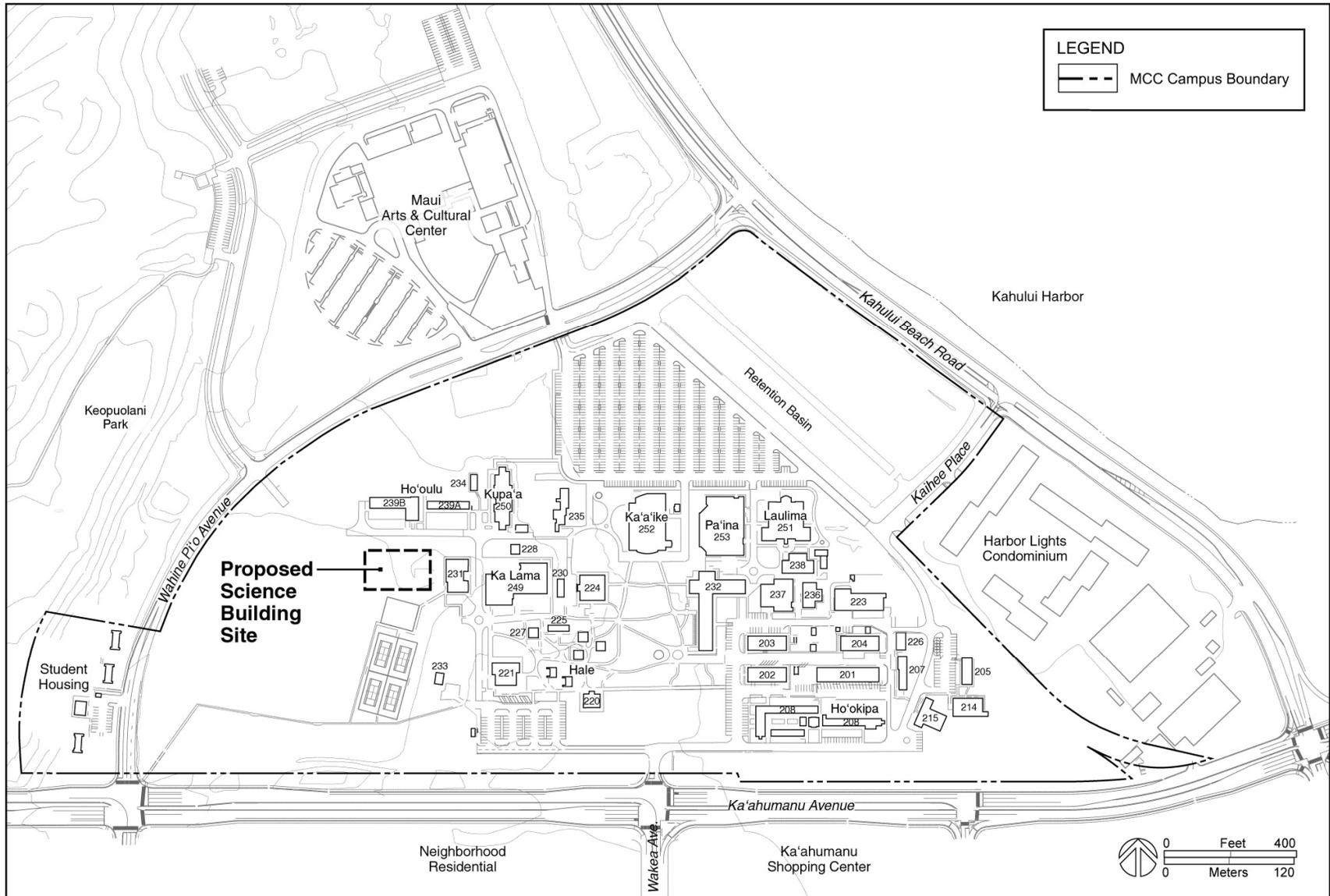
A primary feature of the building design and architecture will be the incorporation of sustainable design elements and incorporation of technologies promoting sustainability. The facility itself is planned as an educational tool demonstrating energy efficiency. The facility will incorporate photovoltaic (PV) panels, and may include wind turbines to reduce demand for offsite electrical power generation and transmission.

The overall appearance of the building will reflect a “state of the art” science education facility, which incorporates the latest technologies, and even emerging technologies, into the project’s design, systems, materials, equipment and other building related items, including energy efficient technologies. The building will incorporate design features and construction materials in keeping with the facilities most recently constructed at the campus (e.g., Ka Lama, Ka‘a‘ike, Pa‘ina). One exception will be the roof form, where approximately 70% of the roof area will face south to increase its solar exposure for the planned PV system. In order to achieve this, the roof will have two different roof slopes and appear offset, with the south facing side having a

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awarded based on total credits earned (U.S. Green Building Council 2006). There are four levels of LEED certification (Certified, Silver, Gold, and Platinum); a building requires 33-38 points (out of a total of 69) to be awarded Silver Certification.





Maui Community College Science Building  
**Figure 3: MCC Campus Map**  
Environmental Assessment



Aerial Photograph

Feb. 2003



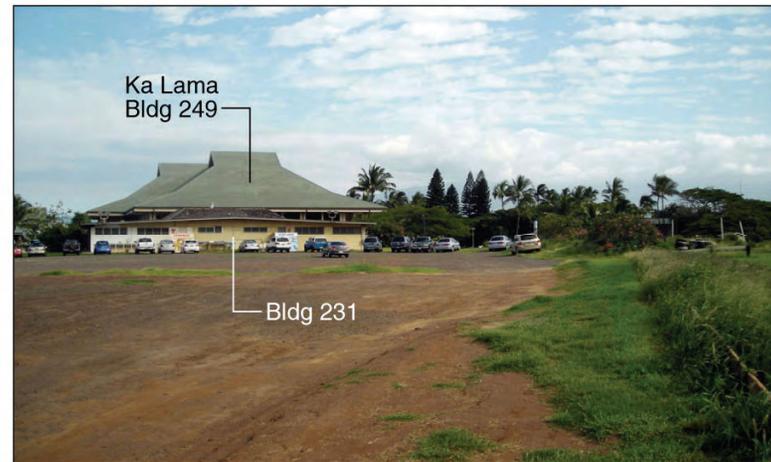
Project Area from pedestrian mall (looking west)

Jan. 2008



Project Area from south

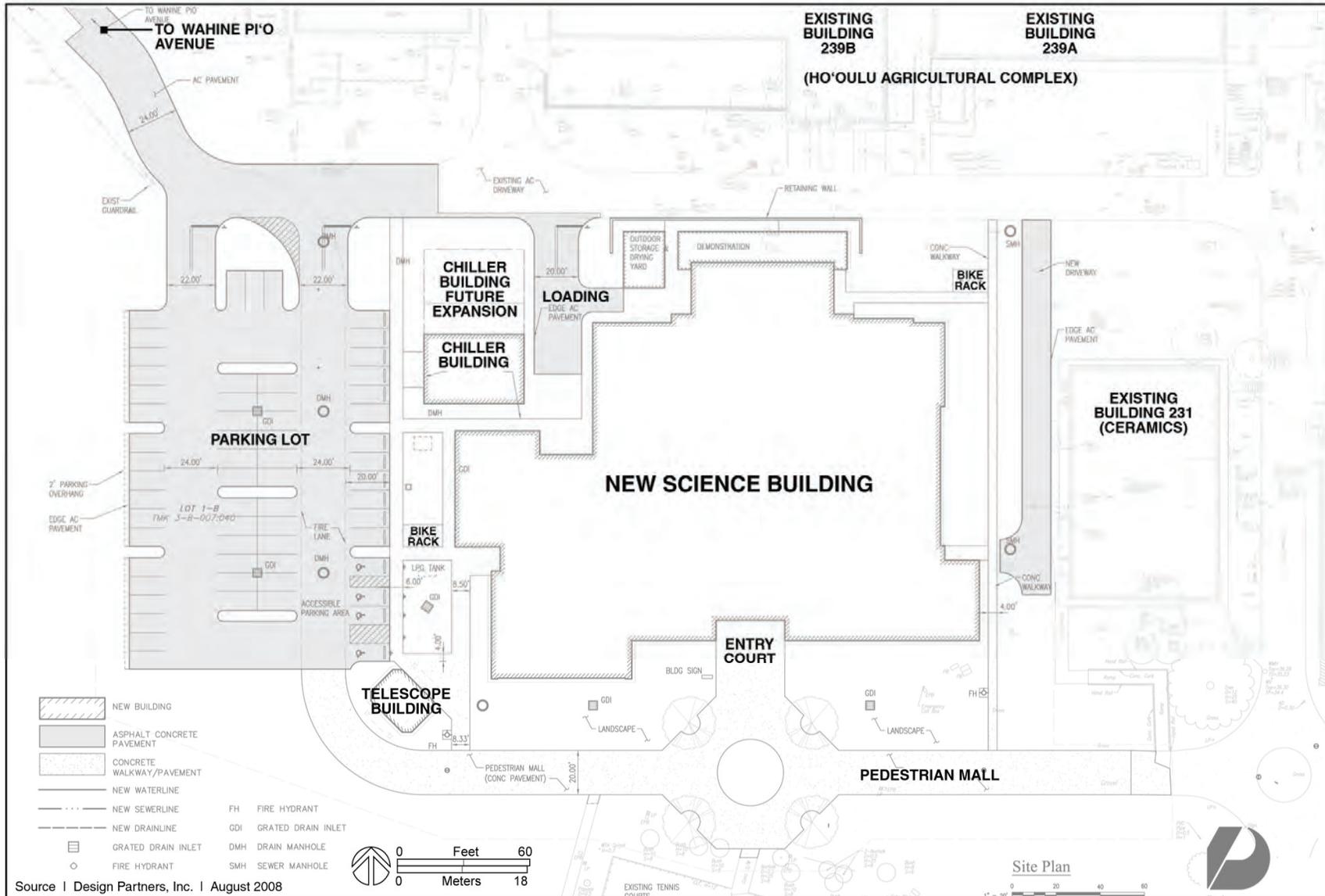
Jan. 2008



Project Area from west

Jan. 2008

Maui Community College Science Building  
**Figure 4: Site Photos**  
Environmental Assessment



Maui Community College Science Building  
**Figure 5: Science Building Site Plan**  
Environmental Assessment



Maui Community College Science Building  
**Figure 6: Computer Rendering**  
Environmental Assessment

shallower slope (see Figure 6 for a preliminary 3-dimensional computer rendering). The PV system would consist of rack-mounted PV panels fastened to the roof and PV panels incorporated into a south-facing wall.

Wind turbines may also be incorporated into the final facility, mounted on the roof of the building. Figure 6 illustrates potentially how they may appear. Each unit would be approximately 10 feet high. Levels of electrical power output would correspond to wind speed, with higher wind speeds achieving greater power output. Models under consideration generate very little noise and are safe to operate in wind speeds over 100 miles per hour.

Other sustainable design features include: high performance day lighting in primary spaces such as labs, classrooms, and offices; waterless urinals, low-flow showers, sinks and water closets; motion sensor lighting in occupied spaces; automated light dimming system to adjust fluorescent lighting when day lighting contribution is high; and skylights in selected interior spaces—including the two-story entry atrium—that will reduce artificial lighting requirements. Building plans specify “Low-E” (i.e., low emittance) windows, which reduce heat transfer from outside the building. An additional energy-efficient feature is an approximately 3,000-ft<sup>2</sup> “green roof” on the north side of the building. This roof deck will be covered with vegetation (e.g., sod requiring shallow soils) and diminish heat gain to the interior spaces, reducing the need for artificial cooling.

The new science building will be designed to reduce maintenance requirements. For example, the main entry will face away from the prevailing salt- and moisture-laden winds from the northeast. The building will minimize metal work and steel equipment on the ocean (northeast) side of the building to reduce premature rusting and deterioration.

Other sustainable or energy efficient features include:

- provision of bicycle racks and showers to encourage transportation alternatives to private motor vehicles
- development of a storm water management plan that minimizes impervious cover, promotes infiltration, and captures and removes pollutants to meet LEED requirements
- use of non-potable water for landscape irrigation
- inclusion of recycling stations for the storage and collection of recyclable materials
- diversion of at least 50% of construction and demolition waste from the municipal landfill
- use of low-emitting adhesives and sealants throughout the project to reduce indoor air contaminants
- use of paints and coatings meeting Green Seal’s<sup>2</sup> chemical and volatile organic compound (VOC) standards

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<sup>2</sup> Green Seal is a nonprofit organization that provides science-based environmental certification standards for many construction products. The Green Seal organization sets much more stringent standards than the U.S. Environmental Protection Agency for acceptable VOC levels in paint.

### 2.2.3 Telescope Building

This facility will be a one-story, permanent freestanding structure of approximately 500 ft<sup>2</sup>. Depending on its eventual roof form, the structure's overall height could be up to 15 ft. It will house several pier-mounted telescopes supplemented by computers, video equipment and miscellaneous furnishings for education and research purposes. An operable roof will serve to open the telescopes to the night sky, facing southwest—the optimal orientation for star-viewing. An outdoor observing venue of approximately 300 to 400 ft<sup>2</sup> is also planned in the immediate area to hold classes that do not fit within the structure. This venue would consist of a combination open paved and grassed area surrounding a telescope pier.

### 2.2.4 Utilities and Infrastructure

**Electrical.** Energy efficient high pressure sodium lights will be used for exterior lighting, which will be full cut-off type to minimize light pollution. Exterior lighting will be designed to meet lighting levels recommended by the Illuminating Engineering Society of North America. As required by State law, the interior and exterior lighting power densities have been designed according to the Hawaii Model Energy Code, which is almost identical to ASHRAE 90.1. Emergency power to the building will be provided by new diesel engine driven emergency generator with an approximate capacity of 100 kilowatts (kW). Generators powered by other fuels were considered, but diesel fuel was deemed the most reliably available during an extended power outage.

The new facilities' electrical demand is estimated on the order of approximately 450 kilovolt amperes (kVA) or approximately 7,500 kW hours (kWh). Electrical power will be derived from the 12.47 kilovolt (kV) primary distribution system on the MCC campus, which receives two primary circuits from Maui Electric Company. A pad mounted transformer will be provided to step down the power to 480Y/277V. The roof-mounted PV panel system will have the capacity of producing on the order of 550 kWh per day, or approximately 13% of the building's electrical demand.

**Mechanical and Heating, Ventilation, & Air Conditioning.** The new central plant will consist of two 200-ton high efficiency water cooled chillers. A new chiller building will be located on the west side of the new science building and contain chillers and pumps, storage tanks, heat exchangers, and cooling towers. The chiller building may be expanded if required in the future. A separate mechanical room within the science building will contain the primary hot water heaters, lab air compressors and lab vacuum pumps. An electrical and emergency generator room will also be located in the science building. Underground piping and electrical conduits will connect the central plant to the new building.

Discharge stacks for the emergency generators and lab exhaust stacks will be located on the leeward side of the roof to prevent recirculation of air into the outside air intakes. General exhaust fans, dedicated negative pressure isolation room fans, and laboratory hood exhaust fans will also be located on the roof.

The mechanical systems are designed to be energy efficient and comply with the State of Hawai‘i Energy Code. In addition, the systems are designed to comply with recent passage of State of Hawai‘i Act 96 (passed in 2006) that requires State agencies to design and construct buildings to meet the requirements for LEED Silver certification. The building design includes the following features to maximize energy efficiency and sustainability:

- energy efficient centrifugal chiller
- variable speed chilled water pumps, cooling tower fan and air handling unit drives
- premium efficiency motors
- demand-based air and chilled water temperature adjustments
- variable flow laboratory fume hoods (to reduce energy use)

**Potable Water.** Domestic water demand (excluding irrigation) for the project is estimated at 21,900 gallons per day (gpd), with a peak flow of 113 gallons per minute (gpm). An estimated 1,500 gpm will be required for fire protection. Water for domestic and fire protection use will be provided by the existing MCC water system. New water lines serving the project will be sized to meet the following requirements:

- Maximum Daily Water Demand + fire flow with a residual pressure of 20 pounds per square inch (psi) at the critical fire hydrant.
- Peak Hour Water Demand with a minimum residual pressure of 40 psi.
- Maximum flow velocities:
  - Distribution mains—without fire flow—6 feet per second (fps);
  - Distribution mains—with fire flow @ maximum day domestic flow—10 fps;
  - Transmission mains—without water services or fire flow—20 fps; and
  - Fire lines—13 fps
  - Maximum static or pumping pressure, whichever is greater, shall not exceed 125 psi

**Wastewater.** The new facility will generate wastewater flows of approximately 14,900 gpd. Wastewater generated by the project will be discharged into the existing MCC sanitary system via a new wastewater lateral that will connect the development to the existing line on the northeast corner of the project area. The wastewater will ultimately be carried by the County’s sewer line to the Wailuku-Kahului Wastewater Reclamation Facility (WWRF) for treatment and discharge. Non-contact cooling water and condensate will be discharged into dry wells on the site and not into the wastewater system.

**Storm Drainage.** The proposed storm drainage system will include grated drain inlets, drain manholes, underground piping, and an underground storm water quality system. Storm water flows from the project area were estimated at 10.2 cubic feet per second (cfs) (M&E Pacific 2008). Of this amount approximately 3.3 cfs will be allowed to flow offsite and percolate into the ground. The remaining 6.9 cfs will be piped to the existing drainage system, which discharges flows into a retention basin located along the northeastern end of the campus between the large parking lot and Kahului Beach Road (Figure 3). An underground retention system will be included as a long term best management practice (BMP). The underground retention system

will meet LEED requirements in capturing and removing pollutants, such as total suspended sediments and oils, from storm water runoff.

### 2.2.5 Roadways, Parking and Circulation

The main vehicular entrance to MCC's Kahului Campus is from Ka'ahumanu Avenue at its intersection with Wakea Avenue. Vehicular access is also available from two locations along Wahine Pi'o Avenue: one entrance, across the Maui Arts and Cultural Center driveway, provides access to a large parking lot; the second is an unpaved service road opposite the intersection with the Keopuolani Park access road.

The new science building will be constructed partially over an existing unpaved overflow parking lot<sup>3</sup> south of Buildings 239A and 239B. As part of this action, a new parking lot will be constructed adjacent to the new science building over vacant land (see Figure 5). The new parking area will be paved and striped for 61 vehicles, including 4 handicap accessible stalls, and include shade trees to meet Maui County requirements. This parking area will be accessible from Wahine Pi'o Avenue via an existing service road that will be improved (i.e., paved). This service road will provide access for loading and unloading supplies and equipment. A new fire lane along the west side of the building will provide access to the mechanical and electrical rooms, located in the western portion of the building.

As previously described, the science building's main entry will face south. The existing pedestrian mall through the campus will be extended to serve the new building. A secondary building entrance would be located along its north side. Long-range plans for MCC indicate the eventual extension of the pedestrian mall west to Wahine Pi'o Avenue.

### 2.2.6 Landscape Plan

The proposed landscape improvements are intended to provide an aesthetically pleasing exterior environment that compliments the new Science Building and integrates the facility with the rest of the Maui Community College campus, consistent with the landscape design guidelines contained in the MCC Long Range Development Plan (LRDP) (MCC 2006). The existing pedestrian mall will be extended and serve as a connection to the other buildings and facilities. A courtyard at the main entrance features plantings of accent trees, shrubs and ground covers. An outdoor seating area is proposed near the Telescope Building at the southwest area of site. Shrub and ground cover plantings are proposed at the base of the new buildings to serve as a transition from the building to the site. Accent trees and palms are also proposed to supplement the exterior environment.

Shade trees are proposed at the new parking area in conformance to County of Maui landscape requirements and LRDP guidance. Emergency vehicle access is proposed to be constructed using reinforced grassing.

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<sup>3</sup> Because it is unpaved and for overflow purposes, the parking provided by this overflow lot is not included in MCC's official parking assets.

Plants will be selected for their site-adaptive and low maintenance requirements. Native Hawaiian or Polynesian-Introduced plant species are to be used throughout the project as much as possible. For example, native plants that may be used include: *'ilima* (*Sida fallax*), *lo'ulu* (*Pritchardia affinis*), *naupaka* (*Scaevola sericea*), *pohinahina* (*Vitex rotundifolia*), *naio papa* (*Myoporum sandwicense* st. *johnii*), *kou* (*Cordia subcordata*), *'ohai papa* (*Sesbania tomentosa*), and *milo* (*Thespesia populnea*).

Irrigation will be connected to MCC's existing non-potable water system, which is served by an on-site brackish water well.

Exterior pathway lighting will be consistent with existing pathway lighting near the project site (e.g., pole-mounted shoebox lights). New roadway lights will be consistent with existing lights on the roadway west of the project site. No exterior accent lights are proposed. The project will not include any uplighting.

### 2.3 Purpose and Need for Proposed Action

The purpose for the action is to improve the quality of education MCC can provide, along with improving health and safety for its Science Division faculty and students. The action is needed because the existing science building (Building 221) was constructed in 1970 and does not meet current standards for science instruction, laboratory space, and chemical storage. Because laboratories in the existing science building are not dedicated to one type of science instruction, chemicals used by the different classes must constantly be transported in and out of the shared spaces. The new labs will be specialized and dedicated to a single class, and provide for more security and control of hazardous materials/waste storage.

The number of classes currently offered by the Science Division is currently limited by facilities. The new building will also improve MCC's ability to schedule classes, thereby improving services and access to its programs. MCC has identified the science building as a priority near-term project, and the proposed project site allows it to be constructed without impacting existing facilities in a vacant area that is still close to existing facilities.

## Chapter 3: AFFECTED ENVIRONMENT

### 3.1 Physical Environment

#### 3.1.1 Soils and Topography

The MCC Kahului campus is located in the relatively flat central isthmus between the West Maui Mountains and Haleakala. Soils underlying the majority of the campus, including the project area, belong to the Pulehu-Ewa-Jaucas association. These soils are deep, nearly level to moderately sloping, well-drained and excessively drained soils that have a moderately fine textured to coarse-textured subsoil or underlying material on alluvial fans and in basins (U.S. Department of Agriculture 1972). The soil type at the project area is Puuone Series, Puuone sand, 7 to 30 percent slopes (PZUE). This soil occurs on sand hills near the ocean. Typically, the surface layer of these soils is calcareous sand, underlain by cemented sand.

The terrain is slightly sloped with grades ranging from 0.5 percent at the eastern part of the campus to 2 percent at the western end, except for grassed knolls scattered throughout the campus. The high point is along the west side of the campus along Ka‘ahumanu Avenue at approximately 48 feet in elevation above mean sea level, sloping down toward the east end where elevation averages approximately 10 feet. A four-foot deep retention basin is located along the northeastern end of the campus between the large parking lot and Kahului Beach Road (Figure 3). West of the campus, across Wahine Pi‘o Avenue are steep slopes of the “Sand Hills” dune area.

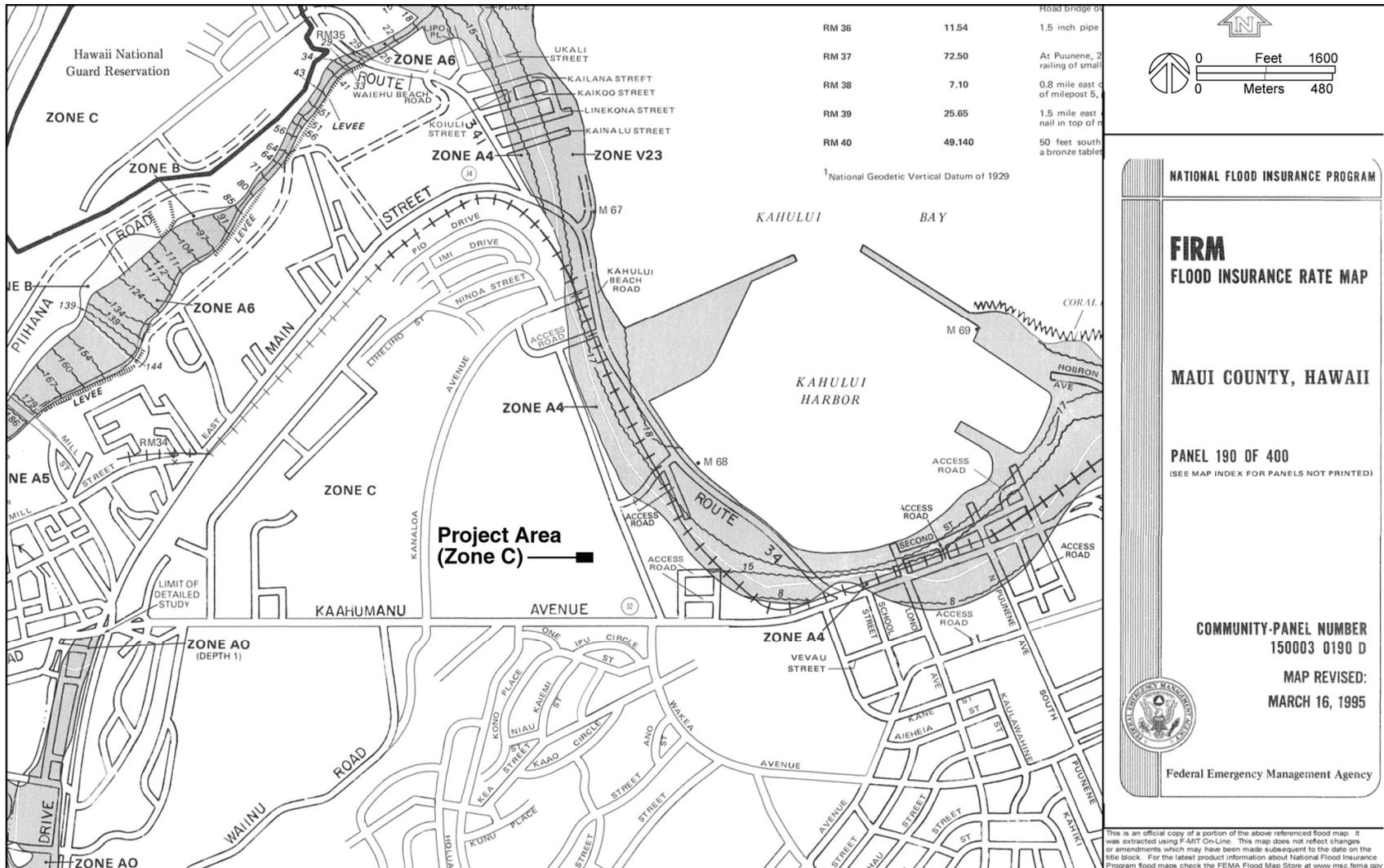
The project site is relatively level, with ground elevations ranging from +40 to +42 feet. A geotechnical investigation was performed for the project site in February 2008 to provide recommendations for the project’s foundation design (Hirata & Associates, Inc. 2008). Drilling and sampling of five exploratory borings were conducted to depths ranging from approximately 6.5 to 20.5 feet. Neither groundwater nor seepage water was encountered in the geotechnical exploratory borings in the depths drilled.

#### 3.1.2 Surface and Ground Water

There are no streams, wetlands or other surface waters on or in the vicinity of the project area. The project area is approximately 1,700 feet inland from the Kahului Harbor shoreline. The project site is not located over a source of drinking water (Hawai‘i Department of Health 2008).

#### 3.1.3 Natural Hazards

According to Flood Insurance Rate Map Community Panel Number 150003 0190 D (Federal Emergency Management Agency 1995), the project area is located in Zone C, defined as “Areas of minimal flooding” (see Figure 7). It is not considered within the 100-year flood zone or area of coastal flooding. The project site is located outside tsunami evacuation areas shown on Maui County maps (Maui County Civil Defense Agency 2008), nor in an erosion-prone area or on geologically hazardous land.



Maui Community College Science Building  
**Figure 7: Flood Insurance Rate Map**  
Environmental Assessment

#### 3.1.4 Climate and Air Quality

Characteristic of Hawai'i's climate, Kahului experiences mild and uniform temperatures year round, moderate humidity and a relatively consistent northeasterly trade wind. Local terrain conditions on the island are largely responsible for variations in climate. Average temperatures at MCC range from lows in the 60s to highs in the 80s (degrees Fahrenheit). Rainfall averages approximately 20 inches per year.

Air quality in Hawai'i, including the project area, is considered good and continues to be one of the best in the nation. Levels of pollutants monitored by the State of Hawai'i Department of Health remain well below state and federal ambient air quality standards (State of Hawai'i Department of Health 2006). There is one State air quality monitoring station on Maui; it is located in upper Kihei near agricultural land. This station monitors particulate matter that is 10 microns or less (PM<sub>10</sub>) and 2.5 microns or less (PM<sub>2.5</sub>) in aerodynamic diameter. PM<sub>10</sub> pollutants are considered "coarse" particles, generally from sources such as road and windblown dust, and crushing and grinding operations. PM<sub>2.5</sub> are considered "fine" particles that generally result from fuel combustion from motor vehicles, utility generation and industrial facilities. These fine particles can also be formed when gases, such as sulfur dioxide and nitrogen dioxide, are chemically transformed into particles (State DOH 2006). The data for the Kihei station indicate that the pollutants measured were well within State and Federal standards.

#### 3.1.5 Noise

Ambient noise at the project area is generated by vehicular traffic on nearby Ka'ahumanu Avenue, along with occasional aircraft noise associated with Kahului Airport, and activity in Kahului Harbor. Noise sensitive receptors within the vicinity of MCC include the Harbor Lights condominium (approximately 1,500 ft east of the project area) and single family residences across Ka'ahumanu Avenue (approximately 800 ft south of the project site).

### 3.2 Biological Resources

#### 3.2.1 Flora and Fauna

The northern half of the project area consists of an unpaved, open area of compacted earth that provides overflow parking and vehicular access to the western end of campus. The southwestern quadrant of the project site primarily consists of an open field covered with turf grass (probably *Cynodon* sp.). An unused volleyball court is located on the southeastern quadrant of the project area. The perimeter of this area has become overgrown with haole koa (*Leucaena leucocephala*), a weedy shrub species, and oleander (*Nerium oleander*). Norfolk Island Pine trees (*Araucaria heterophylla*) and oleander border the north side of the existing tennis courts, near the southern boundary of the project area. None of the plant species found on the site are considered threatened, endangered or protected; they are considered common, introduced species.

The plant species found at the project site are not considered sensitive habitats, and no threatened, endangered, or protected animal species are known to, or are likely to, exist at or

frequent the area. Fauna and avifauna likely to inhabit the site include those common to urbanized areas. They include mongoose, rats, dogs and cats, mynas, doves, and house sparrows (Munekiyo & Hiraga, Inc. 2008).

### 3.3 Archaeological and Cultural Resources

#### 3.3.1 Archaeological Resources

An archaeological inventory survey was prepared for the proposed action by Pacific Legacy, Inc., to determine previous land use through archival research and to determine the presence or absence of subsurface historic properties representing previous pre-historic and historic use of the area. The following is a summary of the report findings, with the full report included as Appendix A. Subsurface testing was conducted for the inventory survey. Twelve backhoe trenches were excavated within the project area. No historic cultural materials were identified in any of them. Fill material was identified within all of the trenches; the fill is recent and associated with the effort to level and gravel the auxiliary parking area currently in use. All of the sand in the trenches exhibited homogenous characteristics suggestive of the basal layers of a former dune environment and application of fill following dredging of Kahului Harbor. This corresponds with the early (c. 1882) map by Monsarrat depicting extension of the dune system across portions of the current Maui Community College.

#### 3.3.2 Cultural Resources

Article XII, Section 7 of the Constitution of the State of Hawaii (as amended) addresses traditional and customary rights, and states: “The State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights.” HRS Chapter 343 requires disclosure of the effects of a proposed action on the cultural practices of the community and State. This section summarizes the historical context of the project area (from Pacific Legacy, Inc. 2008) and identifies any known cultural practices occurring on the project area.

#### **Settlement Patterns and Historical Context**

Archaeological and historic evidence substantiates the significance of the area spanning Waihe`e south to Waikapu. The valleys, which cut deep into the mountain slopes, provide the eastern side of the West Maui Mountains with a tremendous watershed that, during the prehistoric and early historic era, fed contiguous taro fields.

Terraced taro fields traditionally spread throughout the Iao Valley flow, extending both to the north and south of the stream on the plateau above the stream valley. Extant *lo`i* walls (terraced pond fields) are still in evidence within the residential subdivisions dotting the valley floor today, many of which mirror the Land Commission Awards of the 1848 Mahele division.

Given the dramatic extent of viable agriculture during the traditional times, it is not surprising that a sizable population base would have resided in the area. Both Wailuku and the broader West Maui are associated with a number of *ali'i* (nobility), suggesting the central nature of Wailuku as a political power.

By 1800, contact between the western world and Hawai'i had resulted in several major changes. The first and foremost in terms of impact was the introduction of infectious diseases which had already begun to decimate the resolute people of the islands. The second was a by-product of the first; the introduction and acceptance of Christianity. The first missionary station in Wailuku was established in 1832, the census of which recorded a population of 2,256 in Wailuku *ahupua'a* (land division extending from the mountain to the ocean) (Schmitt 1973 in Pacific Legacy, Inc. 2008). Eight years later in 1840, a second missionary census demonstrated continued decline with the population listed as 1,364. This demographic collapse was historically invisible, as between 50% and 90% of populations were subjected to repeated episodes of introduced infectious diseases to which they had no immunity. The decline was especially pronounced in densely populated areas which were political and agricultural centers like Wailuku.

Kahului and Wailuku were also subjected to natural disasters such as the tsunami of 1837 and subsequent tidal waves (Armstrong 1973 in Pacific Legacy, Inc. 2008).

By the time of the Mahele, the land division, Wailuku *ahupua'a* was determined to be Crown Land. The majority of the Land Commission Awards (LCA) allotted to individuals traditionally tended was located in areas most amenable to agriculture; either wet land taro, existing house lots, or dry land agricultural endeavors. These were to the north and west of the dune defining the confines of Iao Stream, as well as along Waikapu, Waihe'e and Wai'ehu Streams.

Kalua, the land division indicated as the southern boundary of LCA 420, is the area within which the project is situated. Little information is available regarding this *'ili* (subdivision of an *ahupua'a*, with the exception of the notation that Grant 7713 was awarded to Victoria Kamamalu (Appendix A; page 441 in Pacific Legacy, Inc. 2008). The Kalua tract is a large *'ili* extending from the sea inland across the sand hills south of Ka'ahumanu Ave and terminating at the present day High Street. The land within this *'ili* consists largely of dune environment up to and across the sand hills (now a residential subdivision).

**World War II.** World War II brought numerous changes to Maui, including a long-term military presence. United States military camps were located in various locations on Maui. The U.S. Navy Air Wings were centered around Kahului and Pu'unene. These units were primarily concerned with training pilots for air combat. In 1944, the 18th Service Battalion of the USMC, attached to the Fourth Marine Division at Camp Maui, designated an area between the current Kanaloa Avenue, and the present Maui Community College campus, just inland of the Kahului Bay, as the location for the 18th Service Battalion Camp. Structures were located parallel to the present Kahului Beach Road and the shoreline, as well as to the railroad that ran along the coastline fronting the present Keopuolani Park, Maui Arts and Cultural Center, and the MCC campus. In 1947, the camp was turned over to the Kahului Railroad Company. The Quonset huts were used by the company until termination of the railroad system in 1965, when they were

then used by private businesses. The Quonset huts were demolished in the 1980s, leaving few visible remnants of the World War II use of the area.

**Maui Community College.** Immediately following WWII, construction on the expansion of the Maui Vocational School began (Fredericksen and Fredericksen 1992A in Pacific Legacy, Inc. 2008). The campus was originally located in closer proximity to Kahului School on Ka‘ahumanu Avenue. The existing campus is constructed on land originally donated by Hawaiian Commercial and Sugar Company. It was at this time that the auto, carpentry, and machine shops were constructed. An architectural/drafting program was added to the existing vocational programs which included dressmaking. The name was changed to Maui Technical School. Seven years later (1965) the Community College System was created under the umbrella of the University of Hawaii. General education programs were added via construction of new buildings, and the campus has continued to expand. The project area comprises a portion of the former playing fields adjacent to the Physical Education Building and locker rooms, which are currently used for art programs. Based on the present topography of the portion of the project area proposed for the Science building, filling was conducted to level the area for use during physical education.

### Oral History Interviews

To supplement the archival research and provide additional cultural context, input was sought from organizations and individuals who were thought to have expertise or pertinent knowledge on the project area. Letters of inquiry were sent to the following:

- Policy Advocate-Preservation, Native Rights, Land and Culture, Office of Hawaiian Affairs
- Office of Hawaiian Affairs’ Maui office
- Cultural Historian, Historic Preservation Division State of Hawaii, Department of Land & Natural Resources
- Cultural Resource Planner, Maui County Department of Planning
- Central Maui Hawaiian Civic Club
- Maui Historical Society

Advice was sought from Kiope Raymond, Professor of Hawaiian Studies and Language at MCC, on knowledgeable individuals. Three individuals who were associated with past uses of the project area and its environs or who were familiar with cultural issues related to the area were subsequently identified and interviewed: George Sano, Manabu Kimura, and Hōkūlani Holt-Padilla.

**George Sano.** Mr. Sano is a former MCC instructor, administrator and Facilities Planner. The interview was conducted on March 6, 2008 in Room 102 of the Ka Lama Building (Building 249) on the MCC campus. The purpose of interview was to discuss the development of the school and former uses of the project site, including any current or past cultural practices.

Mr. Sano was born and raised in Wailuku, Maui. He graduated from Baldwin High School and joined the Army in 1942. He served with the Military Intelligence Service and spent one year in Japan with General MacArthur’s staff (1945-46). After his military service, Mr. Sano attended Bradley University in Peoria, Illinois and earned a B.S. in Industrial Education in 1950. After

his graduation from Bradley University, Mr. Sano returned to Maui and began teaching Shop and Mechanical Drawing at Puunene School and Iao School on Maui, and Honokaa School on Hawai'i Island.

Mr. Sano returned to Maui in 1958 to accept a position at Maui Technical School (later Maui Community College), where he became Director of Administration. Mr. Sano took over MCC's Facilities Planning position in 1966, and continued until his retirement from the college in 1979. During his tenure at MCC, Mr. Sano also served as Acting Provost and taught Vocational Education courses (e.g., blueprint reading and the apprenticeship program).

Maui Technical School was originally located south of Ka'ahumanu Avenue. The Lower Campus of MCC was first developed (about 12 acres), in the southeast corner of what is now the current Kahului Campus. MCC gradually acquired and developed the Upper Campus (Wailuku end) from Alexander and Baldwin, until the total acreage reached 72 acres. Mr. Sano recalled that prior to its development into MCC facilities, the entire area was an undeveloped kiawe forest.

The first projects Mr. Sano was involved in were the *hale* buildings and existing science building (late 1960s). Mr. Sano was also involved in the planning and construction of the library in the early 1970s. A drive-in theater had occupied the area now occupied by the large parking lot. Mr. Sano also developed the student center building, which was completed in the early 1970s. He was also involved in the development of the physical education building (Building 231, now ceramics), tennis courts, and modernization of the vocational education buildings in the lower campus.

Mr. Sano recalled that there was originally a hill or knoll in the upper end of the campus (near Wahine Pi'o Avenue). Earth from this knoll was used to backfill the low lands found in the middle part of the campus, including the new science building project area. Mr. Sano estimated that there was close to 10 feet of fill used to build up the land.

There was a Texaco service station on the northwest corner of the intersection of Ka'ahumanu Avenue and Wakea Avenue (currently on MCC property), which was then on privately-owned lands. It was demolished when MCC developed the campus in 1966. Associated underground tanks were removed at that time.

Mr. Sano noted that there was a used car lot on the corner of Ka'ahumanu Avenue and Kahului Beach Road. This area was formerly a Foodland store. A fertilizer plant was a long-time use in the area between the Harbor Lights condominium and the Foodland store/used car lot parcel.

There was a long break in development of MCC facilities from the late 1970s to the early 1990s, with the exception of the operations building in the 1980s.

Mr. Sano was not aware of any past or current cultural activities or practices (Native Hawaiian or other ethnic group) on the project area or its vicinity.

**Manabu Kimura.** The late Mr. Manabu Kimura was a former resident of “Raw Fish Camp,” a small settlement of homes formerly located near the project area. The interview was conducted at Kahului Union Church in Kahului on March 6, 2008. (Note: Mr. Kimura passed away several weeks after the interview was conducted.) The purpose of the interview was to discuss historical use of the project site and its vicinity (specifically the Raw Fish Camp), including any current or past cultural practices.

Mr. Kimura was born and raised in Kahului, Maui and was the youngest of seven siblings. His parents arrived in Hawai‘i from Japan in the early 1900s. Mr. Kimura attended Kahului School and graduated from Baldwin High School in 1953. He then enlisted in the Army and spent 2-1/2 years at Fort Bragg, North Carolina. After his discharge in 1956, Mr. Kimura enrolled at the University of Hawai‘i, where he earned a degree in Business in 1960. Mr. Kimura worked as a personnel technician for the State of Hawai‘i and then the City and County of Honolulu before returning to Maui in 1967 to take a job as a personnel technician with the County. He was appointed as Deputy Personnel Director for Maui County in 1971 and spent 15 years in that position. In 1985, he was appointed the Personnel Director, where he served until his retirement in 1990. In 1995, Mr. Kimura was appointed by Governor Cayetano as Chief Labor Negotiator and spent 3-1/2 years in that position. He retired in 1998, and has served since then as the Administrative Officer for Kahului Union Church.

Until he was six years old, Mr. Kimura’s family rented a house in the Kahului Camp area. The family then moved to Raw Fish Camp. Raw Fish Camp was officially known as “Breakwater Camp.” It was located on a strip of land located on the central portion of the undeveloped parcel of land that contains the MCC retention basin, and ran from approximately Kaihee Place in the south northward across the current Wahine Pi‘o Avenue. It consisted of 20 homes for employees of or those affiliated with the Kahului Railroad Company. Because Mr. Kimura’s eldest brother worked for Kahului Railroad, the family was eligible for a home at the Camp, and the family moved there in 1942. Mr. Kimura lived at the camp from 1942 until his graduation from high school in 1953.

At that time, the Kahului Railroad Company’s tracks ran from Kahului Harbor, along the southwest (*mauka*) side of the camp, northward beyond what is now the Maui Arts and Cultural Center, and on the coastline along Kahului Beach Road to Wailuku. There was also a fertilizer plant on the area adjacent to what is now Harbor Lights condominium, and the train tracks also served this plant. The children would also walk from the camp along the train tracks to school. During the 1940s, the area now occupied by MCC and Maui Arts and Cultural Center was covered by kiawe forest, except the areas occupied by the 18<sup>th</sup> Service Marine Corps camp. Children from the Raw Fish Camp would sometimes crawl through the barbed wire fence separating their homes from the Marine camp to explore around the military vehicles parked in the Marine camp and the 20 or so Quonset hut storage warehouses in the northern portion of the Marine camp. The Raw Fish Camp residents were of various ethnicities, including: Filipino, Hawaiian, Japanese and Portuguese. With the exception of Hawaiians, most of the other residents were second generation residents of Hawai‘i. Mr. Kimura thought the camp was probably disbanded in the 1960s. Mr. Kimura did a lot of spearfishing for reef fish and octopus in Kahului Harbor in his childhood.

Mr. Kimura was not aware of any past or current cultural activities or practices (Native Hawaiian or other ethnic group) on the project area or its vicinity. In his recollection, the MCC area was never used and covered by scrub vegetation until its development by MCC.

***Hōkūlani Holt-Padilla.*** Ms. Holt-Padilla is the Cultural Programs Director at the Maui Arts and Cultural Center. A telephone interview was conducted on March 12, 2008. The purpose of the interview was to discuss potential impacts of the proposed MCC science building on Native Hawaiian cultural practices or traditions.

Ms. Holt-Padilla was born in Honolulu and was raised partially in Honolulu and partially in Waiehu, Maui. She lived with her grandparents in Waiehu until she entered elementary school at Kamehameha School on O‘ahu, and during school vacations. Ms. Holt-Padilla lived with her parents, Leiana Long Woodside and Harry H. Holt, in Honolulu during the school year. Both parents were born on Maui. After graduating from Kamehameha School, Ms. Holt-Padilla attended the University of Hawai‘i at Mānoa. She returned to Maui in 1975, where she has since lived.

After moving back to Maui, Ms. Holt-Padilla served in the State of Hawai‘i’s Artists in the Schools program and then worked at the Bailey House Museum. She also served as the director of the Pūnana Leo O Maui Hawaiian language immersion preschool, then as the program coordinator of Nā Pua No‘eau, a center for gifted and talented native Hawaiian children. After that, Ms. Holt-Padilla became the Education and Cultural Director at the Kaho‘olawe Island Reserve Commission until she accepted the position of Cultural Programs Director at the Maui Arts & Cultural Center.

Ms. Holt-Padilla is a *kumu hula*, who formed her *halau* in 1976. She comes from a genealogy of *kumu hula*, with both her mother and grandmother also *kumu hula*. Ms. Holt-Padilla also studied with Hoakalei Kamau‘u in Honolulu for five years prior to her return to Maui.

Although her grandparents were fluent and literate in the Hawaiian language, as was common practice at that time, they did not typically converse with their children or grandchildren in Hawaiian, nor did they formally teach them the language. Ms. Holt-Padilla studied and became literate in Hawaiian as an adult after studying it in college.

Ms. Holt-Padilla described several Native Hawaiian cultural issues that may be relevant to the proposed Science Building.

View Planes. View planes are important to Hawaiian culture. The region in which the science building project is located contains some of the best views of Pu‘u Kukui, the highest peak in the West Maui Mountains.

Mountains and valleys play an important role in Maui’s cultural history, by providing landmarks and points of reference for traditional cultural practices, such as fishing. For example, the nearshore areas along Kahului Beach Road, Kahului Harbor and the Kahului hotels were heavily used for fishing. Fishermen at sea would triangulate the

points and peaks on the mountain range with other landmarks such as Wai‘ehu Point or Nehe Point to confirm that they were in a particular fishing spot.

While Ms. Holt-Padilla was not personally familiar with specific landmarks and their corresponding triangulation points, she noted that there may be individuals who still practice this method of spatial navigation, and descriptions of such landmarks and their use for finding fishing spots may exist in recorded works (e.g., old Hawaiian language newspapers). Ms. Holt-Padilla wanted to emphasize the past--and potentially current--existence of these practices, and the associated importance of the mauka view planes.

Winds. Ms. Holt-Padilla described the importance of winds from a traditional Hawaiian cultural perspective. Traditionally, much about one’s environment could be discerned from observing the effects of winds in Nā Wai ‘Eha, or the Wailuku District. For example, seeing the ‘iwa (Great Frigate Bird) soaring in the windstream from Kahului to Wailuku might indicate an upcoming storm. Winds also provide other clues about the surrounding environment, such as smells and sounds. Traditional names associated with wind and cloud formations in the Wailuku District hold important places in people’s lives through songs, stories and genealogies. When winds are blocked or changed by large developments, there may also be effects on the local environment, through changes in temperature and the loss of the wind’s environmental clues.

Miscellaneous. Ms. Holt-Padilla indicated that elements incorporated into the project could serve to mitigate the effects on cultural practices. She recommended use of native plants, consistent with the region, in the landscape scheme. She also noted that the sustainable features that utilize energy from the immediate environment (e.g., solar and wind energy) would be helpful to mitigate impacts.

### 3.4 Infrastructure and Public Services

#### 3.4.1 Traffic and Roadways

Major public roadways surrounding the campus include:

- Ka‘ahumanu Avenue (Route 32), a four-lane major arterial providing the principal linkage between Wailuku and Kahului;
- Wahine Pi‘o Avenue, a two-lane urban collector (east of Cameron Way); and
- Kahului Beach Road (Route 340), a two-lane major arterial.

All these roadways are State-owned. MCC’s main entrance is at a signalized intersection of Ka‘ahumanu Avenue and Wakea Avenue. Wahine Pi‘o Avenue extends from Ka‘ahumanu Avenue to Kahului Beach Road along the northern campus boundary and provides two additional (unsignalized) driveway entrances to MCC. The primary entrance from Wahine Pi‘o Avenue is to the main parking lot across from the Maui Arts & Cultural Center. The second driveway is across from the Keopulani Park access road intersection, providing access to the County’s recycling center as well as the MCC upper campus area (including the proposed project site).

Existing (April 2006) morning and afternoon peak hour volumes along Wahine Pi‘o Avenue at its approach to the Ka‘ahumanu intersection are estimated as follows:

**Table 1: Wahine Pi‘o Avenue Existing Peak Hour Traffic Volumes**

Direction	AM	PM
Southbound	1,257	1,052
Northbound	859	1,544
Total	2,116	2,596

Source: Fehr & Peers/Kaku Associates 2007 (Figure 5)

The adjacent intersections with Kaahumanu Avenue and Kahului Beach Road operate at Level of Service (LOS) B for the AM and PM peak hours, except for the morning at the Ka‘ahumanu Avenue intersection which operates at LOS C, both considered acceptable levels of service for urban intersections (Fehr & Peers/Kaku Associates 2007 (Table 3)).

### 3.4.2 Parking

According to MCC operations and maintenance staff, there are 1,037 existing parking stalls at the Kahului Campus (excluding unpaved, auxiliary lots such as the gravel-covered lot within the project site that will be displaced by the project). A ratio of 0.5 stalls per FTE enrollment is the current standard used by the University of Hawai‘i to calculate its on-campus parking requirements. Applying this to MCC’s current FTE enrollment of 1,664 FTE, MCC’s current parking requirement is 832 stalls, representing a current surplus of 205 stalls.

According to MCC facilities planners, the existing parking is adequate<sup>4</sup> to accommodate typical usage during the academic year, with the exception of peak periods such as the beginning of fall semester. Overflow parking demand during these periods is accommodated at open, unpaved areas on campus.

The Maui County Planning Department uses a parking calculation methodology based on facility floor area and type of use (e.g., 8 stalls/classroom, 1 stall/500 ft<sup>2</sup> of office, etc.). This methodology (Maui County 2007) takes a somewhat conservative approach in assuming all facilities are in use at the same time when, in fact, there is a significant amount of shared use occurring that is typical with a college campus; i.e., students rotate from one classroom or lab to the other, and all facilities are not in use at the same time. If this methodology is applied to current MCC facilities, a total of 1,268 parking stalls would be required – equivalent to 0.76 stalls per FTE. Under this approach, MCC’s Kahului campus would have an existing deficit of 231 parking stalls. However, as noted above, this “paper” deficit is not evident at MCC, except during the infrequent peak events where overflow parking is provided at unpaved, overflow parking areas. Under all conditions, MCC’s parking demand is accommodated on-campus and does not adversely affect off-campus, on-street parking on public roadways.

<sup>4</sup> For example, there are extra spaces available, there are no long queues of cars waiting for stalls, and there is no spillover of cars onto adjacent properties or streets.

### 3.4.3 Potable Water

According to the Maui County Department of Water Supply (DWS), the project area is served by the Central Maui System. The main sources of water for the Central system are the designated Iao aquifer, Waihe'e aquifer, the 'Iao tunnel and the 'Iao-Waikapu Ditch. New source development projects include Maui Lani Wells, Waikapu South Well and Waiale Surface Water Treatment Plant. MCC is served by two 4-inch meters and one 2-inch meter. Current consumption for MCC is 59,563 gpd. There is currently no additional source available according to system standards on the Central Maui system.

There is a 12-inch waterline running along and perpendicular to Ka'ahumanu Avenue, which terminates southeast of the proposed project. A private 12-inch waterline with two private hydrants border the project on the north. Three DWS fire hydrants are located southeast of the proposed building site.

### 3.4.4 Wastewater

Domestic wastewater generated in the Wailuku-Kahului region is conveyed to the County's Wailuku-Kahului WWRF located one-half mile south of Kahului Harbor. The design capacity of the facility is 7.9 million gallons per day (mgd). Cumulative wastewater flow allocated is approximately 6.6 mgd (Chris Hart & Partners, Inc. 2007).

Two separate sewer systems currently serve the MCC campus. Wastewater from the west side of campus gravity flows into the County's 30-inch sewer, which runs through the campus. This line runs through the campus just west of the Student Center (Building 232) within a Sanitary Sewer easement and traverses north until it ultimately meets Kahului Beach Road. Once along Kahului Beach Road, the County line runs north to the Wailuku Sewage Pump Station (SPS). The wastewater is then pumped back east to the Wailuku-Kahului WWRF.

The east side system gravity flows into an on-campus sewage pump station. The wastewater is pumped from this station to a County sewer manhole located within Ka'ahumanu Avenue along the eastern most boundary of campus. The wastewater then flows east towards the Kahului SPS and is pumped to the Wailuku-Kahului WWRF.

### 3.4.5 Storm Drainage

Existing runoff within the project area sheet flows along the ground surface to areas surrounding the project site and percolates into the ground or flows into grassed swales then into grated drain inlets. Underground piping between the drain inlets are then discharged into the retention basin located northeast of the site (adjacent to the main MCC parking lot). The existing flow for the approximately 3-acre site is approximately 8.9 cubic feet per second (cfs).

### 3.4.6 Electrical Power

Electrical service to the MCC campus is provided by an existing 12.47-kilovolt (kV) primary distribution system, which receives two primary circuits from Maui Electric Company.

### 3.4.7 Solid Waste

A private refuse company collects solid waste from MCC for disposal. There are solid waste disposal bins located throughout the campus. To support and encourage recycling on campus and in the community, MCC allows the County to operate a recycling center on campus property at the intersection of Wahine Pi'o Avenue and the existing service driveway. The center accepts plastic, glass, aluminum, newspaper and cardboard. It is also a redemption center for the HI-5 (bottle deposit) recycling program. A private refuse disposal service collects the materials on a regular basis.

### 3.4.8 Hazardous Materials and Waste

Three general types of hazardous materials are used by MCC's Science Division in small amounts: acids, acid bases and organic solvents. These materials are used in the laboratories and stored in appropriate containers. Approximately twice a year, after use in the science laboratories, these accumulated hazardous wastes are picked up by a private disposal company and disposed of in accordance with applicable Federal, State and County requirements. Maui Community College disposes of its hazardous wastes according to applicable Federal, State and County regulations. Only non-hazardous materials are disposed of into the wastewater system.

### 3.4.9 Police and Fire Protection

Police protection for the Wailuku-Kahului region is provided by Maui County Police Department's Wailuku (Central) Police Station. A police community service office is also located on the MCC campus and increases the level of police presence at the College.

The MCC campus is served by the Wailuku Fire Station, located approximately 1.8 miles from MCC and the Kahului Fire Station, located on Dairy Road.

## **3.5 Socio-Economic Factors**

The resident population of Maui County increased from 101,709 in 1990 to 128,921 in 2000 (State of Hawai'i Department of Business, Economic Development and Tourism (DBEDT) 2008). According to projections prepared for the Maui County General Plan 2030, Maui County's resident population was projected to increase to 174,450 in 2020 and 199,550 in 2030 (Maui County 2006). The same analysis projected that the population of the Wailuku-Kahului planning area would rise from 41,503 in 2000 to 60,877 in 2020 and 71,223 in 2030.

Maui County experienced strong housing demand between 2000 and 2005, largely due to the strong local economy, low mortgage rates and interest by off-shore investors. For example, 37% of Maui island housing sales in 2004 were to non-Maui residents (Maui County 2006).

Data from the State of Hawai'i Department of Labor and Industrial Relations indicate that Maui County's major employment sources in 2006 were accommodation and food services (28%), transportation and utilities (13%), and government (12%) (State of Hawai'i 2007). Construction

(6%), health care (6%), administrative and waste services (6%), and wholesale trade (5%) were also notable sources of the county's employment.

### 3.6 Visual Resources

The Maui Coastal Scenic Resources Study (Maui County 1990) includes a descriptive inventory of the scenic and open space resources within certain regions and sets forth recommendations related to coastal view resource management policies, design review criteria and land use SMA boundary amendments. In the Wailuku to Paia area (in which the project area is located), views are dominated by the West Maui Mountains, Haleakala to the east, Kahului Harbor and agricultural land as open space. The Wailuku-Kahului area has an urban character, though there are still significant views of the Kanaha Wildlife Refuge and Kahului Harbor. At high points along Lower Beach Road, there are wide views of the harbor, the airport and Haleakala to the east, with Iao Valley and the West Maui Mountains to the west. The study identifies views of West Maui Mountains from Waiehu Beach Road and Ka'ahumanu Avenue as "distinctive," which suggests a "highly visually impactful scene."

## Chapter 4: ENVIRONMENTAL CONSEQUENCES

### 4.1 Physical Environment

#### 4.1.1 Soils and Topography

The proposed action is not expected to affect geological conditions in the vicinity of the project area or in the Wailuku-Kahului region. Because finish floor elevation of the new facilities are likely to generally match existing grades, site grading for the proposed building and parking lot should generally be limited to shallow cuts and fills. The construction contractor will develop and implement a site-specific best management practices (BMP) plan that will identify BMPs to minimize soil erosion. The following are examples of construction period BMPs that will be implemented:

- use of silt fences
- cover construction ingress/egress with gravel
- protection of drainage inlets

#### 4.1.2 Surface and Ground Water

Since there are no streams, wetlands or other surface waters on or in the vicinity of the project area, and since the project area is 1,700 feet from any marine waters and there are no surface streams in the vicinity, the proposed action is not expected to adversely affect surface or ground water resources.

The construction contractor will develop and implement a site-specific BMP plan to minimize impacts to ground and surface water sources, which will include preventing pollutants, such as sediments, from reaching marine waters.

The project will also require a National Pollutant Discharge Elimination System (NPDES) permit from the State of Hawaii DOH for construction. Project construction will comply with all NPDES permit requirements.

#### 4.1.3 Natural Hazards

The proposed action is not expected to increase the risk to human health or safety due to natural hazards such as tsunamis or flooding. The project area is outside flood hazard areas and outside the tsunami evacuation areas identified by the County. A foundation investigation of soil conditions at the project site concluded that, from a geotechnical viewpoint, the site can generally be developed as planned (Hirata & Associates 2008). The exploratory fieldwork and laboratory testing associated with the foundation investigation did not indicate any elevated risk of subsidence or erosion that may pose a hazard to life and/or property when the new building is constructed.

#### 4.1.4 Climate and Air Quality

The proposed action will not significantly impact climate or air quality because it would not introduce any new major air pollution sources. Air quality data from the nearest State monitoring station and overall ambient air quality data for the State suggest that the project area is well within Federal and State standards. There will be short-term, temporary air quality effects during the construction period resulting from diesel-powered construction equipment and earth-moving activities. Prior to construction, a dust control management plan will be developed. Construction contractors will operate under this plan and best management practices for dust control would be implemented. All construction activities will comply with State DOH standards for fugitive dust. During the operational period, the planned emergency generator will require an air quality permit from the State DOH. The use and operation of the emergency generator will comply with all applicable DOH permit requirements.

#### 4.1.5 Noise

The proposed action is not expected to significantly impact ambient noise levels. Short-term, temporary noise impacts will be generated during project construction by equipment and vehicles. Due to their distance from the project area, noise sensitive uses near MCC (i.e., Harbor Lights condominium and single family residential uses across Ka‘ahumanu Avenue) are unlikely to be adversely affected by construction noise. Project construction activities will comply with HAR, Chapter 11-46 “Community Noise Control” as administered by the State DOH.

### **4.2 Biological Resources**

#### 4.2.1 Flora and Fauna

The proposed action will not significantly impact biological resources. There is no known rare, threatened, or endangered plant or animal species within the project area. Development of the project area may require removal of the existing trees and other vegetation from the property; however, these trees are not rare, threatened or endangered species and are not known to have historic significance (i.e., associated with historical figures or events). Landscaping plants will be selected for their site-adaptive and low maintenance characteristics. Native Hawaiian or Polynesian-Introduced plant species will be used throughout the project as much as possible. Any biohazards that may be generated at the new facility (such as the exotic organisms, seeds and plant cuttings) will be autoclaved prior to disposal. The risk of exotic organisms and cross-contamination is minimized by compliance with rules and policies set up by the U.S. Department of Agriculture and the University of Hawai‘i.

### **4.3 Archaeological and Cultural Resources**

#### 4.3.1 Archaeological Resources

No effects on archaeological resources or historic properties are anticipated from the proposed action. The results of the archaeological inventory survey (AIS) suggest that there is a low potential for encountering historic and cultural properties during construction of the proposed

science building on the MCC campus. The Department of Land and Natural Resources (DLNR) State Historic Preservation Division (SHPD) reviewed and accepted the AIS (see Appendix A for the AIS and DLNR SHPD correspondence). It is unlikely that remnants of pre-historic use of the area will be identified during excavation associated with building construction. Subsequent uses during the historic period, including but not limited to the use of the project vicinity by the 18th Marine Corps Service Battalion, may have left historic remnants not yet identified.

Although no historic properties or cultural materials were identified within the trenches, the presence of aeolian sand in the subsurface deposits indicates that it is still possible that historic properties may be identified during ground altering activities. An archaeological monitor will be present during all ground altering activities that exceed a depth of 18-inches below the current ground surface to mitigate impacts to historic properties that may be identified in the subsurface deposit. DLNR SHPD concurred with the proposed level of monitoring. A formal monitoring plan will be submitted to DLNR SHPD for review and acceptance prior to the application for building permits. In accordance with Section 6E, HRS, if any significant cultural deposits or human skeletal remains are encountered, the DLNR SHPD will be contacted. The Office of Hawaiian Affairs will also be contacted if any Native Hawaiian burials are encountered.

#### 4.3.2 Cultural Resources

There are no Native Hawaiian (or other ethnic group's) cultural practices customarily and traditionally exercised for subsistence, cultural and religious purposes that are known to occur on the project area. Although the specific project area does not currently support traditional or cultural practices, the project's cultural impacts were evaluated more holistically—i.e., how it may impact the conditions and use of the air above it, the ocean, and the mountains.

The footprint and height of the new building could impact how a cultural practitioner interacts with the environment if important regional view planes or wind effects are affected. Section 4.6 includes a detailed discussion on the project's anticipated visual impacts. Due to the intervening buildings and vegetation, the new science building will not be visible from Kahului Harbor or Kahului Bay and would not interfere with views from the ocean to the West Maui Mountains or Haleakala. The scale of the new buildings will not affect regional wind patterns.

Based on the above analysis, it is reasonable to conclude that the proposed action will not adversely affect traditional Hawaiian rights related to gathering, access, or other customary activities within the project area or its vicinity, or any cultural practices or beliefs.

### **4.4 Infrastructure and Public Services**

#### 4.4.1 Traffic and Roadways

The proposed science building project is not expected to have a significant impact on roadways and traffic in the area. Vehicles associated with the proposed science building will likely access the campus via one of the two Wahine Pi'o Avenue driveways. Annual traffic growth along Ka'ahumanu Avenue is estimated at 0.7% for the morning peak hour and 0.4% for the afternoon peak hour (Fehr & Peers/Kaku Associates 2007) and traffic volumes along Wahine Pi'o are also

expected to increase at about the same rate (ibid). Traffic volumes along Wahine Pi‘o Avenue are expected to increase by a modest amount by 2010 – the time the proposed action is expected to be operational (2.8% increase in AM peak hour traffic and a 1.6% increase in PM Peak Hour traffic).

Intersection LOS was projected for the Year 2030 for nearby intersections (Fehr & Peers/Kaku Associates 2007 (Table 9)). The adjacent intersections of Wahine Pi‘o Avenue with Ka‘ahumanu Avenue and Kahului Beach Road are expected to operate at LOS B and C, respectively, for the AM and PM peak hours, except for the afternoon at the Ka‘ahumanu Avenue intersection, which is projected to operate at LOS B, both considered acceptable levels of service for urban intersections.

The proposed 33,000 ft<sup>2</sup> science building will replace an existing 15,000 ft<sup>2</sup> science building, resulting in a net floor area increase of 18,000 ft<sup>2</sup>. Trip generation for that increase in floor area is summarized in Table 2 below. As noted above, project related traffic, to the extent there is any change,<sup>5</sup> would be distributed to the two Wahine Pi‘o Avenue driveways, further diffusing the effect of additional turning movements on the adjacent street.

**Table 2: Vehicle Trip Generation**

Morning Peak Hour			Afternoon Peak Hour		
Total	Enter	Exit	Total	Enter	Exit
54	40	14	46	27	19

Source: Trip Generation 7<sup>th</sup> Ed. Institute of Transportation Engineers 2003

The traffic generated by the proposed action will be less than the threshold suggested by the Institute of Transportation Engineers “that a traffic access/impact study be conducted whenever a proposed development will generate 100 or more added (new) peak direction trips to or from the site during the adjacent roadways’ peak hours or the development’s peak hour” (Institute of Transportation Engineers 1991). Driveway volumes at the project site are less than this threshold and the project is not expected to have a significant traffic impact.

The State of Hawaii Department of Transportation commented that the proposed project will not significantly impact State transportation facilities in the area (see letter dated February 25, 2008 included in Appendix B).

#### 4.4.2 Parking

The proposed action is not expected to result in a direct increase in enrollment or employment, so it will not likely generate additional vehicle trips or parking demand in itself. However, by the time the science building is completed and occupied (c. 2010), MCC’s FTE enrollment may increase to 1,926 FTE (assuming an optimistic projection of five-percent increase in FTE per

<sup>5</sup> The proposed action is not expected to result in a direct increase in enrollment or employment, so it will not likely generate additional vehicle trips. Over time, as new programs are developed, enrollment is expected to grow along with increased traffic generation. The above analysis takes a conservative approach assuming the upgraded science facilities will generate additional traffic.

year over the 2007 FTE enrollment of 1,664). Applying the parking planning standard used by UH (i.e., 0.5 stall per FTE), a total of 963 off-street parking stalls would be required. The proposed action includes a 61-stall paved parking lot, which will increase MCC’s parking inventory to 1,098 stalls.<sup>6</sup> With the addition of the science building parking stalls, MCC would still have a surplus of 135 stalls.

If the Maui County Planning Department parking calculation methodology is applied, the proposed science building would require an additional 116.6 stalls (Table 3).

**Table 3: MCC New Science Building  
Parking Requirement Calculation (County Methodology)**

	<u>Ratio</u>	<u>ft<sup>2</sup></u>	<u>Stalls Required</u>
Classroom/labs (11)	8/clssrm		88.0
Office	1/500 sf	2,252	4.5
Lecture Auditorium	1/6 seats	120	20.0
Library/Student Study Area	1/300 sf	1,488	4.1
<b>Total</b>			<b>116.6</b>

The County’s parking calculation methodology assumes each academic, support, and administrative space is fully utilized and generates a unique parking requirement. Using the County’s methodology, MCC’s total parking requirement (with the new science building) would be 1,386 stalls (existing parking requirement of 1,268 + science building requirement of 116.6). This would result in a “paper” deficit of 288 stalls (1,386 required - 1,098 existing/to be constructed by project).

The proposed science building is not expected to increase MCC’s FTE enrollment by itself; it will modernize MCC’s science instruction facilities and improve the quality of educational services for its students. MCC’s Science Program is ongoing and is expected to increase its enrollment over time, on par with other MCC programs. Based on UH’s experience, facility utilization (including parking demand) is more appropriately defined as a function of FTE enrollment; as FTE enrollment increases, facility utilization increases, including increased parking demand.

Constructing college parking facilities based on conventional parking standards – and not factoring in the shared use that occurs on a college campus – would result in development of excess parking facilities that may have adverse effects. For example, in addition to the cost of constructing and maintaining the excess parking areas, the additional impervious surfaces would increase storm water runoff and the need to manage associated volumes and pollutants; contribute to the “heat island” effects; and utilize resources in advance of an actual, demonstrated long-term need.

<sup>6</sup> As noted in Section 3.4.2, the existing unpaved auxiliary parking area displaced by the proposed project is not included in the total parking stall count at MCC (i.e., 1,037 existing parking stalls) so its displacement would not affect the total number of “official” (i.e., paved and striped) stalls on-campus.

The MCC LRDP includes provision of sufficient on-campus parking to meet the parking requirements of its ultimate enrollment (2,500 stalls to support 5,000 FTE). Although there is no specific timeframe for reaching this level of enrollment, requisite parking facilities will be constructed as the FTE enrollment increases over time, and the long-term development plan is implemented.

Because the proposed science building is not expected to increase FTE enrollment *per se*, no adverse impacts to on- or off-site parking facilities are expected.

#### 4.4.3 Potable Water

The project is not expected to adversely affect potable water supplies or distribution. As described in Section 2.2.4, domestic water demand (excluding irrigation) for the project is estimated at 21,900 gpd, with a peak flow of 113 gpm. An estimated 1,500 gpm will be required for fire protection. The County of Maui Department of Water Supply indicated that the MCC master meter potable water allocation is adequate for the new Science Building (M&E Pacific 2008). However, if an additional or larger meter is determined to be required, the Department of Water Supply may delay issuance of meters until new sources are on line, and will not issue temporary construction meters for Central Maui projects. Proposed improvements to the water distribution system on campus will be sized to accommodate the calculated increases in demand.

#### 4.4.4 Wastewater

The proposed action will not significantly impact existing wastewater collection or treatment systems. The project area is within an urban area served by existing municipal utilities. Wastewater treatment for the project will be provided by the Wailuku-Kahului WWRF. The County wastewater system serving the area currently appears to be adequate to serve the proposed project, although capacity is limited and cannot be guaranteed until building permits are issued. Wastewater plans will conform to applicable provisions of the State Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." Only non-hazardous materials are disposed of into the wastewater system.

#### 4.4.5 Storm Drainage

The proposed action is not expected to significantly impact existing storm drainage facilities serving the area. Storm drainage flows from the site were calculated to increase from 8.9 cfs to 10.2 cfs with the project—an increase of 1.3 cfs or 15%. Of this, 3.3 cfs will continue to sheet flow from the site and percolate into the ground and the remaining 6.9 cfs would be directed to the drainage system, which ultimately discharges stormwater flows into the existing retention basin adjacent to the main MCC parking lot at the northeast boundary of the campus. The proposed underground storm water retention system will serve as a BMP to improve the quality and quantity of the runoff entering the existing drainage system. The storm water drainage system will capture and remove pollutants, such as total suspended solids and oils, from storm water runoff at levels that meet LEED requirements.

#### 4.4.6 Electrical Power

The proposed action is not expected to significantly impact the existing electrical generation and distribution system serving the area, as service to the site exists and necessary improvements will be provided by the project. The facility's overall electrical demand on off-site sources will be reduced by on-site power generation provided by the PV system mounted on the building's structure.

#### 4.4.7 Solid Waste

Because this project will be seeking LEED Silver certification, a construction waste management plan will be developed and included in the projects specification as part of the bid documents. The selected contractor must adhere to the construction waste management plan as identified in the bid specifications. Construction practices will recycle or salvage at least 50% of non-hazardous construction waste and site clearing debris from the municipal landfill to meet LEED requirements. The construction contractor will develop a site-specific construction waste management plan for the project.

No significant changes or impacts to the solid waste disposal system are anticipated from the project. After project completion, MCC's solid waste management plan will be implemented for the occupation/operation of the project. Solid waste collected at the science building will be collected by a private refuse disposal service along with other waste generated at the college. Since the existing science building will be reused (i.e., not demolished) as a part of this project, construction waste will be kept to a minimum. The new science building will include an area for the collection of recyclable items. MCC's intent is to sort and recycle all recyclable items used in the facility.

#### 4.4.8 Hazardous Materials and Waste

The quantities and types of hazardous materials used, stored and disposed of will be generally the same under the proposed action as under existing conditions (i.e., with or without the new science building). No adverse impacts are anticipated, as handling, storage and disposal of these materials and wastes will comply with applicable County, State and Federal requirements. The new science building will reduce the contamination risk associated with chemicals used in the laboratories because it includes laboratory spaces dedicated to the different science classes, which will reduce the need to handle and transport those hazardous materials within the facility.

#### 4.4.9 Police and Fire Protection

The proposed action is not expected to adversely impact police or fire protection service on campus or throughout the community.

### 4.5 Socio-Economic Factors

The proposed action is not expected to increase the County's resident or visitor populations. The project will contribute to short-term, temporary design and construction-related jobs, but is not

expected to result in an increase in permanent jobs. The project is not expected to increase MCC enrollments, although it will improve educational services and opportunities for the people of Maui by providing up-to-date science instructional facilities.

#### 4.6 Visual Resources

The proposed action will not have a significant adverse effect on important visual resources, as defined by Maui County. Due to the location in the center of the MCC campus and intervening vegetation and other MCC buildings, the project area and proposed buildings will not be visible from Waiehu Beach Road or Kahului Beach Road. Consequently, the proposed action will not affect “distinctive” views of the West Maui Mountains, as identified by the Maui Coastal Scenic Resources Study (Maui County Planning Department 1990). The new building will not be visible from the waters of Kahului Harbor or Kahului Bay.

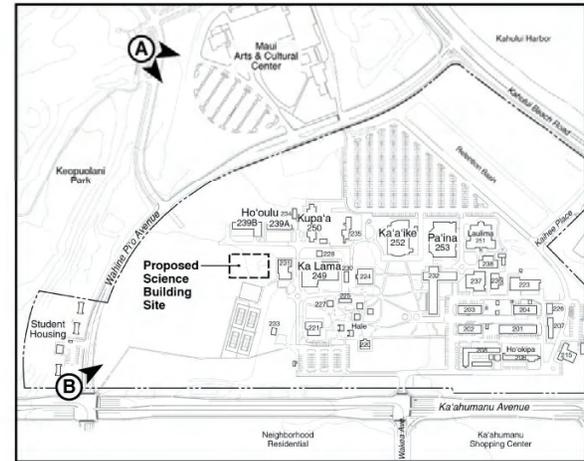
The new science building will be visible intermittently from Ka‘ahumanu Avenue. It will generally be shielded from view by vegetation along Ka‘ahumanu Avenue west of Wakea Avenue, but more visible along the portions of Ka‘ahumanu Avenue fronting the eastern end of campus. It will be similar in scale to the existing Ka Lama Building (Building 249).

The new science building will be visible from the west end of Wahine Pi‘o Avenue, including at its intersection with Ka‘ahumanu Avenue. Along the northern stretch of Wahine Pi‘o Avenue in the vicinity of the Maui Arts & Cultural Center, the roof of the science building may be visible above the Ho‘oulu agricultural complex buildings (Buildings 239A and 239B), but again, would be smaller in scale and height to the nearby Ka Lama building. The roof of the new facility will be visible from portions of Keopuolani Park. The final roofline (with wind turbines) will be shorter in elevation to Ka Lama (Building 249) and obscure views of the lower, distant slopes of Haleakala from those vantage points. The visual analysis in Figure 8 illustrates how the new science building may affect views from the parking lot at Keopuolani Park nearest MCC (Photo A) and from the intersection of Wahine Pi‘o Avenue with Ka‘ahumanu Avenue (Photo B).

#### 4.7 Cumulative Impacts

Cumulative impacts on environmental resources result from the incremental effects of development and other actions when evaluated in conjunction with government and private, past, present and reasonable foreseeable future actions. The reasonably foreseeable actions that were considered in the analysis of cumulative impacts include:

- **Swap Meet Improvements.** Maui Exposition, Inc. proposes to establish the Maui Swap Meet on the existing retention basin on the MCC campus, approximately 1,200 feet northeast from the proposed MCC science building. Proposed improvements include: clearing, grading and grubbing approximately 4.5 acres; creating a berm for the retention basin; installing asphaltic concrete walkways and a service driveway within the basin; and installing a new 6-foot high chain link fence along the perimeter. According to the project’s Draft EA, a FONSI is anticipated for the project. The project’s Draft EA reported that the proposed changes would cause net increases in the 10-year and 50-year design storm runoff by 2.99 cfs and 3.63 cfs, respectively. However, because the retention basin will be regraded to increase storage



Maui Community College Science Building  
**Figure 8: Visual Analysis**  
Environmental Assessment

volume to sufficiently store the 3.63-cfs increase in runoff associated with this project, the Draft EA concludes that there would be no adverse impacts to downstream environments or to natural drainage patterns (Munekiyo & Hiraga 2008).

The swap meet Draft EA also analyzed traffic impacts. Because the swap meet would take place on Saturdays, peak hour analysis was conducted for mid-day on Saturday (i.e., would not coincide with peak MCC traffic hours).

- **Maui Family YMCA.** This project involves construction of a new two-story, 18,000-ft<sup>2</sup> addition to the existing Maui Family YMCA, located on Kanaloa Avenue, about 2,000 feet northwest from the proposed MCC science building. According to the project's Draft EA, a FONSI is anticipated for the project (Chris Hart & Partners, Inc. 2007).

The Draft EA included a traffic impact assessment, and studied the intersections of Kanaloa Avenue with Kahului Beach Road and with Ka'ahumanu Avenue. The traffic impact assessment did not recommend any mitigation for traffic impacts at the intersections studied.

- **MCC Long Range Development Plan (LRDP).** The MCC LRDP (November 2006) updates the college's 1990 master plan report and was prepared to serve as a guide for future development on the Kahului campus. It integrates the programmatic and institutional goals of MCC with the space needs of target student populations to create a physical plan for the long-term growth of the campus. Program planning in the LRDP was based on space requirements for a long-term design enrollment of 5,000 FTE students. The LRDP analysis indicated a total projected indoor space requirement of nearly 690,000 assignable square feet for 5,000 FTE. The LRDP did not identify a buildout date for the development of the campus to meet the 5,000 FTE enrollment requirements due to uncertainties in project funding. The LRDP included a preliminary traffic evaluation to assess additional traffic demand generated by the ultimate MCC development. The evaluation considered the overall magnitude of campus-related traffic and did not reflect conditions at specific intersections. The analysis found that at 5,000 FTE, the morning ingress/egress and afternoon ingress traffic would be about twice the 2003 levels, while the afternoon egress traffic would be about three times 2003 levels. The LRDP includes recommendations for on- and off-site roadway and intersection improvements to mitigate traffic impacts associated with the MCC ultimate plan, and recommends that a formal traffic impact analysis report be prepared when there is a substantial increase in student population to determine the validity and timing of roadway improvements identified in the Plan.

The proposed action, collectively with future private and government actions planned in the area, would not have a significant cumulative impact on the resource areas analyzed. The proposed action is expected to have minor incremental effects on topography, soils, surface and ground water, natural hazards, air quality, noise, biological resources, cultural resources, potable water, wastewater, storm drainage, electrical power, police and fire protection, socio-economic resources, and visual resources, when considered collectively with the foreseeable actions listed. Considered cumulatively with these projects, the proposed action would not have a significant cumulative impact on traffic conditions, since new science building is not expected to increase student enrollment or vehicular traffic, but instead, address existing science facility inadequacies.

The proposed action would not cumulatively impact storm drainage, since both the science building project and the swap meet project include improvements to the storm drainage system that would accommodate the anticipated increases in storm runoff rates.

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## Chapter 5: CONFORMITY OF PROPOSED ACTION WITH EXISTING STATE AND COUNTY PLANS, POLICIES AND CONTROLS

This chapter describes the proposed action's conformity with various relevant State and County plans, policies and land use controls. Relevant objectives and policies are excerpted and presented below, along with a discussion of the project's conformance.

### 5.1 State

#### 5.1.1 Chapter 205, Hawai'i Revised Statutes (State Land Use Law)

The State Land Use Commission, under the authority of Chapter 205, HRS, classifies all land into four major land use districts: Urban, Rural, Agricultural, and Conservation. The project area is classified as part of the Urban district. The proposed use of the property is consistent with Urban district provisions.

#### 5.1.2 State Environmental Policy

Chapter 344, HRS, the State Environmental Policy, encourages productive and enjoyable harmony between people and their environment. The policy promotes efforts which will prevent or eliminate damage to the environment and biosphere, stimulate the health and welfare of humanity, and enrich the understanding of the ecological systems and natural resources to Hawai'i's people. The Environmental Policy seeks to conserve natural resources and enhance the quality of life for residents of Hawai'i. Expanding citizen participation in the decision making process is one of the guidelines specified in Chapter 344, HRS.

Discussion: The proposed facility will promote the understanding of the physical environment, including ecological systems and natural resources, by improving the post-secondary science instruction facilities available to the people of Maui. The sustainable features incorporated into the building's design will minimize use of the earth's natural resources. The entitlement process includes multiple opportunities for public input, in the EA, SMA use permit and height variance approval processes. Requests for input during the EA's pre-assessment consultation process were sent on January 28, 2008 to 30 Federal, State, and County agencies; public utilities; elected officials; and other potentially interested organizations. In addition, MCC held a public informational meeting on March 6, 2008 and invited owners of properties located within 500 feet of the subject tax parcel. In April 2008, copies of the Draft EA were sent to 29 Federal, State, and County agencies; public utilities; elected officials; and other potentially interested organizations.

### 5.2 County

#### 5.2.1 Maui General Plan

The Maui General Plan, a County-wide comprehensive general plan mandated by the Maui County Charter, was adopted in 1980. The Maui County General Plan is a "long-term,

comprehensive blueprint for the physical, economic, environmental development and cultural identity of the county. It comprises goals, policies, programs and actions which are based on an assessment of current and future needs and available resources. Once it has been adopted, the document becomes the principal tool for the County and its citizens to use when evaluating public and private projects and their impacts on land use, the economy, environment, infrastructure, and cultural resources” (Maui County 2008). A 1990 Update of the General Plan was adopted in 1991 and subsequently amended in 1993. Relevant General Plan objectives from the 1990 Update are discussed below.

## **Population, Land Use, the Environment and Cultural Resources**

### Land Use:

*Objective 2 - To use the land within the County for the social and economic benefit of all the County’s residents.*

Discussion: The new facility will allow MCC to increase access to Science Division classes by reducing conflicts in scheduling and allocating dedicated laboratory spaces for specific classes. The proposed action promotes MCC’s long range plan to improve post-secondary educational opportunities for the County’s residents. Higher educational attainment has been linked to higher earnings (U.S. Department of Labor 2008).

### Environment:

*Objective 1 - To preserve and protect the county’s unique and fragile environmental resources.*

Discussion: The proposed action will not impact any sensitive habitats or resources such as wetlands, endangered and protected species or their habitats, natural features, or scenic vistas. The new facility is not expected to introduce invasive species to the county’s ecosystems.

### Cultural Resources:

*Objective 1 – To preserve for present and future generations the opportunity to know and experience the arts, culture and history of Maui County.*

Discussion: As discussed in Section 4.3.1, there is low potential for encountering historic and cultural properties during construction of the proposed Science Building on the MCC campus, and no effects on archaeological resources or historic properties are anticipated from the proposed action. An archaeological monitor will be present during all ground altering activities that exceed a depth of 18 inches below the current ground surface to mitigate impacts to historic properties that may be identified in the subsurface deposit.

As discussed in Section 4.3.2, traditional Hawaiian rights related to gathering, access, or other customary activities within the project area or its vicinity will not be adversely affected, and no cultural practices or beliefs will be adversely affected. There are no Native Hawaiian (or other ethnic group’s) cultural practices customarily and traditionally exercised for subsistence, cultural and religious purposes that are known to occur on the project area. The scale of the new building will not affect regional wind patterns or

important *mauka-makai* views, including those from the ocean to the West Maui Mountains.

## **Housing and Urban Design**

### Urban Design:

*Objective 1 – To see that all developments are well designed and are in harmony with their surroundings.*

Discussion: The new facility is being designed as a “state of the art” building for science instruction and its exterior design features, including PV panels and wind turbines, reinforce the building’s function. Its overall massing is consistent with the newer buildings at the MCC Kahului Campus. Although the final roof elevation will require a height variance from Maui County, it is similar or lower in height to other MCC buildings and the facility will not adversely affect important scenic vistas from public roadways.

## **Transportation**

### Energy:

*Objective 1 – To make Maui County more self-sufficient in its need for non-renewable energy and more efficient in its use of energy.*

Discussion: By incorporating energy-saving technologies (described in Chapter 2), the new science building supports this objective. Furthermore, the project also directly supports Policy E of Objective 1: “Seek to incorporate energy-saving building design concepts and devices in government buildings.”

### Public Utilities and Facilities:

*Objective 2 – To improve the quality and availability of public facilities throughout Maui County.*

Discussion: By replacing an inadequate facility with a modern building designed to meet MCC’s science instruction requirements into the future, the project will improve both the access to the facility and quality of public education in the county.

## **Social Infrastructure**

### Education:

*Objective 1 – To provide Maui residents with continually improving quality educational opportunities which can help them better understand themselves and their surroundings and help them realize their ambitions.*

Discussion: The proposed action will construct modern facilities with which to provide improved science instruction--and access to that instruction--to the residents of Maui. Access to 2- and 4-year post-secondary degrees will allow Maui residents to achieve more of their educational goals without relocating off-island.

### 5.2.2 Wailuku-Kahului Community Plan

The project area is located in the Wailuku-Kahului Community Plan region, which is one of nine Community Plan region established in the County of Maui. Community Plans provide specific recommendations to address General Plan goals, objectives and policies. Both the General Plan and Community Plans guide government action and decision-making.

The Wailuku-Kahului region includes the civic and business centers of Wailuku and Kahului and the major sea and airports, and is the county's population center. The updated Wailuku-Kahului Community Plan was adopted by the County Council through Ordinance 3061 in May 2002.

The Wailuku-Kahului Community Plan designates the project area within the Public/Quasi-Public land use category. This category includes schools, libraries, fire/police stations, government buildings, public utilities, hospitals, churches, cemeteries, and community centers.

The Wailuku-Kahului Community Plan identifies major problems and opportunities for the region, which provide the underlying basis for the Plan's goals, objectives and policies. The following issues are applicable to the proposed science building project.

#### B. Identification of Major Problems and Opportunities of the Region

##### 1.a. AIRPORTS AND HARBOR FACILITIES AND OTHER PUBLIC FACILITIES.

"Finally, overcrowding in school facilities is a problem. Sites are needed for new or expanded school facilities."

Discussion: Although it is unclear whether the statement refers to primary, secondary or post-secondary education, the proposed project will provide a much-needed facility to serve Maui's residents on a site already identified for educational use.

##### 2.a. GEOGRAPHIC LOCATION AND INVENTORY OF DEVELOPED AND DEVELOPABLE LANDS.

"...These attributes create opportunities for commercial and industrial development; public mass transit; residential housing; regional recreational facilities; medical facilities; agricultural diversification; and higher education facilities."

Discussion: The proposed project will provide a much-needed facility to serve Maui's residents on a site already identified for educational use.

The following Wailuku-Kahului Community Plan goals, objectives and policies are applicable to the proposed action:

### ENVIRONMENT

**Goal:** A clean and attractive physical and natural environment in which man-made developments or alterations to the natural environment relate to sound environmental and ecological practices, and important scenic and open space resources are maintained for public use and enjoyment.

#### *Objectives and Policies:*

6. *Encourage the use of siltation basins and other erosion control features in the design of drainage systems.*
13. *Support energy conservation measures, including the use of solar heating and photovoltaic systems, in conjunction with urban uses.*
14. *Promote the planting and maintenance of trees and other landscape planting to enhance the streetscapes and the built environment.*

Discussion: The proposed action includes an underground storm water retention system as a long term BMP to improve the quality and quantity of the runoff entering the existing drainage system. As described in Section 2.2.2, the proposed action includes numerous energy conservation measures that include extensive use of solar PV panels. The project's landscaping plan includes the use of native plant species appropriate for the region.

### CULTURAL RESOURCES

**Goal:** Identification, protection, preservation, enhancement, and where appropriate, use of cultural practices and sites, historic sites and structures, and cultural landscapes and view planes that:

1. Provide a sense of history and define a sense of place for the Wailuku-Kahului region; and
2. Preserve and protect native Hawaiian rights and practices customarily and traditionally exercised for subsistence, cultural and religious purposes in accordance with Article XII, Section 7, of the Hawai'i State Constitution, and the Hawai'i Supreme Court's PASH opinion, 79 HAW. 425 (1995).

#### *Objectives and Policies:*

3. *Protect and preserve historic, cultural and archaeological sites and resources through on-going programs to identify and register important sites, and encourage their restoration. This shall include structures and elements that are a significant and functional part of Hawai'i's ethnic and cultural heritage.*

5. *Require development projects to identify all cultural resources located within the project area as part of initial project studies. Further, require that all proposed activity include recommendations to mitigate potential adverse impacts on cultural resources.*

Discussion: An archaeological inventory survey was conducted for the proposed project and found no archaeological, cultural or historic properties (See discussion in Section 3.3.1, with full report included in Appendix A). As discussed in Section 4.3.2, the project will not adversely affect traditional Hawaiian rights related to gathering, access, or other customary activities within the project area or its vicinity, or any cultural practices or beliefs.

## EDUCATION

### *Objectives and Policies:*

6. *Support efforts to expand the Maui Community College facilities and incorporate desired elements of Hawaiian architectural design.*

Discussion: This project further implements the MCC Long Range Development Plan (2007), which identifies a new science building in the location of the proposed new facility. As described in Section 2.2.2, the overall appearance of the building will reflect a “state of the art” science education facility, while also incorporating design features and construction materials in keeping with the facilities most recently constructed at the campus.

## DRAINAGE

### *Objectives and Policies:*

1. *Establish a storm drain improvement program to alleviate existing problems; implement a continuing maintenance program, and ensure that improvements to the system will meet growth requirements. This addresses safety and property loss concerns as well as the need for comprehensive flood control planning.*
  - a. *Design drainage systems that protect coastal water quality by incorporating best management practices to remove pollutants from runoff. Construct and maintain, as needed, sediment retention basins and other best management practices to remove sediments and other pollutants from runoff.*
4. *Ensure that storm water run-off and siltation from proposed development will not adversely affect the marine environment and nearshore and offshore water quality. Minimize the increase in discharge of storm water runoff to coastal waters by preserving flood storage capacity in low-lying areas, and encouraging infiltration of runoff.*

Discussion: As described in Section 2.2.4, the proposed storm drainage system includes both infiltration into the ground and an underground retention system to reduce potential impacts to marine water quality.

## URBAN DESIGN

**Goal:** An attractive and functionally integrated urban environment that enhances neighborhood character, promotes quality design, defines a unified landscape planting and beautification theme along major public roads and highways, watercourses and at major public facilities, and recognizes the historic importance and traditions of the region.

### *Objectives and Policies for the Wailuku-Kahului Region in General:*

11. *Use native Hawaiian plants for landscape planting in public projects to the extent practicable.*
16. *encourage the review of architectural and landscape architectural plans for major government projects by the County's Urban Design Review Board.*

### *Objectives and Policies for Kahului:*

4. *Landscape Character.*
  - a. *Open parking areas should be landscaped to provide visual screening and shade.*

**Discussion:** The project's landscape plan includes numerous native plant species, in accordance with MCC's LRDP guidelines. The project will be reviewed by the County's Urban Design Review Board. The new parking lot will include shade trees to meet County requirements.

### 5.2.3 County Zoning

The project area is located in an area zoned by the County of Maui as R-2 Residential. The Residential district is established to provide for harmonious residential neighborhood without the detraction of commercial and industrial activities. Permitted uses include single-family dwellings; greenhouses, flower and truck gardens and nurseries; parks and playgrounds; schools, including elementary, intermediate; buildings or premises used by the federal, State, or county governments for public purposes; day care nurseries, kindergartens, and child care services; and certain types of bed and breakfast homes. The height limit within the R-2 Residential district is 30 feet, with structures limited to two stories.

The new science building is a permitted use under the R-2 zoning and MCC has requested a height variance from the Maui County Board of Variances and Appeals to construct the new science building. The final maximum building envelope height is approximately 55 ft and 9 in, which exceeds the height limit by 25 ft and 9 in. The final building envelope height includes the new building (45 ft 4 in at its highest structural point), wind turbines (that extend approximately 8 ft above building's highest structural point), and a 2-foot, 5-inch difference between the lowest point of existing grade within the building footprint (elevation 39.1 ft) and the finished floor elevation (elevation 41.5 ft).

#### 5.2.4 Special Management Area

The proposed project is located within the County of Maui's Special Management Area and will require an SMA use permit. Pursuant to Chapter 205A, HRS (Sections 205A-2 HRS and 205A-26 HRS, as amended), and the Rules and Regulations of the Maui County Planning Commission (Sections 12-202-10 and 12-202-11), projects located within the SMA are evaluated with respect to SMA objectives, policies and guidelines. This section evaluates the project with respect to applicable coastal zone management considerations set forth in Chapter 205A, HRS and the Rules and Regulations of the Planning Commission. An SMA use permit application was submitted to the County of Maui in April 2008.

##### 1. Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

Policies:

- (A) Improve coordination and funding of coastal recreational planning and management; and
- (B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:
  - (i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
  - (ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;
  - (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
  - (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
  - (v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;
  - (vi) Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

- (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and
- (viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of Section 46-6, HRS.

Discussion: The proposed action will not impact public coastal recreational opportunities. The project site is located about 1,700 feet inland from the marine waters of Kahului Harbor. Storm water runoff will be subject to percolation in the intervening land area as well as retained in an underground retention basin as a BMP before being discharged into the existing storm drainage system.

## 2. Historic Resources

Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

### Policies:

- (A) Identify and analyze significant archaeological resources;
- (B) Maximize information retention through preservation of remains and artifacts or salvage operations; and
- (C) Support state goals for protection, restoration, interpretation, and display of historic resources.

Discussion: An archaeological inventory survey conducted for the proposed action did not identify any historic or cultural materials. Nonetheless, an archaeological monitor will be present during all ground altering activities that exceed a depth of 18 inches below the current ground surface to mitigate impacts to historic properties that may be identified in the subsurface deposit. A formal monitoring plan will be prepared and submitted for review and acceptance to the DLNR SHPD prior to application for building permits.

## 3. Scenic and Open Space Resources

Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

- (A) Identify valued scenic resources in the coastal zone management area;
- (B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
- (C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and
- (D) Encourage those developments that are not coastal dependent to locate in inland areas.

Discussion: The proposed project will not affect views identified as “distinctive” in County planning documents (Maui County 1990). Grading for the project’s construction is expected to be shallow and minimal, due to the relatively flat conditions at the project area. The proposed action will not affect shoreline open space and scenic resources. Although the project area is in the SMA and is not a coastal dependent use, it is approximately 1,700 from the nearest coastline.

4. Coastal Ecosystems

Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

- (A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;
- (B) Improve the technical basis for natural resource management;
- (C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;
- (D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and
- (E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

Discussion: A site-specific BMP plan will be developed and implemented by the construction contractor to minimize erosion and surface water impacts during the

construction period. The project will also comply with conditions of its NPDES permit. Project construction will comply with all NPDES permit requirements. Storm water runoff generated at the project site will both percolate into the ground as well as be retained in an underground retention basin as a BMP before being discharged into the existing storm drainage system.

## 5. Economic Uses

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

- (A) Concentrate coastal dependent development in appropriate areas;
- (B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and
- (C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
  - (i) Use of presently designated locations is not feasible;
  - (ii) Adverse environmental effects are minimized; and
  - (iii) The development is important to the State's economy.

Discussion: As the island's only institution of higher education in Maui County, MCC serves a valuable role in preparing the county's residents to contribute to the State's economy through providing training in health care, culinary arts, vocational education, information technology, and other fields, and also allowing access to UH's four-year and graduate degree programs. Providing a state-of-the art science instruction facility will improve the quality of post-secondary education available to Maui's residents. As described in Chapter 4, the anticipated environmental impacts will not be significant, and most will be short-term and temporary in nature.

## 6. Coastal Hazards

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.

Policies:

- (A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;
- (B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;
- (C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
- (D) Prevent coastal flooding from inland projects.

Discussion: The project area is not in an area identified as a tsunami evacuation zone or flood zone. It is located about 1,700 feet from the nearest coastline and not adjacent to any streams. A foundation investigation of soil conditions at the project site concluded that, from a geotechnical viewpoint, the site can generally be developed as planned (Hirata & Associates 2008). The exploratory fieldwork and laboratory testing associated with the foundation investigation did not indicate any elevated risk of subsidence or erosion that may pose a hazard to life and/or property when the new building is constructed. BMPs will be implemented during construction to minimize soil loss. Low-emitting adhesives and sealants, and paints and coatings meeting environmental certification standards will be used in the proposed science building. The operation of the emergency generator will comply with the applicable State DOH air quality permit conditions. An underground retention basin will capture a portion of the site's storm water runoff and serve to reduce nonpoint source pollution that ultimately enters the receiving waters.

7. Managing Development

Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Policies:

- (A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;
- (B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and
- (C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Discussion: The proposed action is subject to compliance with HRS Chapter 343, and this EA has been prepared to meet the requirements of the State environmental law. Pre-assessment early consultation letters requesting input were sent to 31 agencies, organizations, public officials, and potentially interested parties (see Chapter 10). An SMA use permit application and a height variance application have been submitted for the project. In addition to the required public notifications associated with the SMA permit and height variance that were/will be published and/or mailed, an informational meeting on the project was held on the MCC campus on March 6, 2008. Notices for this meeting were mailed to owners of properties within a 500-ft radius of the subject Tax Map parcel (3-8-007:040). The Draft EA was distributed for review and comment to 21 agencies, organizations, public officials, and potentially interested parties (see Chapter 10).

## 8. Public Participation

Objective: Stimulate public awareness, education, and participation in coastal management.

Policies:

- (A) Promote public involvement in coastal zone management processes;
- (B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and
- (C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Discussion: See #7 Managing Development, above.

## 9. Beach Protection

Objective: Protect beaches for public use and recreation.

Policies:

- (A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;
- (B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

- (C) Minimize the construction of public erosion-protection structures seaward of the shoreline.

Discussion: The proposed action will not affect public use of or recreational activities at Maui beaches. The construction will take place well inland of the shoreline setback.

#### 10. Marine Resources

Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

- (A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;
- (B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;
- (C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;
- (D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and
- (E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Discussion: The proposed science building includes a laboratory and demonstration space dedicated to the marine science program and will improve science education available on Maui.

In addition to the foregoing objectives and policies, SMA permit review guidelines are provided by Section 205A-26, HRS for the authorities reviewing developments proposed in the SMA, including:

- (1) All development in the special management area shall be subject to reasonable terms and conditions set by the authority in order to ensure:
  - (A) Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles;
  - (B) Adequate and properly located public recreation areas and wildlife preserves are reserved;

- (C) Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon special management area resources; and
  - (D) Alterations to existing land forms and vegetation, except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, wind damage, storm surge, landslides, erosion, siltation, or failure in the event of earthquake.
- (2) No development shall be approved unless the authority has first found:
- (A) That the development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interests. Such adverse effects shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect, and the elimination of planning options;
  - (B) That the development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature; and
  - (C) That the development is consistent with the county general plan and zoning. Such a finding of consistency does not preclude concurrent processing where a general plan or zoning amendment may also be required.

Discussion: The proposed action will not adversely affect beaches, recreation areas, natural preserves, public recreation areas, or wildlife preserves. Collection, transfer and disposition of solid and liquid waste generated at the new science building will comply with Federal, State and County requirements. Alterations to existing land forms and vegetation will not have a significant effect on water resources and scenic and recreational amenities. The project area is not in a flood hazard zone or in an area prone wind damage, storm surge, landslides, erosion, or siltation. The project will be designed to meet the Maui County building code, including seismic risk.

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## Chapter 6: ALTERNATIVES CONSIDERED

There were two alternatives to the proposed action considered: (1) no action and (2) construction at an alternate location. They are discussed below.

### 6.1 No Action

Under the “no action” alternative, the existing conditions on the subject property would continue—i.e., gravel, overflow parking area, unused volleyball court, and open grassed area. Science instruction would continue to take place in an undersized, outdated facility and MCC would not be able to improve the quality of or access to science education for the people of Maui. For these reasons, the “no action” alternative was determined unacceptable.

### 6.2 Alternate Location

Under this alternative, the new science building would be constructed elsewhere within the Kahului campus, such as nearer to the intersection of Wahine Pi‘o Avenue and Ka‘ahumanu Avenue. However, the MCC long-range development plan, which sets out the college’s long-term, coordinated facility development strategy, identifies this area for future vocational technology instruction and parking. Because MCC has identified the science building as a priority near-term project, the proposed project site allows it to be constructed without impacting existing facilities and locating it in a vacant area that is still close to existing facilities.

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## Chapter 7: IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Resources that are committed irreversibly or irretrievably are those that cannot be recovered if the proposed project is implemented. The proposed action would involve two types of resources: (1) general industrial resources including capital, labor, fuels, energy, and construction equipment; and (2) project-specific resources such as natural resources and land use at the affected site. Construction of the new science building and ancillary facilities (e.g., telescope room, parking area) will utilize fiscal resources, labor, construction equipment and materials.

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## Chapter 8: DETERMINATION AND SUPPORTING RATIONALE

### 8.1 Determination

As described in Section 1.5, it is concluded the direct, indirect, and cumulative effects of the proposed action will not have a significant adverse effect on the environment, and therefore, an EIS will not be required. In accordance with Chapter 343, HRS and Section 11-200, Hawai'i Administrative Rules, the University of Hawai'i determined that a FONSI be issued for the proposed action.

### 8.2 Findings and Reasons Supporting the Determination

In determining whether an action may have a significant impact on the environment, the applicant or agency must consider all phases of the project, its expected primary and secondary consequences, its cumulative impact with other projects, and its short and long-term effects. The negative determination was based on review and analysis of the 13 significance criteria specified in Section 11-200-12, HAR. An action shall be determined to have a significant effect on the environment if it meets any of the following criteria cited below. A discussion of the proposed action in relationship to these criteria is provided below.

**1. *Involves an irrevocable commitment or loss of or destruction of natural or cultural resources;***

The project area does not support any known Federal or State-protected natural or cultural resource and the proposed action will not irrevocably commit or destroy such resources during project construction or operation. An archaeological inventory survey conducted at the project site did not reveal any cultural remains concluded that there is low potential for encountering historic and cultural properties during construction of the proposed science building on the MCC campus, and no effects on archaeological resources or historic properties are anticipated from the proposed action.

**2. *Curtails the range of beneficial uses of the environment;***

The proposed action carries out additional components of MCC's LRDP, which describes the orderly development of its Kahului Campus to meet existing and future requirements. The construction of the new science building will provide a beneficial use, to the citizens of the state, and the residents of Maui in particular, by increasing access to public educational programs. Construction and operation of the new facilities would be performed in accordance with Federal, State and County regulations, thereby minimizing potential impacts to the air and water quality and ambient noise levels.

**3. *Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;***

The proposed action is consistent with the State's long-term environmental policies, and the policies and guidelines specified in Chapter 344, HRS, as demonstrated by the discussion in Section 5.1.2.

**4. *Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;***

The proposed action would have direct and indirect economic benefits to the State and County through the flow of construction spending and employment incomes through the economy. The project would also improve post-secondary public educational services to Maui residents. As discussed in Section 4.3.2, the proposed action is not expected to adversely affect traditional Hawaiian rights related to gathering, access, or other customary activities within the project area or its vicinity or any cultural practices or beliefs. As discussed in Section 4.3.2, traditional Hawaiian rights related to gathering, access, or other customary activities within the project area or its vicinity will not be adversely affected, and no cultural practices or beliefs will be adversely affected. There are no Native Hawaiian (or other ethnic group's) cultural practices customarily and traditionally exercised for subsistence, cultural and religious purposes that are known to occur on the project area. The scale of the new building will not affect regional wind patterns or important *mauka-makai* views, including those from the ocean to the West Maui Mountains.

**5. *Substantially affects public health;***

The proposed action would not substantially affect public health. There would be some typical short-term construction-related impacts (e.g., noise and air quality) in the area, but these would be temporary and comply with State and County regulations. Standard construction best management practices would be used to minimize the temporary impacts. Though none are known, if project area soils are found to contain hazardous or regulated materials, the necessary abatement would be conducted prior to construction in accordance with applicable Federal and State regulations to minimize potential impacts to human health and the environment. The quantities and types of hazardous materials used, stored and disposed of will be generally the same under the proposed action as under existing conditions (i.e., with or without the new science building). Therefore, no adverse impacts are anticipated, as handling, storage and disposal of these materials and wastes will comply with applicable County, State and Federal requirements.

**6. *Involves substantial secondary impact, such as population changes or effects on public facilities;***

The proposed action would not result in island-wide population growth. While MCC expects to experience enrollment increases over current levels in future years, the proposed science building in itself is not intended to result in significant increases in the student population. Since the project area is located in an existing urban area served by public utilities and infrastructure, no significant impacts to public facilities are expected.

**7. *Involves a substantial degradation of environmental quality;***

The proposed action would not substantially degrade environmental quality. Long-term impacts to air and water quality, noise levels, and natural resources would be minimal. The use of standard construction and erosion control best management practices will minimize the anticipated construction-related short-term impacts.

**8. *Is individually limited and cumulatively has considerable effect upon the environment or involves a commitment for larger actions;***

The proposed action, collectively with known future private and government actions planned in the vicinity, would not have a significant cumulative impact on the resource areas analyzed. Since the proposed action would occur on lands in urban use, it is expected to have minor incremental effects on topography, soils, surface and ground water, natural hazards, climate and air quality, noise, biological resources, archaeological and cultural resources, potable water, wastewater, storm drainage, electrical power, solid and hazardous waste, police and fire protection, socio-economic factors, traffic, parking, and visual resources, when considered collectively with the known foreseeable actions.

**9. *Substantially affects a rare, threatened, or endangered species, or its habitat;***

No threatened, endangered or candidate listed bird, mammal, or plant species protected by Federal and State regulations would be impacted by the proposed action. There are no significant biological resources, including habitat for protected species, in the project vicinity.

**10. *Detrimentially affects air or water quality or ambient noise levels;***

The proposed action would not substantially affect air or water quality or ambient noise levels. The use of best management practices would minimize construction-related impacts, and the project would comply with applicable Federal, State and County regulations and standards. The replacement of permeable surfaces with impervious surfaces would increase the rate of storm water runoff by 1.3 cfs; however, most of the runoff will be directed to an underground retention system that will remove pollutants at levels that meet LEED requirements, with the balance (3.3 cfs) to sheet flow from the site and percolate into the ground. Surface water quality and air quality would not be significantly impacted. Increases in ambient noise that may result from the minor increase in traffic is not expected to impact noise sensitive receptors.

**11. *Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a floodplain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;***

The proposed action is not located within an environmentally sensitive area.

**12. *Substantially affects scenic vistas and viewplanes identified in County or State plans or studies;***

The proposed action would not obstruct or affect scenic vistas and viewplanes identified in County or State plans or studies.

**13. *Requires substantial energy consumption.***

The proposed action will require additional energy consumption; however, the facility's total electrical power demand will be significantly offset by the production of electrical power on-site through solar PV panels and other energy-saving technologies being designed within the building.

## Chapter 9: REFERENCES

- Chris Hart & Partners, Inc. Application for Special Management Area Use Permit for Proposed Expansion of the Maui Family YMCA. August 2007.
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## Chapter 10: PARTIES CONSULTED DURING PREPARATION OF THE EA

### 10.1 Parties Consulted During the Preparation of the Draft EA

An informational letter was sent on January 28, 2008 to 31 agencies and organizations (listed below) to solicit comments on the proposed action. Substantive comments received are to be addressed in the DEA. A total of 11 agencies and organizations responded in writing. The parties who responded in writing are identified by an asterisk (\*) and their letters and the corresponding responses are included in Appendix B.1.

#### Federal Agencies

U.S. Department of Agriculture, Natural Resources Conservation Service  
U.S. Army Engineer District, Honolulu

#### State of Hawai'i Agencies

Office of Environmental Quality Control  
\*Department of Accounting and General Services  
\*Department of Land and Natural Resources (DLNR) Board of Land and Natural Resources  
DLNR, Historic Preservation Division  
Department of Business, Economic Development, Tourism  
DBEDT, Office of Planning  
Department of Health Environmental Planning Office  
\*Office of Hawaiian Affairs  
\*Department of Transportation (Director and Maui District Office)  
Department of Defense  
UH-Environmental Center

#### County Agencies

\*Department of Fire Control  
\*Department of Parks and Recreation  
Department of Planning  
\*Police Department  
\*Department of Public Works  
Department of Environmental Management  
\*Department of Water Supply  
Civil Defense Agency

#### Utility Companies

\*Hawaiian Telcom  
\*Maui Electric Company

#### Citizens Groups / Organizations / Other

Harbor Lights Condominium Association of Apartment Owners  
Maui Arts and Cultural Center  
Queen Ka'ahumanu Shopping Center

### Elected Officials

State Senator Shan S. Tsutsui  
State Representative Joseph Souki  
Maui County Mayor Charmaine Tavares  
County Council Chairperson G. Riki Hokama

In addition, on March 6, 2008, an informational meeting was held on the Maui Community College campus to present information on the proposed action and to obtain comments and concerns. All owners of properties located within a 500-ft radius of the project's property boundary were invited to this meeting (a total of 278 addressees). Ten individuals signed an attendance sheet. No substantive issues and concerns were raised at the meeting.

## 10.2 Parties Consulted During the Preparation of the Final EA

The Draft EA was distributed for review and comment in April and May 2008 to 29 agencies, organizations, public officials, and potentially interested parties, listed below (either directly by the EA preparer or via the Maui Planning Department through the SMA use permit application process). A total of 10 agencies and organizations responded to the Draft EA in writing. The parties who responded in writing are identified by an asterisk (\*) and their letters and the corresponding responses are included in Appendix B.2, unless otherwise noted.

### Federal Agencies

\*U.S. Department of Agriculture, Natural Resources Conservation Service  
U.S. Army Engineer District, Honolulu

### State of Hawai'i Agencies

Department of Accounting and General Services (Survey Division)  
\*Office of Environmental Quality Control  
\*Department of Land and Natural Resources (DLNR) Board of Land and Natural Resources (including Maui Office)  
\*DLNR (Historic Preservation Division) – (Note: Correspondence included in Appendix A)  
Department of Business, Economic Development, Tourism (Energy Resources & Technology Division)  
DBEDT, Office of Planning  
\*Department of Health (Environmental Planning Office and Maui District Health Office)  
\*Office of Hawaiian Affairs  
\*Department of Transportation (Director, Statewide Planning Office, and Maui District Office)  
\*UH-Environmental Center

### County Agencies

Department of Parks and Recreation  
Department of Planning  
Fire Department  
Police Department  
Department of Public Works  
\*Department of Environmental Management

Department of Water Supply

Utility Companies

Hawaiian Telcom

\*Maui Electric Company

Citizens Groups / Organizations / Other

Harbor Lights Condominium Association of Apartment Owners

Maui Arts and Cultural Center

Queen Ka'ahumanu Shopping Center

U.H. Sea Grant Extension Office

Elected Officials

State Senator Shan S. Tsutsui

State Representative Joseph Souki

Maui County Mayor Charmaine Tavares

County Council Chairperson G. Riki Hokama

**APPENDIX A**  
Archaeological Inventory Survey  
DLNR SHPD Correspondence

Pacific  
Legacy

Incorporated

CULTURAL  
RESOURCES  
CONSULTANTS

ARCHAEOLOGICAL INVENTORY SURVEY  
FOR THE  
PROPOSED NEW SCIENCE BUILDING  
AT  
MAUI COMMUNITY COLLEGE  
KAHULUI, MAUI

*Prepared By:*  
Pacific Legacy, Inc.



*Pacific Legacy: Exploring the past, informing the present, enriching the future.*

ARCHAEOLOGICAL INVENTORY SURVEY  
FOR THE  
PROPOSED NEW SCIENCE BUILDING  
AT  
MAUI COMMUNITY COLLEGE  
KAHULUI, MAUI

*Prepared by*

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*Prepared for*

Helber Hastert & Fee, Planners:  
733 Bishop Street, Suite 2590  
Honolulu, HI 96813

March 2008

Hawai'i  
Kailua, O'ahu  
Wailuku, Maui  
Hilo, Hawai'i

California  
Santa Cruz  
Berkeley  
Cameron Park  
Bishop

**ABSTRACT**

Pacific Legacy, Inc., at the request of Helber, Hastert and Fee, conducted an archaeological inventory survey for the proposed Science Building on the Maui Community College campus, Kahului, Maui, Hawai'i. The campus is located within the Special Management Area (SMA). The current investigations are conducted to fulfill the SMA requirements as part of the Environmental Assessment (EA) application procedures. The proposed project area is currently utilized as an auxiliary parking area.

The subject parcel is located in the remnant of a former dune environment, and is adjacent to areas known to contain historic properties and subsurface burials. The wider campus is in immediate proximity to Kahului Bay, an area that would have provided abundant resources during the prehistoric period.

Archival information was examined to determine the historic background of the *ʻili* of Kalua, of which the proposed project area is a part. No Land Commission Awards were awarded in the immediate area. The area was further used during the more recent historic period for the 18<sup>th</sup> Service Battalion Camp of the USMC during WWII. Remnants of the camp were extant as late as the 1970s, and were identified during previous archaeological inventory surveys on the campus (outside of the current project area). Surface remnants of the camp were removed during construction of the existing campus.

Subsurface testing in the project area revealed a basal dune deposit, overlaid by fill material. No historic cultural materials were identified in the homogenous sand deposit. Recent subsurface irrigation (PVC) bisects the project area, and is currently in use.

Although no historic properties were identified, the deposit on the subject parcel consists primarily of sand (beneath the fill layer). Thus, it is recommended that during excavation concomitant with the construction activities of the Science building, an archaeological monitor be present. Should historic properties be identified during this work, appropriate mitigation will be determined in consultation with professional staff at the State Historic Preservation Division, DLNR.

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Frontispiece Overview of Project Area (view to west):



**1.0 INTRODUCTION**

Pacific Legacy, Inc., under contract to Helber, Hastert & Fee, Planners, conducted an archaeological inventory survey of a 40,095 square foot area within the University of Hawai`i/ Maui Community College Campus. A new science building is proposed for the area in question. As part of the Special Management Area (SMA) permit application, an Environmental Assessment is required, of which the archaeological inventory survey comprises a component. The project area is within Kahului Town, Wailuku Ahupua`a, Wailuku District, Island of Maui [TMK (2) 3-8-007: 040].

**1.1 ENVIRONMENTAL SETTING**

The 40,095 square foot parcel is currently in use as auxiliary parking for the Maui Community College (MCC) Campus. It is approximately a kilometer to the southwest of Kahului Harbor (Figure 1). The project area is bounded on the north, south and southeast by existing Maui Community College Buildings, to the southwest by MCC tennis courts, and to the northwest by open space periodically used as a drive-in movie area. The access road on the northwest of the parcel egresses onto Wahine Pi`o Avenue, and provide ingress for vehicles accessing the auxiliary parking (Figure 1).

Soils in the project area and within the larger MCC campus parcel consist of Pulehu-Ewa-Jaucas beach derived soils of the old Kula series of lava flows (Foote 1972). These soils to the north and northwest of Wahine Pi`o Avenue represent remnants of the deep, well-drained dune soils for which central Maui is well known, and which have been excavated extensively for export as construction constituents. These soils are Aeolian sand with a fine to course textured subsoil (ibid.).

Considerable disturbance is evident in the area, from construction of the present MCC campus, disturbance during previous use of the area for military base camps during World War II, and from the deposition of material dredged and deposited during construction of Kahului Harbor. Low lying areas were subjected to infilling such that the general area provides a level construction base for future work on the campus.

Elevations vary between 5 and 15 feet above mean sea level. Backhoe trenching during previous archaeological investigation nearby identified ground water from about 1.5 to 3 meters below the surface (Frederickson and Frederickson 1992A).

Given the primary existing use of the parcel for auxiliary parking purposes, little vegetation exists on much of it. The parking area is covered with approximately 6 inches of gravel base course. Vegetation on the southwest portion of the parcel consists of cultivated grass, watered through an active irrigation system (Figure 2).





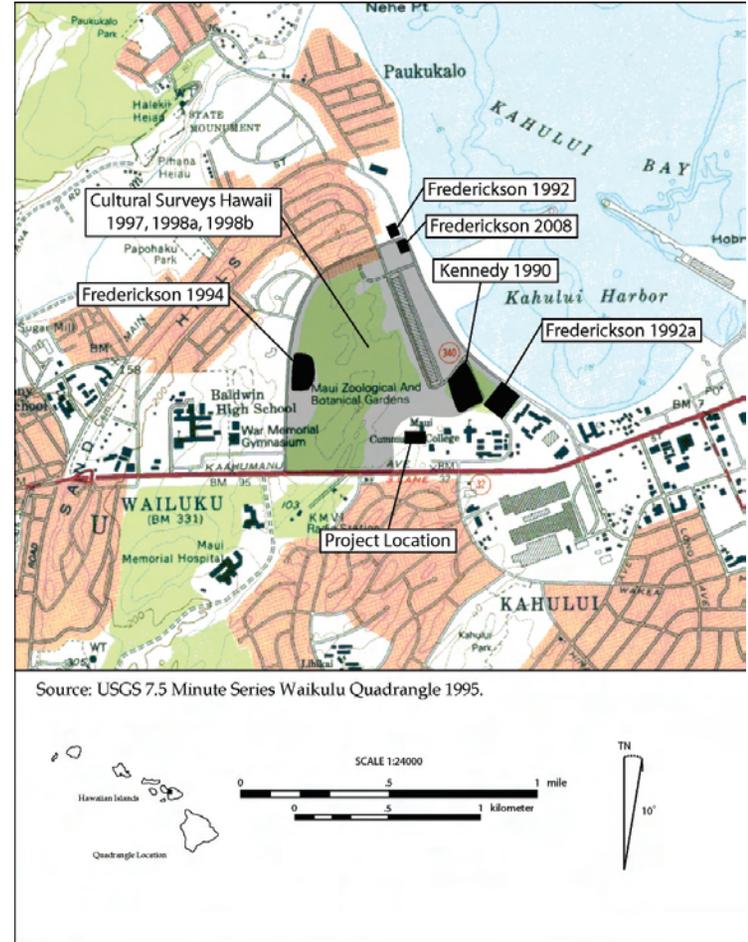
Figure 3-1  
Air Photo

Source: R. M. Lovell Corp. Aerial Photography  
Date: 2-05-03



**Figure 1. Aerial Photo Depicting Approximate Project Area within MCC Campus.**

Archaeological Inventory Survey  
Maui Community College  
Wailuku Ahupua'a, Wailuku District, Maui  
March 2008



Source: USGS 7.5 Minute Series Waikulu Quadrangle 1995.

Figure 2. Location of Project Area and Previous Archaeology in the Immediate Project Vicinity.

Archaeological Inventory Survey  
Maui Community College  
Wailuku Ahupua'a, Wailuku District, Maui  
March 2008





Figure 3. Photographic Overview of Project Area (view to the west).

## 2.0 ARCHAEOLOGICAL METHODS

### 2.1 ARCHIVAL RESEARCH

Archival information was collected from a number of primary sources housed at the State Historic Preservation Division (SHPD) library, the Wailuku Public Library, Maui Community College Library, and the State Archives. Additional references held at the Pacific Legacy, Inc. Wailuku Office were also utilized. Research consisted of acquiring documentation for Land Commission Awards testimonies, reports of previous archaeological investigations in the general area, and various other accounts held in repository at the institutions cited above.

### 2.2 ARCHAEOLOGICAL TESTING

Subsurface testing was conducted throughout the proposed science building and surrounding footprint. Locations of trenches were determined based on active infrastructure currently in the area. Irrigation lines and at least one pressurized line cross the project area (Figure 4).

Trenches measured five meters in length, and a back hoe width (.5 m). All trenches were excavated to depths between 110 and 155 cmbs. Excavations were terminated at such point that the trench either a) exceeded depths allowable by OSHA, or b) exhibited sterile natural basal sand deposits for depths of one meter or more. Following trench excavations, profiles were prepared for each trench, depicting either the east wall (for trenches oriented north/south) or the south wall (for trenches oriented east/west. The west wall was profiled for Trenches 4 and 5 and the north wall was profiled for Trench 12, as they exhibited the variable stratigraphy with greater clarity. Subsurface sediment samples were collected only in cases where cultural use was represented.

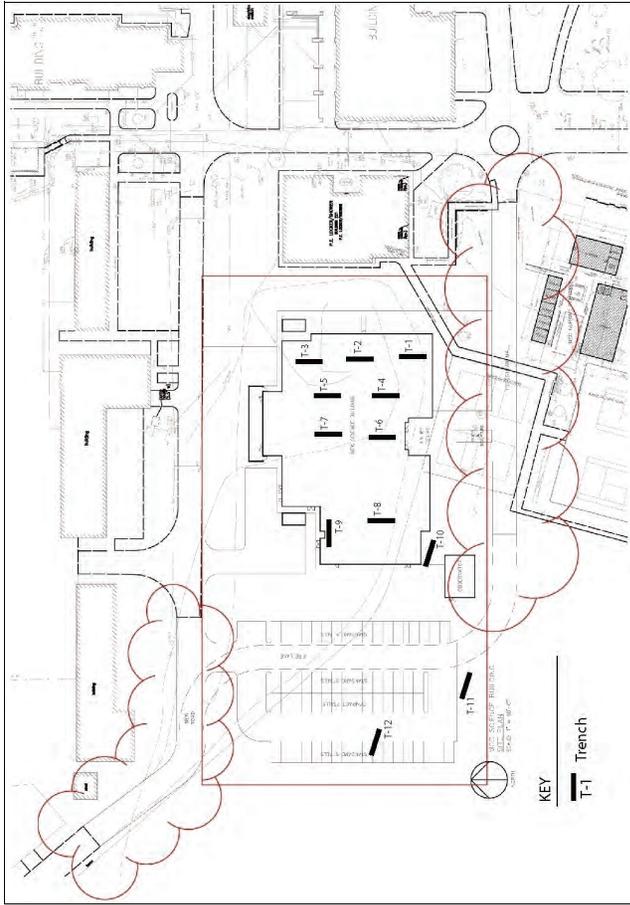


Figure 4. Trench Locations within the Project Area.

Archaeological Inventory Survey  
 Maui Community College  
 Wailuku Ahupua`a, Wailuku District, Maui  
 March 2008



### 3.0 HISTORIC BACKGROUND

Archaeological and historic evidence substantiates the significance of *Na Wai Eha* (the four streams), the area spanning Waihe`e south to Waikapu. Handy and Handy (1972) document the four great valleys that comprise the eastern slopes of West Maui, as the site of “the largest continuous area of wet-taro cultivation in the islands.” The valleys which cut deep into the mountain slopes provide the eastern side of the West Maui Mountains with a tremendous watershed that, during the prehistoric and early historic era, fed contiguous taro fields. Wailuku stream, stretching from Lao Valley to the shoreline of Paukukalo, flows into Kahului Bay, to the north east of the project area.

Terraced *kalo* fields traditionally spread throughout the Lao Valley flow, extending both to the north and south of the stream on the plateau above the stream valley. The valley opens to approximately a ½ mile width at the base, evidencing numerous ancient meanders in the subsurface deposits of the valley. Extant *lo`i* walls (terraced pond fields) are still in evidence within the residential subdivisions dotting the valley floor today, many of which mirror the Land Commission Awards of the 1848 Mahele division. According to Handy and Handy (1972) Wailuku Town is constructed on old terrace sites, fed by *auwai* with water drawn from upstream. Many of these *auwai* were adapted for reuse when commercial agriculture was introduced. Aerial photos document the extent of these *lo`i kalo* which spread across the plains between Waihe`e, Wai`ehu, Wailuku and Waikapu, and remnants of the walls containing them remain.

Given the dramatic extent of viable agriculture during the traditional times, it is not surprising that a sizable population base would have resided in the area. Both Wailuku and the broader West Maui are associated with a number of *ali`i* suggesting the central nature of Wailuku as a political power.

Kahekili was the ruling chief over most of Maui when Captain Cook arrived in 1778, including the Wailuku district and *ahupua`a*. He resided in the Wailuku area (Kamakau 1992). Kalaniopu`u controlled the windward districts (Beaglehole 1967; Kuykendall 1967). Kamakau (1992) and Fornander (1996) document from native accounts that Hana, Kipahulu and Kaupo were under the control of Kalaniopu`u. On the sand hills just inland of the project area, a great battle between Kahekili and his warriors and Kalaniopu`u ensued. The battle occurred in about 1776 (Westervelt 1977), just prior to the arrival of Captain Cook. Kakanilua was the name of the sand hills just inland on which this battle was fought (ibid.) during which the dunes were reportedly littered with the bones of fallen warriors.

In 1790, the famous battle, Kepaniwai, or the “damming of the waters”, was fought between forces of Kahekili and Kamehameha I from the Big Island. Kamehameha’s forces landed offshore from the project area. The forces were reportedly evenly matched until western canons were used by Kamehameha (Kuykendall 1938). Following the battle of Kepaniwai, Maui was briefly under Kamehameha. In 1791, however, Kahekili and his half-brother Ka`eokulani (Kaua`i), along with the Kaua`i forces, reoccupied Maui (Abad 2000).

Archaeological Inventory Survey  
 Maui Community College  
 Wailuku Ahupua`a, Wailuku District, Maui  
 March 2008



In 1794, Kahekili died (Kuykendall 1938; Fornander 1996); his successor was Ka'eokulani. Subsequent battles on O'ahu resulted in Ka'eokulani's death, and Kalanikupule inherited all of the islands formerly under Kahekili. At Kalanikupule's death in battle with Kamehameha on O'ahu in 1795, Kamehameha once again gained control over Maui, ultimately resulting in the unification of the archipelago.

By 1800, contact between the western world and Hawai'i had resulted in several major changes. The first and foremost in terms of impact was the introduction of infectious diseases which had already begun to decimate the resolute people of the islands. The second was a by-product of the first; the introduction and acceptance of Christianity. Infectious venereal diseases, introduced at Captain Cook's first contact with the people of Kaua'i and O'ahu, moved down the archipelago, the results of which were evident when Captain Cook arrived on Maui in 1778 (Cook in Speakman 1978).

By the time the missionaries arrived in earnest, the population was ready to throw over their old Gods in favor of those that appeared to have greater power to protect against the onslaught of disease and death. The first missionary station in Wailuku was established in 1832, the census of which recorded a population of 2,256 in Wailuku *ahupua'a* (Schmitt 1973: 18). Clearly, given the extent of the agricultural grounds, the ability to support a much larger population was possible in this politically powerful *ahupua'a*. Eight years later in 1840, a second missionary census demonstrated continued decline with the population listed as 1,364. As demonstrated throughout the Pacific (Kirkendall 1998), this demographic collapse was historically invisible, as between 50% and 90% of populations were subjected to repeated episodes of introduced infectious diseases to which they had no immunity. The decline was especially pronounced in densely populated areas which were political and agricultural centers like Wailuku.

Kahului and Wailuku were also subjected to natural disasters such as the tsunami of 1837 and subsequent tidal waves (Armstrong 1973). With villages centered along the shore, individuals who were not able to make it to higher ground and their houses were swept away (*ibid.*).

By the time of the *Mahele*, the land division, Wailuku *ahupua'a* was determined to be Crown Land. The majority of the Land Commission Awards allotted to individuals for *kuleana* traditionally tended were located in areas most amenable to agriculture; either wet land taro, existing house lots, or dry land agricultural endeavors. These were to the north and west of the dune defining the confines of Iao Stream, as well as along Waikapu, Waihe'e and Wai'ehu Streams.

The area to the south and east of the major dune system ridge was awarded to Kuihelani (LCA 420) for a house and land (*Appendix A*). The present day Keopuolani Park is within this larger LCA. Kao'o petitioned for the land and his stone house, listing Owa as the name. It had been acquired by Kao'o from Auwae for a sum of forty dollars, with a \$5.00 annual tribute. Discussions between Kao'o and David Malo took place following the death of Auwae, in light of the purchase agreement, and Kawailepolepo delivered the exchange money to the *ali'i*. A little over three years passed after delivery of payment, and when questioned for occupying the land, the land was taken from Kao'o. It was the testimony as part of the Land Commission



process that provided Kao'o with the right to again take possession of the land. Boundaries were identified as Hali'iau and the stream on the north, Papohaku (a stone wall) and pond on the east, Kalua on the south, and a section of Hali'iau and Pe'epe'e on the west. Prior to his death Auwae discussed with David Malo the construction of a house for himself (Auwae) and Kao'o, construction of which began in 1831. Lumber, glass, nails, and paint were purchased by Auwae. Other elements necessary for construction, including *wahi* (wood), coral and stones were obtained from the land, the *konohiki*, and the people. The people assisted with carrying these things to the house site. David Malo was the witness for this transaction which was signed by Kao'o by H. Kuihelani. King Kamehameha, on December 1, 1834, agreed to the transfer of this land from the *ali'i*, via purchase by Owa for \$40.00, with \$5.00 annual tribute. Transcripts are presented in Appendix A.

Kalua, the land division indicated as the southern boundary of LCA 420, is the area within which the project is situated. Little information is available regarding this *'ili*, with the exception of the notation that Grant 7713 was awarded to Victoria Kamamalu (*Appendix A*; page 441). The Kalua tract is a large *'ili* extending from the sea inland across the sand hills south of Ka'ahumanu Ave and terminating at the present day High Street. The *'ili* is depicted in *Figure 5*. An 1882 map by Monsarrat. The land within this *'ili* consists largely of dune environment up to and across the sand hills (now a residential subdivision). On the south west side of the sand hills, numerous land commission awards subsumed within the larger *'ili*, represent vast taro patches. Six *Poolima* associated with Grant 7713 are also located among the taro patches. Aerial photos from the early 1900s depict the extent of these taro *lo'i*. Between the sand hills and the Spreckels ditch, bounded by Kalua Road and Ka'ohu Street, 22 LCA are located, as well as the six *poolima* mentioned above. Above the Spreckels ditch between the same bounds are another 15 LCA. *Mauka* or west of Kalua Road, between Kaho'okele and Ka'ohu Streets are four large LCA. Northwest of Ka'ohu Street, and bounded by LCA 420 to the north, the *'ili* of Kalua contains five other large Land Commission Awards. These abundant LCA would have been the breadbasket of the *'ili* of Kalua.

### 3.1 WAILUKU HISTORIC DISTRICT

The *'ili* of Kalua also contains a number of historic properties that are within the Wailuku Civic Center Historic District which spans the boundary between Kalua and Hali'iau *'ili*. The Wailuku Civic Center Historic District was nominated to the State Register in 1985 and the National Register of Historic Places in 1986. Several individual historic properties within the district also maintain status via the State Inventory of Historic Places. State Site 50-50-04-1616 contains several buildings representing various eras in the history of Wailuku Town. The following summary includes selected historic properties that are either within or in close proximity to the *'ili* of Kalua.

**Ka'ahumanu Church.** State Site 50-50-40-1500 is an historic church constructed in 1884. The original church, established by Edward Bailey, consisted of a simple grass hut. In 1876-1884, the existing church was constructed of stone, weatherboard and wood. It is Gothic in architectural style. It is also known as Wailuku Ekalesia Ho'ole Pope.



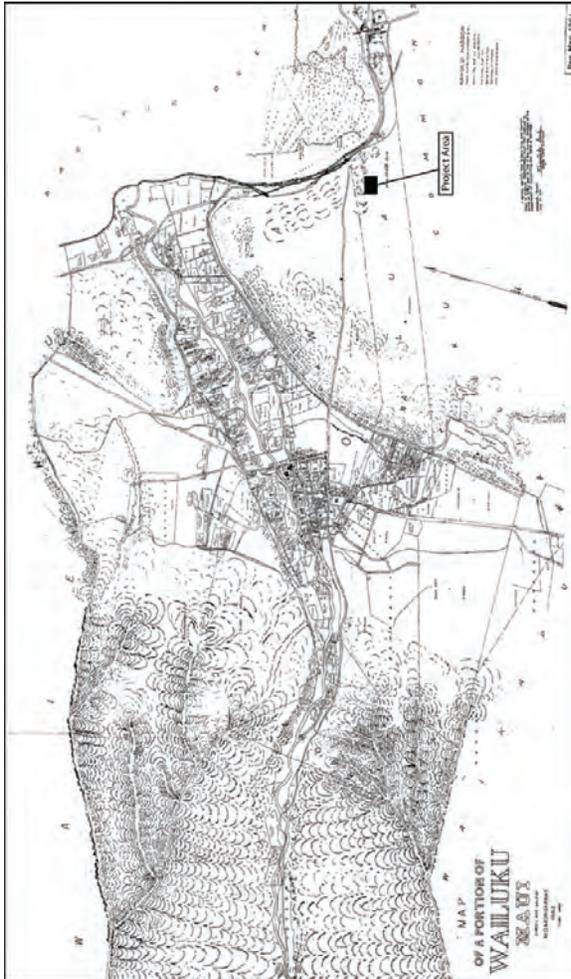


Figure 5. Monsarrat 1882 Map Showing the Location of the Project Area.

**Maui Jinsha Mission.** State Site 50-50-04-1606 was designed and built in 1925 by Ichitaro Takata and Seichi Tomokiya. It is wood, weatherboard, shingle and concrete construction in the Shinto style, built by master carpenters from Japan. A small shrine section was completed first. It was constructed in a traditional manner, without using nails or paint. Decorative elements are limited to carvings and painted plaques. The Jinsha was located in Kahului until 1953, when issues with alien property ownership necessitated its movement to the present Wailuku location. The shrine portion was transported intact and placed via a crane. The ceremonial hall was disassembled, and rebuilt piece by piece on the Wailuku site.

**Wailuku School.** Wailuku Elementary School was designed by architect Charles W. Dickey. It was built in 1904 on a former cow pasture. Constructed of stone by contractor F.H. Jordan, it replaced the former school which was a deteriorating wood structure. The stones are laid in a "random ashlar pattern with triangular stones interspersed in a zigzag pattern" (Duensing 1993: 60). The school was utilized as military headquarters during World War II.

A time capsule was buried at the time of construction, with Senator H.P. Baldwin laying the cornerstone. Within the capsule was an 1866 copy of the Hawaiian Gazette, a 1904 copy of the Maui news, both American and Hawaiian coins, Hawaiian stamps and other various artifacts from the era. In 2004, at the 100<sup>th</sup> anniversary celebration of the school, the capsule was open (Honolulu Advertiser April 21, 2004).

**Hale Ho`ike`ike (Old Bailey House, State Site 50-50-04-3000).** Built in 1833, the Bailey House served as the Mission station for the Wailuku Female Seminary for Girls until 1847. The school was constructed on the site of the Royal compound of the last ruling chief of Maui, Kahekili. Following the building's use as a seminary, Missionary Edward Bailey and his family occupied the house from 1847 until 1888. It currently serves as a museum serving the community of Maui, and displaying artifacts, missionary furnishings, native plants and paintings created by Edward Bailey.

**Wailuku Union Church.** The Wailuku Union Church was constructed in 1911, and is located at 327 High Street in Wailuku. W.R. Patterson was the designing architect, and Hugh Howell constructed it. Exterior material consists of locally quarried stone from Wailuku Sugar Company fields, and the structure exhibits a gabled, tile roof with closed eaves. A cross which was cut from a single stone by Japanese workmen is located atop the gable. Within the interior is situated a large Austin Company organ. The organ was shipped from Connecticut and placed in the church in memory of H.P. Baldwin (Duensing 1993).

**Kalana Pakui (State Site 50-50-04-1616).** The County (Annex) Office Building, historically known as Kalana Pakui, is situated at the corner of High and Ka`ohu Streets, within the `ili of Kalua. Mediterranean in style, it was designed by William d'Esmond, and constructed by E.C. Mellor in 1924. The structure exhibits a stucco exterior over a poured concrete foundation. The tile roof with hipped closed eaves further evidences the Mediterranean style. The porch is arched, inset and open, and centered on the front of the building. The U-shaped floor plan contributes to the Mediterranean feel of the symmetrical structure.

**Wailuku Courthouse (State Site 50-50-04-1616).** Designed by H.L. Kerr and build by Angus P. McDonald, this Beaux Arts Revival style building was constructed in 1907. The exterior is concrete block over a poured concrete foundation. This is the oldest existing structure within the Wailuku Civic Center Historic District.

**Wailuku Public Library (State Site 50-50-04-1616).** Designed by C.W. Dickey, the Wailuku Library is constructed of stone and stucco. The roof exhibits a double hip with flared eaves, and is tiled. It was built in 1928 by Robert Sano. A courtyard was originally located on the south side of the building, which was modified in the early 1950s to provide additional indoor space for the growing facility.

### 3.2 WORLD WAR II

World War II brought numerous changes to Maui, not the least of which was a long-term military presence. United States Military camps were located in various locations on Maui. The U.S. Navy Airwings were centered around Kahului and Pu'unene. These units were primarily concerned with training pilots for air combat. Camp Maui in the Haiku area housed the Fourth Division, United States Marine Corp (USMC). In 1944, the 18<sup>th</sup> Service Battalion of the USMC, attached to the Fourth Marine Division at Camp Maui, designated an area between the current Kanaloa Avenue, and the present Maui Community College campus, just inland of the Kahului Bay, as the location for the 18<sup>th</sup> Service Battalion Camp. Structures were located parallel to the present Kahului Beach Road and the shoreline, as well as to the railroad that ran along the coastline fronting the present Keopuolani Park, Maui Arts and Cultural Center (MACC) and the Maui Community College Campus. Aerial photos from 1972 (Figure 6) depict the still remaining Quonset huts that comprised a major part of the camp which were built by the U.S. Navy Seabees for storage and office space.

In 1947, the camp was turned over to the Kahului Railroad Company. The Quonset huts were used by the company until termination of the railroad system in 1965. At the time of the 1972 aerial photo, the huts were in use by private businesses. The Quonset huts were demolished in the 1980s, leaving few visible remnants of the World War II use of the area.

### 3.3 MAUI COMMUNITY COLLEGE

Immediately following WWII, construction on the expansion of the Maui Vocational School began (Fredericksen and Fredericksen 1992A). The campus was originally located in closer proximity to Kahului School, what is today the Adult Education Campus on the corner. The existing campus is constructed on land originally donated by Hawaiian Commercial and Sugar Company (HC&S). It was at this time that the auto, carpentry, and machine shops were constructed. An architectural/drafting program was added to the existing vocational programs which included dressmaking. The name was changed to Maui Technical School. Seven years later (1965) the Community College System was created under the umbrella of the University of Hawaii. General education programs were added via construction of new buildings, and the campus has continued to expand. The project area comprises a portion of the former playing

fields adjacent to the Physical Education Building and locker rooms, which are currently used for art programs. Based on the present topography of the portion of the project area proposed for the Science building, filling was conducted to level the area for use during physical education.



Figure 6. 1972 Aerial Photograph Showing Location of Project Area

#### 4.0 PREVIOUS ARCHAEOLOGY

Previous archaeological studies in the vicinity of the project area and oral history interviews with knowledgeable individuals conducted in the past have created a well rounded picture of the general use and settlement pattern of the coastal dune lands in which the project area is situated. The following details results of various levels of investigation in the project vicinity.

Evidence of pre-contact traditional Hawaiian use of the area has been identified during previous archaeological studies. As early as 1984, the presence of human skeletal remains has been acknowledged during archaeological work in adjacent areas. Earl Neller (1984) recovered the remains that had been inadvertently transported from an area south west of the current project area to Lahaina. In his efforts to reinter the remains in the area from which they originated, additional skeletal remains were located during excavation of the reinternment pit. Human skeletal remains have also been located more recently in the sand hills to the west and south of the project area within TMKs 3-8-007, 3-7-002 among others, as part of the Maui Lani Development Corporation expansion. No monitoring reports have been prepared to date detailing the findings. The closest find to the project area was located at TMK 3-7-002, within the Ka' ahumanu roadway corridor, immediately fronting the Ka' ahumanu Shopping center. A human burial was found during excavation of a coconut tree, bound within the root ball. No information is available on reinternment of this individual. In addition, a portion of the railroad bed and rails were identified within the highway right of way, beneath the existing surface. No report has been submitted to SHPD documenting these findings.

In 1990, Joseph Kennedy conducted subsurface testing as part of the construction of the Maui Arts and Cultural Center, on the corner of Wahine Pi'o and Kahului Beach Road, just north of the project area and across Wahine Pi'o. No historic properties were identified during the reconnaissance and subsurface testing (Kennedy, 1990).

The same year, Mr. Charles Keau conducted archaeological monitoring for the Parks Department. Efforts were underway to clear the future Keopuolani Central Park property (TMK 3-7-001:002) of metal and trash. Trenches were excavated for the disposal of the collected debris. No historic properties were identified during the burial of the trash. The trash represented both WWII use and subsequent use of the area.

On the same parcel as the current project, work was conducted in 1992 by Xamanek Researches. Inventory survey was conducted as part of an expansion of the parking lot and retention basin on the north east side of the Maui Community College campus. During the survey, poured concrete foundations and floors from the above mentioned WWII use for the 18<sup>th</sup> Service Battalion were identified. Twenty-two back hoe trenches excavated as part of this survey exhibited no evidence for pre-contact or historic use. At the time of the survey, remnants of the 18<sup>th</sup> Battalion presence in the area were not over 50 years of age, thus not considered historic properties. The inventory survey focused on the area to the north and east of the present paved parking area, bounded by Kahului Beach Road on the northeast, Harbor Lights apartment complex on the south east, the parking lot on the southwest, and Wahine Pi'o Road on the



northwest. Evidence of the previous episodes of disturbance, including the military construction, railroad construction, and campus construction were observed in the trenches. WWII features identified included three poured concrete foundations interpreted as latrines, an historic pond constructed of concrete and rounded stones, a poured concrete sidewalk as well as broken concrete slabs. Steel pipe remnants, discarded automobiles and other equipment were also found buried on the parcel. As indicated above, in 1992, any remnants of WWII use were not considered historic properties, as they had not reached the 50 year age demarcation. They were, however, documented during the survey.

Backhoe trenches exhibited a uniform stratigraphy throughout most of the area tested. Mixed fill deposits were identified in most of the trenches, the contents of which varied, between depths of 0.40 and 2.20 mbs. Matrix consisted of yellowish brown coarse grained sand, with occasional lenses of lithified sand. One trench also exhibited recently burned undergrowth in a sandy loam/humus matrix; others evidenced dredging material placed in the area during harbor clearing activities. No historic artifacts were identified with the exception of a dense rounded basalt stone, and a broken piece of "possible canoe rubbing stone", both without provenience (Fredericksen and Fredericksen 1992A:16). Intact beach deposits were encountered between 0.50 and 2.20 mbs in the trenches, at which point trenches were terminated.

Further to the northwest, a two acre parcel was subjected to archaeological inventory survey in 1992 by Xamanek Researches (1992b). The parcel is located close to the juncture of Wai'ehu Beach Road and Kahului Beach Road. During the survey, three historic properties were identified. The first is a previously alluded to portion of the railroad berm which originated inland on Lower Main, State Site 50-50-04-3112. Two pre-contact era sites were also identified. State Site 3119 consists of a prehistoric cultural layer containing midden, basalt flakes, and artifacts. A very early date resulted from a radiocarbon assay on charcoal found within this deposit, AD 233-410. The second site, State Site 50-50-04-3120 exhibited an extensive cultural layer, and a single human bone fragment was also documented. Subsequent data recovery at State Site -3120 yielded coral files, bone picks, an unfinished fishhook and work bone, along with the abundant midden (Erik Fredericksen, personal communication, January 18, 2008). During the data recovery phase, human burials associated with the cultural deposit were documented, and radiocarbon assays (12 submitted samples) yielded general ranges between AD 1200-1740, the majority of which were between AD 1400 to 1700. Additional monitoring up to as recent as late 2006 (Fredericksen, in press) was conducted during construction of the Nissei Veteran Center project, with the project yielding a total of 38 burials were identified. A permanent preservation area is designated on the parcel.

Human skeletal remains were also identified during a Botanical survey conducted by Xamanek Researches in 1996. According to the Heidel *et al.* 1997 report, these were retrieved from an area southwest of the Maui Arts and Cultural Center. Scattered human skeletal remains (six fragments of an innominate bone) in the central eastern portion of the project area were accorded State Site 50-50-04-4211. No report was located documenting these findings; however the burial treatment plan indicates that these were reinterred with four other sets of human skeletal remains (Devereaux and Hammatt 1998).



By 1997, the remains from the WWII use were over 50 years of age, and when Cultural Surveys Hawaii, Inc. conducted their survey of the adjacent 110 acre park, slabs and foundations identified as WWII remnants were documented as State Site 50-50-04-4232 (Heidel *et al.*, 1997). TMK (2) 3-7-001:002 is situated on the northern boundary of the Wailuku Sand dunes, and to the northwest of the current project area. The railroad berm fronted the parcel (State Site 50-50-04-3112) and had been documented during previous work to the northwest. Thirty-one backhoe trenches were excavated during the project, with location in areas exhibiting low levels of disturbance. Trenches exhibited unconsolidated dune sand overlying lithified deposits.

During construction of the Keopuolani Central Park, archaeological monitoring was conducted (Devereaux and Hammett 1998a). Five burial site locations and a military trash area were identified. State Site 50-50-0404476 consists of a complete set of human remains located on a prominent dune adjacent to the Maui Arts and Cultural Center (MACC) parking lot. Disturbed during dust fence installation, the remains were proposed for perpetual interment in their original location (Devereaux and Hammett 1998b). State Site 50-50-04-4477 included a cranium and upper torso skeletal remains. A single femur comprised State Site 50-50-04-4478, identified during initial grubbing activities in the northern side of the park parcel. State Sites 4477 and 4478 were both disinterred, as they were in disturbed contexts. A nearly complete set of remains, State Site 50-50-04-4479 were disturbed during grading activities. These remains were collected for reinterment. Only the one burial was left in place; the remaining sets of remains were reinterred within a permanent reburial site.

Xamanek Researches conducted archaeological inventory survey along Kanaloa Avenue during a County of Maui Improvement project (Fredericksen, 2005). Several sites were identified during the course of this survey, and during subsequent work mitigating improvements in the area. State Site 50-50-04- 5660 consists of a pre-contact habitation remnant. It is located within the County of Maui right-of way. State Site 50-50-04-5496 yielded evidence of a pre-contact habitation area and a water worn basalt pavement. This site is associated with human skeletal remains, and is within the Keopuolani Park boundary. Four additional burials were identified within the same general area, and were accorded State Site number 50-50-04-5495. Finally, during this same project, State Sites 50-50-04-5471 and 5472 have been interpreted as a Native Hawaiian burial and previously disturbed human remains respectively. The latter two sites are also within the County of Maui right-of-way.



## 5.0 SETTLEMENT PATTERN EXPECTATIONS

The project area and larger parcel are situated in close proximity to the sea, in an area in which during the pre-historic period villages would have been located. Wailuku *ahupua`a* is known to be an important chiefly settlement as well as an agriculturally productive area for traditional cultivation. Donham (1996) documented the distribution of historic properties along the Iao Stream, and the role these archaeological sites play in examining the prehistory of the region. The stream terminates at the Kahului Bay, creating an environmentally and resource rich area in which early settlement was likely based. Early dates derived from cultural deposits on the east side of Kahului Bay suggest early occupation between 600-800AD (Toenjes *et al.* 1991). Cultural deposits have been identified eroding out of the shoreline on northwest side of the bay, south of the Iao Stream. Although some of these dates are anomalous (Fredericksen 1992b), other dates point to continued use of the area in AD 1220-1700. The dunes forming the banks of Iao Stream have yielded remnants of prehistoric habitation materials representing hundreds of years of occupation, the prehistoric through historic eras, by indigenous Hawaiian people.

The abundance of Land Commission Awards within the banks of the Iao Stream attest to the continued traditional use of the area in the early historic era. These are depicted in Figure 5, an 1882 map created by M.D. Monsarrat. The dunes were also utilized for burials, which have been encountered in virtually every development project in which sand is the primary matrix (e.g. Keopuolani Park, the Sand hills subdivisions, Maui Lani Development areas, Ka`ahumanu Highway). It is likely that in the area of Maui Community College campus prior to the massive earth moving activities associated with its construction and previous use during World War II, that burials might have been located within the confines of the parcel. The leveling associated with campus construction appears to have removed the original dune based on current elevations. Thus, although the area would have likely originally exhibited remnants of habitation and associated burials, it is unlikely that historic properties representing the pre-contact era are present.

The shoreline fronting the Maui Community College campus has been altered during harbor construction, yet during the traditional era, Kahului Bay would have provided a wealth of marine resources available to those populating the shores of the bay. The 1882 Monsarrat map also illustrates the Kahului Bay prior to alteration via dredging and breakwater construction. The *ili* of Kalua is clearly depicted on the map, and it appears that a break in the reef formation occurs just off the shore of Kalua. The dunes depicted to the north and west of the project area suggest that although substantially altered today, the dunes did not exhibit the elevation evidenced in Keopuolani Park and the area known as Sand hills further west within Kalua.

It is possible that buried deposits representing WWII debris from the use of the area by the 18<sup>th</sup> Battalion may be identified in the project area. Although the field (now parking area) in which the project is located has been leveled and landscaped, subsurface remnants of either early cultural deposits or the above mentioned WWII debris may be located.



## 6.0 ARCHAEOLOGICAL INVESTIGATIONS

Archaeological investigations for this project took place on the 21<sup>st</sup> and 22<sup>nd</sup> of January 2008. A total of 12 backhoe trenches were excavated within the boundaries of the project area. Trench location was designed to systematically test the subsurface deposit across the proposed footprint for the new MCC Science Building. Specific trench locations were constrained by existing subsurface pressurized water lines as well as irrigation lines which bisect the proposed building footprint. Trenches were excavated to depths yielding natural sand, and within Office of Safety and Health Administration guidelines (OSHA).

### TRENCH DESCRIPTIONS

The discussion below presents individual trench stratigraphy. Both representative trenches and trenches exhibiting anomalies are presented in Figures 7 through 12. Each of the twelve trenches is described below. Trench data in tabular form is presented in Appendix B.

**Trench 1** was excavated in the southeast corner of the proposed building footprint. Two stratigraphic layers were identified. The trench was excavated to a basal depth of 110. Layer I consisted of a weak red (2.5YR 6/2) color, and was comprised of clay. The clay was crumbly in texture, slightly sticky and slightly plastic, with an abrupt boundary. The deposit represented a gravel fill layer. The fill deposit reached a basal depth of 8 cmbs.

Layer II within Trench 1 extended from 8 cmbs to 110 cmbs. Munsell color was 2.5Y 5/3, and the deposit consisted of a loose sandy texture and structure. It was non-sticky and non-plastic, and slightly cemented with coral. The deposit represents a natural dune basal layer.

**Trench 2** was located 10 meters to the north of trench 1 and was excavated to a basal depth of 118 cmbs (Figures 7 and 8). Layer I extended from 0 to 15 cmbs, and was consistent with Layer I in Trench 1. The color was weak red (2.5YR 6/2), with a clay texture, crumbly fine structure, sticky, plastic consistency. The abrupt boundary evidenced the composition of gravel fill.

Layer II, 8-45 cmbs, exhibited a 2.5Y 5/3 loose sand texture, with a fine sand structure. The sediment is non-sticky, non-plastic in consistency, exhibiting smooth boundaries. Layer III (45-118+ cmbs) was dark yellow brown (10YR 4/6) with a loose sand texture and fine sand structure. This layer was non-sticky, non-plastic in consistency, with smooth boundaries. Feature 1 was identified within this trench, at a depth between 45-105 cmbs. The feature represented a recent *imu* event, resulting in a gray (10YR 6/1) loose sand texture and structure. The matrix within the feature was non-sticky, non-plastic consistency, with abrupt boundaries. Large pieces of partially burned *kiawe* wood a piece of plastic was identified within the feature; no other cultural materials were identified. Figure 8 illustrates the layer of rocks at the base of the feature.



Figure 7. Trench 2 Photograph

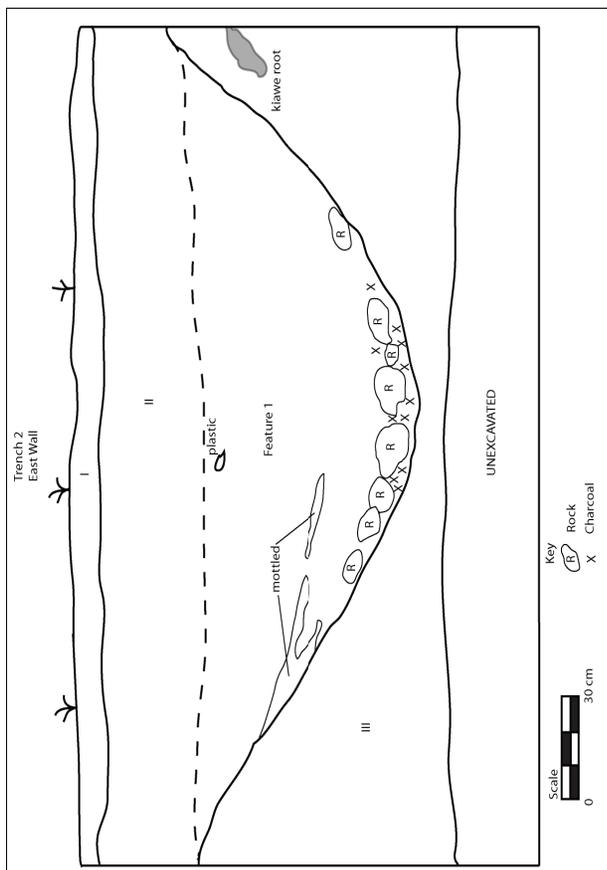


Figure 8. Trench 2 Profile

**Trench 3.** Five stratigraphic layers were identified in Trench 3, which was located 10 meters to the north of Trench 2. The trench was terminated at 100 cmbs, in cemented sterile sand. Layer I (0.5cmbs) consisted of a 2.5YR 6/2 colored clay with crumbly texture and structure, slightly sticky plastic consistency, with abrupt boundaries and represented the gravel fill layer identified within the other trenches. Layer II extended from 5-17 cmbs (2.5Y 5/3) with a sand texture, fine sand structure and slightly sticky plastic consistency. The boundary (between II and IIA) was smooth, and the deposit was slightly lithified. Layer IIA (17-61 cmbs) was comparable to II in terms of color, texture, structure and consistency, but was loose, not lithified. Within Layer IIA was a lens of sediment with charcoal flecking (between 50 and 58 cmbs; see East wall profile Figure 9). The lens represents a natural depositional event, and no cultural material was within the lens, nor was there any other evidence to suggest that the lens represented a cultural event.

Layer III extended between 60 and 94 cmbs. It too registered a 2.5Y 5/3 Munsell color, sand texture, fine sand structure, slightly sticky plastic consistency, with smooth boundaries. Layers II, IIA and III were only slightly distinct from each other. Basal Layer IV, 92-100 cmbs exhibited similar characteristics to Layers II, IIA and III in terms of texture (sand), structure (fine sand), a slightly sticky, plastic consistency with smooth boundaries. Layer IV differed, however, in color (10YR 4/6) and in that Layer IV was cemented.

**Trench 4.** Trench 4 was excavated to a basal depth of 110 cmbs. The trenches were staggered such that Trench 4 was located to the west of the area between Trenches 1 and 2. Layer I, the gravel fill layer, conformed to Layer I in the other trenches. It extended between 0 and 8 cmbs (2.5YR 6/2). The clay texture exhibited crumbly structure, a slightly sticky, plastic consistency, with abrupt termination. Layer II within this trench (8-43 cmbs) was sandy texture (2.5YR 5/3), with fine sand structure, and was non-sticky and non-plastic in consistency. The boundary was smooth and the deposit was slightly cemented. Layer IIA exhibited the same characteristics as II, although no cementing was observed. A thin banding was observed at the interface between Layers II and IIA.

**Trench 5.** Trench 5 was excavated to a depth of 118 cmbs and was located to the west and between trenches 2 and 3. From 0 to 12 cmbs, the gravel fill Layer I (2.5YR 6/2), is characterized by clay texture, crumbly structure, slightly sticky, plastic consistency, and an abrupt boundary.

Layer II exhibits a sand texture (2.5Y 5/3) fine structure and is non-sticky, non-plastic consistency. The deposit is cemented with abrupt boundaries, extending between depths of 12-63 cmbs. Layer IIA (61-107 cmbs) conforms to the characterization depicted above for Layer II, except it is not cemented. The trench terminates with Layer IIB (2.5Y 7/1), sand texture, fine structure, non-sticky, non-plastic consistency and again, cemented.

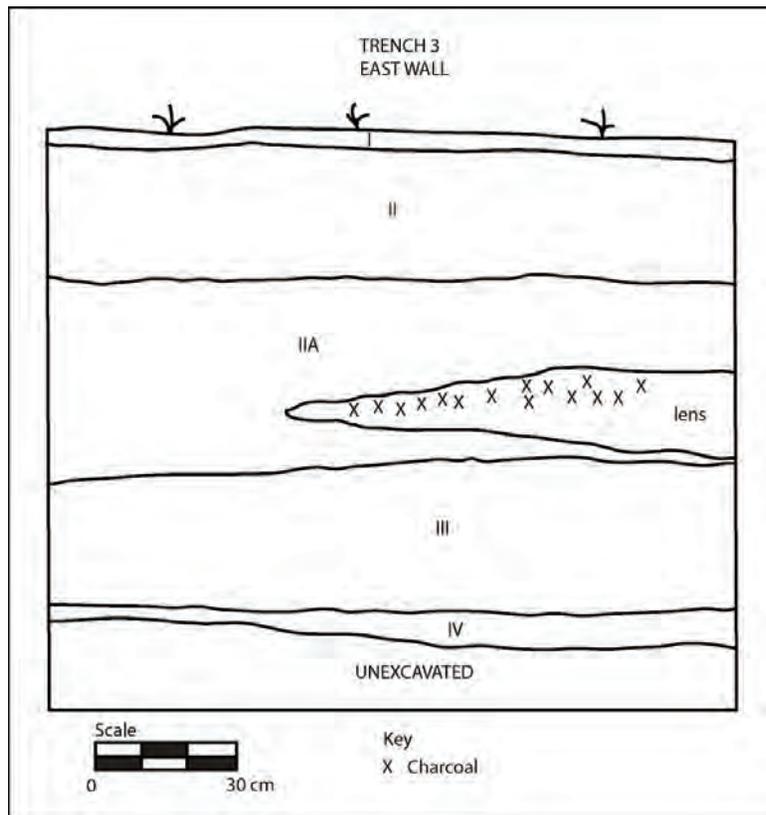


Figure 9. Trench 3 Profile

**Trench 6.** Trench 6 was located to the west of trench 4. The east wall profile is depicted in Figure 10. Layer I conformed to the gravel fill layer in all characteristics, and extended between the surface and 15 cmbs. Layer II (10YR 4/6; dark yellowish brown) exhibited a sand texture and loose fine structure apparent between 10 and 45 cmbs. The consistency was non-sticky and non-plastic, with clear boundaries. Layer III, although different in color (10YR 3/1) and mottled very dark gray, exhibited the sand texture, loose fine structure, and non-sticky, non-plastic consistency. It extended from a minimum depth of 42 cmbs to a maximum of 52 cmbs.

Layer IV (10YR 4/6; dark yellowish brown) consisted of sand texture, loose fine structure, non-sticky, non-plastic consistency and was cemented. The depth of Layer IV was 52 to 85 cmbs. Between depths of 83 and 102 cmbs, Layer V was an anomalous layer. The silt texture (10YR 3/3; dark brown) exhibited fine structure, it was slightly sticky and non-plastic in consistency, with smooth boundaries. This silt layer is consistent with expectations resulting from a rapid episode of erosion. The basal deposit in this trench was also comprised of silt (10YR 3/4; dark yellowish brown) and extended between depths of 100 to 120 cmbs. The deposit exhibited fine structure, and slightly sticky, non-plastic consistency.

**Trench 7.** Trench 7 exhibited two strata. Layer I, consisted of the clay textured, crumbly structured, slightly sticky, plastic consistency gravel fill layer. It was slightly thicker in this trench (0.18 cmbs) which was located to the west of Trench 5. Layer II, the basal layer, exhibited a brown color (10YR 4/3), sand texture and structure, non-sticky, non-plastic consistency, and was slightly cemented.

**Trench 8.** Trench 8 was also oriented in the north-south axis, and was on excavated on the west side of the pressurized water line that bifurcated the project area. Layer I (2.5 YR 6/2), clay texture, crumbly structure, consisted of the slightly sticky, plastic consistency, gravel fill layer, between depths of 0-10 cmbs. Layer II, at depths between 10 and 40 cmbs, was brown/yellow mottled (2.5Y 7/3). It exhibited sand texture, fine structure and was non-sticky and non-plastic in consistency. Between depths of 36 to 82 cmbs, Layer III was 10YR 4/3. Sand texture, fine structure, no-sticky and non-plastic consistency, it was slightly cemented.

Layer IV extended only 7 cm between 80 and 87 cmbs. It was a strong brown (7.5YR 5/6), with the characteristic sand texture, fine structure, non-sticky and non-plastic consistency. The boundaries were smooth. The basal stratum, Layer V (86-130 cmbs) was comprised of sand texture, fine structure, non-sticky and non-plastic consistency.

An active irrigation line was located at a depth between 40 and 60 cmbs in Trench 8. No evidence of variation in stratigraphy for the placement of the irrigation lines was observed in the trench walls. The line was broken and repaired prior to final backfilling of the trench. The line was oriented in a general east west direction.

**Trench 9.** Trench 9 was oriented in an east west direction, in an effort to avoid impacting any other irrigation lines that might be oriented in the same direction. Efforts to excavate parallel to the possible irrigation system avoided additional impacts to the hydraulic system serving the campus.

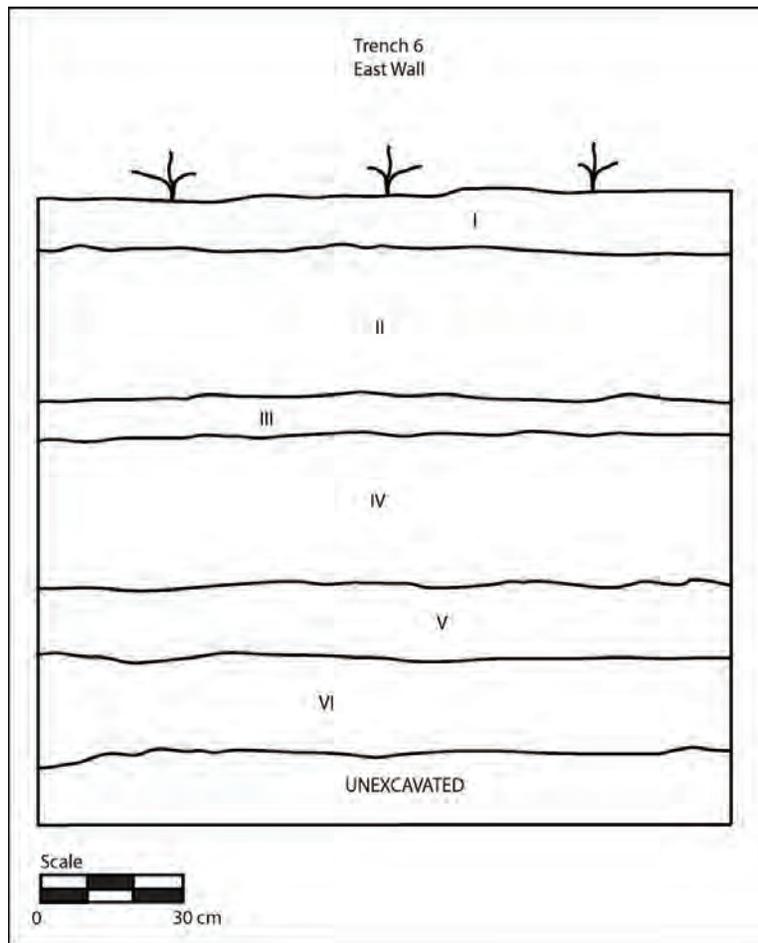


Figure 10. Trench 6 Profile

Layer IIA (40-78 cmbs) was mottled with two variable colors; 7.5YR 5/6 strong brown and 10YR 5/4 yellowish brown (see profile). These were sequenced beginning with the strong brown and ending with the strong brown interspersed with the yellowish brown. The texture, structure, and consistency of all five mottled levels were identical, and it is interpreted as windblown. The south wall of trench 9 was profiled (Figure 11). Layer I (0-12 cmbs) was dark brown (y.5YR 3/4, clay texture, blocky structure, with a sticky plastic consistency. This was fill associated with the creation of the parking area. Layer II consisted of cemented sand (10YR 6/3) between depths of 10 and 42 cmbs. The sandy texture exhibited a fine platy structure and was non-sticky and non-plastic in consistency with smooth boundaries.

Layer III (75-110 cmbs) represents a cemented grayish brown layer (10YR 5/2). Characterized by sand texture and fine platy structure, the consistency was non-sticky, and non-plastic. The deposit was cemented. Layer IV was only slightly different in color (10 YR 5/3), with the same texture, but exhibiting a fine loose structure. The basal deposit (120-150 cmbs) consisted of brown compacted sand with fine structure, non-sticky and non-plastic consistency, and smooth boundaries.

**Trench 10.** The south wall of trench 10 is depicted in Figure 12. The trench was oriented east west, and was located to the south of trench 8, within the grassy field adjacent to the parking area. Three layers were evident. Layer I (0-35 cmbs) consisted of a silt loam texture (10YR 3/4) with fine structure, and was sticky, non-plastic consistency. Kiawe roots and fill further characterized this layer.

Layer II consisted of sand (10YR 5/2) and extended between depths of 35-60 cmbs. The color was a gray brown and the deposit was slightly cemented. The structure was fine, with non-sticky and non-plastic consistency and smooth boundaries. Between Layer II and III, thin banding, interpreted as windblown deposits were noted. They varied in color from 10 YR 4/2, 10 YR 5/2 and 10 YR 4/2. Basal Layer III (70-130 cmbs) was brown (10YR 5/3) sand, fine loose structure, non-sticky and non-plastic consistency.

**Trench 11.** Trench 11 was oriented in an east west direction and located in the grassy area adjacent to the parking area. Between depths of 0 and 20 cmbs, the trench exhibits similar silty loam gray brown deposit (10YR 3/4) as observed in Trench 10. The silty loam exhibits a fine structure, with sticky plastic consistency and abrupt boundaries.

Layer II, between depths of 12-95 cmbs consists of loose sand (10YR 5/3) and exhibits a sand texture, fine loose structure, and a non-sticky, non-plastic consistency. Micro banding was observed at the interface between Layers II and III, representing windblown event similar to that generating the banding observed in Trench 10.

Layer III extends between 90-115 cmbs. It is 10 YR 5/3, and consists of fine loose sand, both non-sticky and non-plastic in consistency. Basal Layer IV (110-155 cmbs) is 10YR 5/2 in color, fine sand texture and structure, non-sticky, non-plastic in consistency and slightly cemented.

**Trench 12.** Also located in the grassy area adjacent to the auxiliary parking lot, Trench 12 was excavated to a basal depth of 130. Excavated in an east west orientation, the trench was profiled

using the north face, which depicted the greatest variability of all the trenches excavated. Layer I (0-12 cmbs), the 10YR 3/4 silty loam deposit exhibited fine structure, and a sticky, plastic consistency.

Layer II was comprised of loose sand, and extended between 10 and 42 cmbs (10YR 5/2). The sand exhibited a fine structure with non-sticky, non-plastic consistency. Layer III was comparable to Layer II, although different in color (7.5YR 5/6), and comprised a narrow (38-45 cmbs) deposit, likely a Aeolian event. Layer IV was slightly cemented, 10YR 6/3, but fine non-sticky, non-plastic sand, comparable to that identified elsewhere on the project. Layer V (55-68 cmbs) exhibited a fine sand texture and structure, non-sticky and non-plastic consistency, and was slightly cemented.

Layer VI consisted of compact sand (10 YR 6/3) with the same characteristics, fine structure, non-sticky non-plastic consistency extending between depths of 65-100 cmbs. Layer VII (95-108 cmbs) was a narrow layer of 7.5YR 5/6 fine sand texture/structure, non-sticky, non-plastic consistency, and was very loose. The basal Layer VIII (10YR 4/3 extended from 108 to 130+ cmbs, and consisted of fine, non-sticky, non-plastic, and compacted sand.

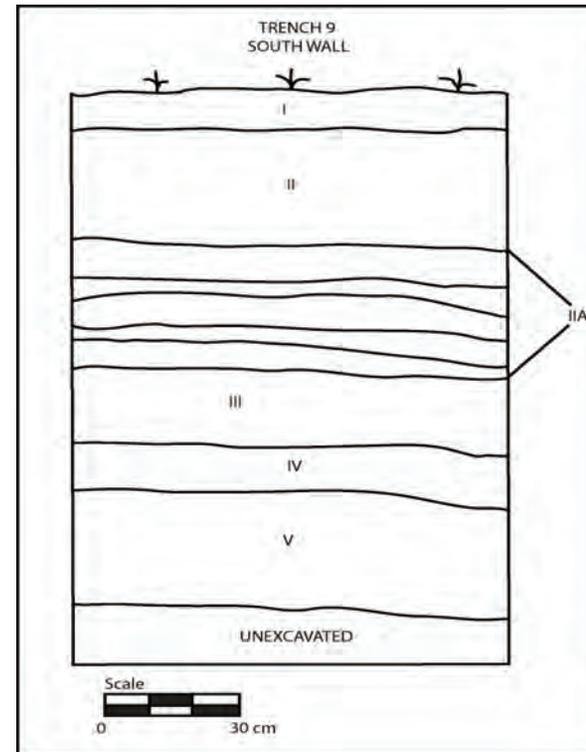


Figure 11. Trench 9 Profile

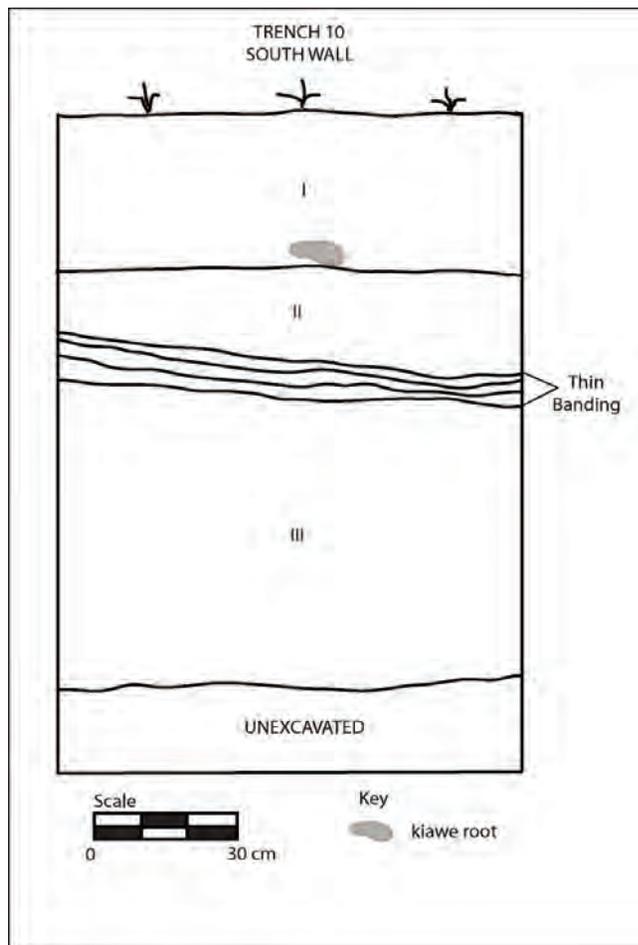


Figure 12. Trench 10 Profile

## 7.0 SUMMARY AND DISCUSSION

This report presents the results of archaeological inventory survey and subsurface testing for the Maui Community College (MCC) proposed Science Building. Details for the proposed science building are presented in Appendix C. The building is to be constructed within an area of the existing MCC campus that is currently used for auxiliary parking. Formerly the area comprised a portion of the playing field adjunct to the Physical Education Department. The purpose of the archaeological investigations is to determine previous land use through archival research, and to conduct subsurface testing to determine the presence or absence of subsurface historic properties representing previous pre-historic and historic use of the area.

The larger subject parcel of which the proposed building footprint is a part has been used in the past for historic activities concurrent with World War II. Archival research and previous archaeology has detailed the various activities which occurred on the parcel. In addition, the general area was subjected to in-filling episodes during dredging of the Kahului Harbor and associated with the general harbor improvements. Construction of the existing Maui Community College and installation of infrastructure necessary to support the campus has also left a signature in the area.

Twelve backhoe trenches were excavated within the project area. No historic properties were identified within any of them. A recent imu was identified within Trench 2, likely representing activity associated with Community College activities within the past 30 years. Fill was also identified within all of the trenches. The fill is recent, as part of the effort to level and gravel the auxiliary parking area currently in use. All of the sand within the trenches exhibited homogenous characteristics suggestive of the basal layers of a former dune environment and application of homogenous material applied following dredging of the Kahului Harbor. This corresponds with the early (circa 1882) map by Monsarrat depicting extension of the dune system across portions of the current Maui Community College Campus. Sculpting for the old Maui Community College generated the homogenous deposit as upper layers were removed along with more surficial cultural deposits that may have been present. The few lenses of silt and mottled soil suggest periodic erosional events under normal circumstances.

## 8.0 RECOMMENDATIONS

The results of the archaeological inventory survey suggest that there is a low potential for encountering historic and cultural properties during construction of the proposed Science Building on the Maui Community College campus. It is unlikely that remnants of pre-historic use of the area will be identified during excavation associated with building construction. Subsequent uses during the historic period, including but not limited to the use of the area by the 18<sup>th</sup> Battalion (USMC), may have left historic remnants not yet identified.

Although no historic properties or cultural materials were identified within the trenches, the presence of aeolian sand in the subsurface deposits indicates that it is still possible that historic properties may be identified during ground altering activities. It is recommended that archaeological monitoring accompany all ground altering activities that exceed a depth of 18-inches below the current ground surface during the project. An archaeological monitor should be present during all ground altering activities exceeding 18-inches to mitigate impacts to historic properties that may be identified in the subsurface deposit.

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March 2008



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Archaeological Inventory Survey  
Maui Community College  
Wailuku Ahupua`a, Wailuku District, Maui  
March 2008



APPENDIX A  
NATIVE TESTIMONY AND NATIVE REGISTERS  
FOREIGN TESTIMONY AND REGISTERS

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On his death, I had a conference with D. Malo. Kawailepolepo was the one who took the sum /to the ali'i/. He did not see the funeral of the deceased. Three years and some months passed and these years were paid for as mentioned above. After these years, the wrong was not explained, after we had been occupying it, the land was taken, until now when I am telling you of it.

The boundaries are as follows: On the north, Haliiau and the stream, on the east, Papohaku /stone wall or enclosure/ and the pond, on the south Kalua, on the west, a section of Haliiau and Feepee.

The right to the house on this land is as follows: Auwae thought of building a house for the two of us, and he discussed with D. Malo the means of completing the construction in 1831 -- that was the year of the conference with D. Malo. Here are the things which belong to this house, purchased with our own money: the lumber, the glass, the nails, the paint and all the fixed assets of the house were the possessions of Auwae which were prepared

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for it. From the land we got some wahi /wahi=firewood?/, some coral and some stones, since he thought this was his compensation for being the konohiki, and from our own people we got some wahi /?/, some coral, and stones.

Some assisted at this time with oxen and ox carts for carrying the sand for this house.

The witness is David Malo for he is the one with whom these things were discussed.  
Wailuku, 14 Jan. 1847

KAGO X )  
H. KUIHELANI )

The right of dispossession by the ali'i has been purchased by the one who has a certain 'ili at Waikapu called Owa, for forty dollars. If we should be dispossessed from the ahupuaa, this lot shall not ever be dispossessed. The tribute per year shall be \$5. I consent to this document.

KING KAUIKEAOULI  
December 1, 1834

No. 421 Napolokuua See N Page 150

Letter of Testimony to the Land Commissioners:

Concerning my 22 taro patches and the share of the stream. My rights to these were given by Auwae and I have lived here until now. My rights are from the continuous occupation and the work which I did on the place. There are many children living in this little kuleana. The Elele commanded us to tell of our rights, so I have explained.

OFFICE OF THE HAWAII STATE ARCHIVES

Lumilani sworn:

The documents were read and it was similar to what I had heard at that time. It was in the year 1837 probably that they had been separated [from the land] and there was no reason for this action. It [land] was possessed by Kalauwalu and Kaunuohua has it at the present time. He has lived there since that time to this very day. It was Auwae who had given that stone house on that land and Kailihiwa had trimmed the roof with pili. Namakeha lived on the land and Keahi lived under Naea. I have seen them (two) give \$40.00.

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Pule sworn:

I am not related to these two [people]; we are attendants for Auwae but we were living with him on the day he died. Waikawae is for Naea. Auwae was still living when I had his bequest. He was more fearful of losing land than he was of death. They had been successful at that time in buying this property at the time of Noa. When he dies, then the money would be for the land. I do not know the reason for the release of their land.

It was postponed until at Lahaina, D. Malo will testify. See pg. 390, Vol. 3 for the king's claim. See pg. 197

No. 425 - Pi

Napela sworn by the Word of God:

I have seen that place which is at Kahilinaamaia in Waihee. I do not know the number of patches. The boundaries are on the north a property; on the east are several hakuone patches which are named Lono and I do not know the boundaries on the south and I have not seen the patches at Holile but if they have been stated in his claim, then they are true because the land is for an older brother and his boundaries are several fields only; how-

page 171

ever at Pahukaula he has a forked river. The oopus have been eaten and shared with the konohiki as well. He had received his [land] and the river section from Hawaii in the year 1833. He lived under Hawaii at that time until Hawaii's death and no one has ever objected to him.

Aa sworn by the Word of God:

I have seen all of those patches and the river. Pi had received his (interest) from Hawaii; Hawaii, from Z. Kaauwai; Z. Kaauwai, from Hoapili and Pi has lived there to this day, no one has objected but he has been objected for the river by the landlord of Pahukaula. Pi had received all of these places in the year 1873 (1833). See Vol. 15 F.T., p. 102.

No. 451 - Lihi

Kaauwai sworn:

I have seen there is at Maneme a village for Lihi from Auwae. When he (Auwae) died [he] lived under Kawallepolepo and when Kawallepolepo died Lihi lived under Kailihiwa and his children are living there. He has some patches

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Pahiha sworn (continued)

page 196

Kahekili's property. It is the property of Kamakini and his wife Puhalanui that is close to Kahekili. It is from Kaaimalalo to Puhalanui. Puhalanui is the owner of that property. Pahiha had increased his place after the board of commissioners who quiet land titles had gone to

page 197

Wailuku. It has been fenced in the center with objections to our place.

At this time we, the land officers, have placed Moku to look into Pahiha's property and then report to us who are the commissioners.

No. 420 - Kuihelani From pg. 169

Malo sworn by the Word of God:

I have talked with Auwae about that property which is Owa by name. He had told me that he feared greatly the separation of land. When it did happen, Waihee was much afraid and he said to me, "I know the evil of the separation of land and I have sympathy for the people who have sought in vain for the things which would be gainful to them." He did not eat any food for seven days. After the death of Auwae, we discussed all of the things which were stated in the complaint. After this Kawallepolepo went to Oahu with the money and upon his return reported that he had seen the chief write his name in pencil on the document because there was no ink and because he was on board a ship at the time he had written his name is the reason I have heard for the separation (of the land) Kalualu had said, "Do not sell, it might be a permanent loss," that is what I have heard from Ka-

page 198

wallepolepo. Kaihioewa had a grudge in the separation and when the money was returned, I had heard from Kaoo that he was not in favor for the return of the money but was desirous of having the land be kept by them always. The stone house was built the way it had been mentioned in the document.

No. 467 - Imiwale From pg. 87

Timoteo sworn by the Bible:

I have seen the place Imiwale is claiming, which is at Kuhua and it had been from Kalehu. Kalehu is Imiwale's friend. Kalehu is the konohiki for Kuhua and he had lived there before Peleleu and he is living there at this time. No one has objected to his residing there.

Z. Kaauwai sworn by the Word of God:

That was the year 1823, that we had returned to Maui here when I had seen Imiwale living there and he has been living there since that time to the present time. I have not heard that he has resisted the konohikis for his place which he lives on, nor that anyone has objected to him.

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Kamamalu, Lota Kapuaia and Mose Kekuaia, and of Keelikolani, and of mine, and of my wahine, Kaloloahilani, their lands which remain from the division by the Mo'i. In these lands, my ali'is have rights, and the lunas whom I have appointed have rights on their lands, and the commoners have their rights. When the day comes when you think of working on this I will go. If on Kauai, I will go and work with my konohikis and the commoners living on these lands, which have been stated in this Book, and so also with those of Oahu and of Maui and of Hawaii. I am, with aloha, your fellow worker,

M. KEKUANAOA

## No. 7713 Victoria Kamamalu - Land Division

See page 569

	'Ili	Waimano	Ewa	Oahu
Opukaula	"	"	"	"
Kilauluna	"	"	"	"
Hananau	"	"	"	"
Kananelu	"	"	"	"
Pohe	"	"	"	"
Kaulu	"	"	"	"
Kapuna	"	"	"	"
Poupouwela	"	Manaiki	"	"
Kapaloa	"	Waiawa	"	"
Panio	"	"	"	"
Kuhialoko	"	"	"	"
Kahoaiial	"	"	"	"

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Papaa	"	"	"	"
Keohai	"	"	"	"
Kalona	"	"	"	"
Kuhiaraho	"	"	"	"
Kapuaihalulu	"	"	"	"

2.	Halea	'Ili	Waiawa	Ewa	Oahu
Piliaumoa	"	"	"	"	"
Kionaole	"	"	"	"	"
Hanakehau	"	"	"	"	"
Kapopou	"	"	"	"	"
Kalimukele	"	"	"	"	"
Kumuulu	"	"	"	"	"
Hapuna	"	Waiiau	"	"	"
Waiaula	"	Kalihi	Kona	"	"
Kalaepohaku	"	"	"	"	"
Kauluwela	"	Kapalama	"	"	"
Hanevai	"	Honolulu land	"	"	"
Kapaakea	"	Waikiki	"	"	"
Komoavaa	"	"	"	"	"
Waiatae	"	"	"	"	"

3.	Halava	Ahupua'a	Koolau	Molokai
Kaa	"	"	"	Lanai

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Kelaweia	Ahupua'a	Lahaina	Maui
Moalii	"	"	"
Aki	"	"	"
Faunau	"	"	"
Waihee	"	West Puuli	"
Kalua	'Ili	Wailuku	"
Haiku	Ahupua'a	Hamakualoa	"
Makapuu	"	Hana	"
Kawela	"	"	"
Onouli	"	"	"

Kaumanu	Ahupua'a	Hana	Maui
2 Kahalehili	"	"	"
3 Kaeloku	"	"	"
Honokalani	"	"	"
Kawalapa	"	"	"
5 Niunuu	Ahupua'a	Hana	Maui
2 Palemo	"	"	"
3 Pakakia	"	"	"
2 Kahuakamalii	"	"	"
Ihuula	"	"	"
Oloewa	"	"	"
4 Papalauhau	"	"	"
4 Mokae	"	"	"
Puekahi	"	"	"
Puiki	"	"	"
3 Kapchoe	"	"	"
Fukuilua	"	"	"
2 Kaou	"	"	"
Halehana	"	"	"
Kaukuhalahala	"	"	"
2 Piapia	"	"	"
Koakapuna	"	"	"
Kawaalua	"	"	"
Fuekahi	Ahupua'a	Hana	Maui
Fuekauliki	"	"	"
Pohakanele	"	"	"
Ahuakaio	"	"	"
Kihapuhala	"	"	"
Papahawahawa	"	"	"
Huolea	"	"	"
Fuuhaoa	"	"	"
Kahalawe	"	"	"
Ohia	"	"	"
Kolokole	"	"	"

Kapuumahuka	Ahupua'a	Hana	Maui
Mahulua	"	"	"
Poopoo	"	"	"
Lapalapaki	"	"	"
Waieli	"	"	"
Faihala	"	"	"

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APPENDIX B  
TABLES OF TRENCH STRATIGRAPHY

Table 1. Trench 1

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-8	Weak Red (2.5YR 6/2), clay; crumbly structure; slightly sticky plastic; abrupt boundary Fill with Gravel
II	8-110+	2.5Y 5/3, loose sandy texture; sandy structure; non-sticky and non-plastic; Slightly cemented with coral, natural dune

Table 2. Trench 2

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-15	Weak Red, 2.5YR 6/2; Clay texture, crumbly fine structure; sticky plastic consistency; abrupt boundary, fill with gravel
II	8-45	2.5 Y 5/3; loose sand texture; fine sand structure; non-sticky, non-plastic; smooth boundary
III	45-118+	Dark Yellow Brown 10YR 4/6; loose sand texture; fine sand; non-sticky, non-plastic consistency; smooth boundary
Feature I	45-105	Gray 10YR 6/1; sand texture; loose fine structure; non-sticky, non-plastic; abrupt boundary; recent imu remnant

Table 3. Trench 3

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-5	2.5YR 6/2; clay texture; crumbly structure; sticky plastic consistency; abrupt boundary; fill with gravel
II	5-17	2.5Y 5/3; sand texture; fine sand structure; sticky plastic consistency; smooth boundary; slightly lithified
IIA	17-61	2.5Y 5/3; sand texture; fine sand structure; sticky plastic consistency; smooth boundary; loose
III	60-94	2.5Y 5/3; sand texture; fine sand structure; sticky plastic consistency; smooth boundary
IV	92-100	10YR 4/6; sand texture; fine sand structure; sticky plastic consistency; smooth boundary; cemented
Lens	50-58	10YR 3/1; sand texture; loose sand structure; non-sticky, non-plastic; smooth boundary; lens with charcoal flecking

**Table 4. Trench 4**

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-8	2.5YR 6/2; Clay texture, crumbly structure; s. sticky plastic consistency; abrupt; fill with gravel
II	8-43	2.5Y 5/3; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; slightly cemented
IIA	40-110	2.5Y 5/3; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; not cemented

**Table 5. Trench 5**

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-12	2.5YR 6/2; clay texture; crumbly structure; s. sticky plastic; abrupt boundary; fill
II	12-63	2.5 Y 5/3; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; cemented
IIA	61-107	2.5 Y 5/3; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; non-cemented
IIB	105-118	2.5Y 7/1; sand texture; fine structure; non-sticky, non-plastic; smooth boundary; cemented

**Table 6. Trench 6**

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-15	2.5YR 6/2; clay texture; crumbly structure; s. sticky plastic; abrupt boundary; fill with gravel
II	10-45	10YR 4/6; sand texture; loose fine structure; non-sticky, non-plastic consistency; clear boundary
III	42-52	10 YR 3/1; sand texture; loose fine structure; non-sticky, non-plastic; clear; trench fill
IV	52-85	10 YR 4/6; sand texture; loose fine structure; non-sticky, non-plastic; clear; cemented
V	83-102	10YR 3/3; silt texture; fine structure; slightly sticky, non-plastic consistency; smooth boundary
VI	100-120	10 YR 3/4; silt texture; fine structure; slightly sticky, non-plastic consistency;



**Table 7. Trench 7**

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-18	2.5YR 6/2; clay texture; crumbly structure; s. sticky, plastic consistency; abrupt boundary; fill with gravel
II	15-128	10 YR 4/3; sand texture; sand structure; non-sticky, non-plastic consistency; slightly cemented

**Table 8. Trench 8**

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-10	2.5YR 6/2; clay texture; crumbly structure; s. sticky plastic consistency; abrupt boundary; fill
II	10-40	2.5Y 7/3 sand texture; fine structure; non-sticky, non-plastic; smooth boundary; mottled
III	36-82	10YR 4/3; sand texture; fine structure; non-sticky, non-plastic; smooth boundary; slightly cemented
IV	80-87	7.5YR 5/6; sand texture; fine structure; non-sticky, non-plastic; smooth boundary
V	86-130	10YR 4/3 sand texture; fine structure; non-sticky, non-plastic; smooth boundary

**Table 9. Trench 9**

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-12	7.5YR 3/4; clay texture; blocky structure; sticky plastic consistency; abrupt boundary; fill
II	10-42	10YR 6/3; sand texture; fine platy structure; non-sticky, non-plastic consistency; smooth boundary; cemented
IIA	40-78	See Profile for colors; sand texture; fine loose structure; non-sticky, non-plastic consistency; smooth boundary; mottled/windblown
III	75-110	10YR 5/2; sand texture; fine platy structure; non-sticky, non-plastic consistency; smooth boundary; cemented
IV	110-125	10 YR 5/3; sand texture; fine loose structure; non-sticky, not plastic consistency; smooth boundary
V	120-150	10YR 4/3; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary

**Table 10. Trench 10**



Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-35	10YR 3/4; silt/loam texture; fine structure; sticky, non-plastic consistency; clear boundary, Kiawe roots and fill
II	35-60	10 YR 5/2; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; slightly cemented
III	70-130	10YR 5/3; sand texture; fine loose structure; non-sticky, non-plastic consistency

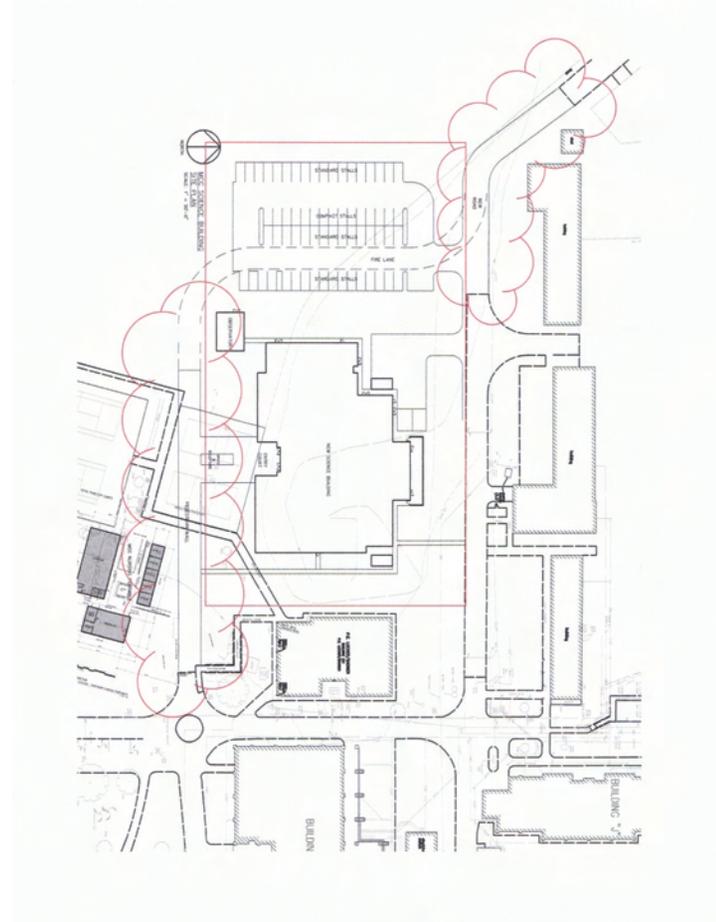
**Table 11. Trench 11**

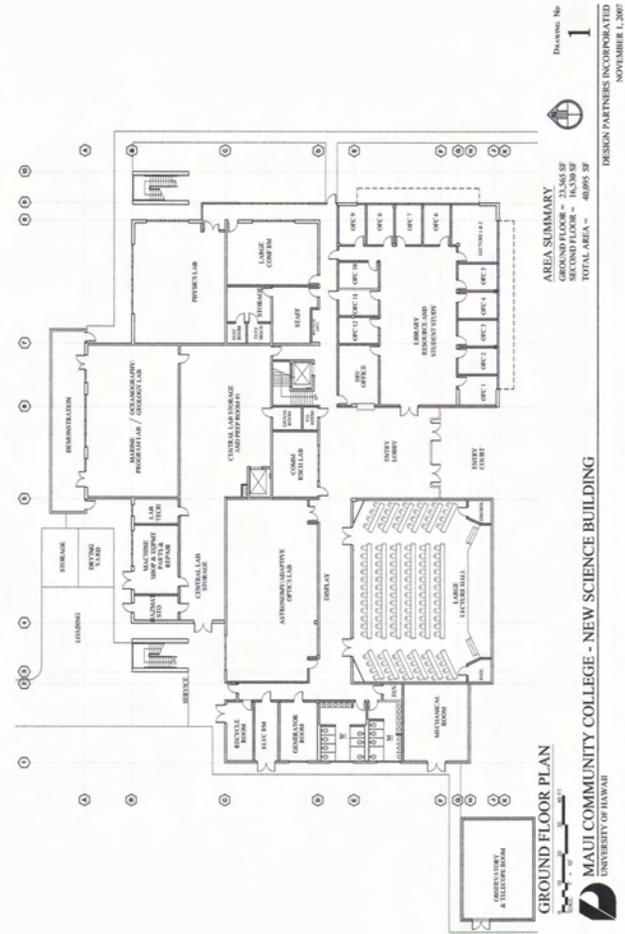
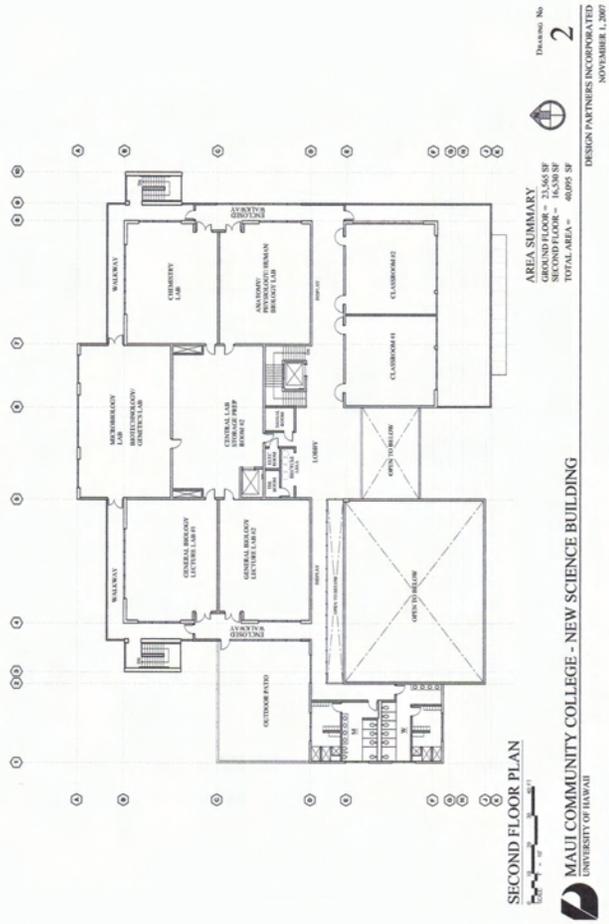
Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-20	10 YR 3/4; silty loam texture; fine structure; sticky plastic consistency; abrupt boundary
II	12-95	10YR 5/2; sand texture; fine loose structure; non-sticky, non-plastic consistency; smooth boundary
III	90-115	10YR 5/3; sand texture; fine loose structure; non-sticky, non-plastic consistency; smooth boundary
IV	110-155	10 YR 5/2; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; slightly cemented

**Table 12. Trench 12**

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-12	10YR 3/4; silt loam texture; fine structure; sticky plastic consistency; abrupt boundary
II	10-42	10YR 5/2; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; loose
III	38-45	7.5YR 5/6; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; loose
IV	45-55	10YR 6/3; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; slightly compacted
V	55-68	10YR 5/2; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; slightly cemented
VI	65-100	10YR 6/3; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; compact
VII	95-108	7.5YR 5/6; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; loose
VIII	108-130	10YR 4/3; sand texture; fine structure; non-sticky, non-plastic consistency; smooth boundary; compacted

APPENDIX C  
PROPOSED PROJECT PLANS





LINDA LINGLE  
GOVERNOR OF HAWAII



2008 JUN 13 PM 12:43  
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DEPARTMENT OF PLANNING  
STATE HISTORIC PRESERVATION DIVISION  
COUNTY OF MAUI, ROOM 555  
MOKILA BOULEVARD, ROOM 555  
RECEIVED KAPOLEI, HAWAII 96707

LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSIONER OF WATER RESOURCE MANAGEMENT  
RUSSELL V. TSUJI  
FIRST DEPUTY  
KEN C. KAWAHARA  
DEPUTY DIRECTOR - WATER  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSIONER  
LAND  
STATE PARKS

Mr. Danny Dias  
Page 2

We recommend that no action be taken on the proposed action until we have received and accepted the anticipated Archaeological Inventory Survey report documenting the archaeological field work results. If necessary, any historic properties that may be identified in the subject area need to be fully documented, the project's impact assessed, and any proposed mitigation measures (such as archaeological monitoring) should be presented for SHPD concurrence. We will forward any applicable updates, additional comments, and anticipated recommended mitigation measures, following the submittal and acceptance of the Pacific Legacy report.

Please direct any questions or concerns to the Maui section of the SHPD at (808) 243-1285, (808) 243-4640, or (808) 243-4641.

Aloha,

Nancy McMahon, Deputy SHPO/State Archaeologist  
Historic Preservation Manager  
State Historic Preservation Division

JP:

C: Cultural Resources Commission, Dept. of Planning, 250 S. High Street, Wailuku, HI 96793  
Pacific Legacy, Attn: Mr. Paul Cleghorn, FAX (808) 263-4300

June 2, 2008

Mr. Danny Dias  
Staff Planner  
County of Maui, Department of Planning  
250 South High Street  
Wailuku, Hawai'i 96793

LOG NO: 2008.1688  
DOC NO: 0805JP49  
Archaeology

Dear Mr. Dias:

**SUBJECT: Chapter 6E-42 Historic Preservation Review [County/Planning] –  
Special Management Area Assessment Application for the  
Proposed Maui Community College: Science Building (SM1 2008/0008)  
Wailuku Ahupua'a, Wailuku District, Island of Maui  
TMK: (2) 3-8-007:040 (Portion)**

Thank you for the opportunity to provide comments on the aforementioned application, which was received by our staff on May 5, 2008. Our review is based on former correspondence, reports, maps, and aerial photographs maintained at the State Historic Preservation Division (SHPD). We sincerely apologize for the delay of this review.

The proposed scope of work involves the construction of a new science building and related infrastructure at the Maui Community College campus in Kahului. We have previously provided recommendations for different proposed actions on the campus and indicated that archaeological work is deemed necessary. The subject area is located in sand dunes, which are known to contain isolated and clustered traditional Native Hawaiian human burials and significant subsurface cultural deposits. World War II remnants and other historic features related to railroad and early plantation era activities have also been documented in the area.

Based on communication with Pacific Legacy (archaeological/cultural consulting firm); we understand the firm was contracted to conduct Archaeological Inventory Survey work consisting of subsurface testing specific to the area that will be affected by the proposed science building. SHPD staff archaeologist Jenny Pickett previously made a recommendation to Paul Cleghorn, of Pacific Legacy, that because subsurface testing was going to occur; we recommend controlled test trench excavations utilizing a small flat-edge bucket as opposed to auger core testing or any other type of invasive procedure. Auguring would not provide information sufficient for descriptive profile recordation and has the potential to damage any potentially sensitive subsurface cultural and/or skeletal remains. Because of the potential for human skeletal remains during inventory survey level testing, we recommended that consultation occur with the Maui Lanai Islands Burial Council prior to the commencement any archaeological test excavations.

To date, we have not received any information from Pacific Legacy regarding the status of the archaeological investigations or the field results. We anticipate the submittal of an acceptable Archaeological Inventory Survey report documenting the findings.

LINDA LINGLE  
CELEBRATING 10 YEARS



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAHOOLE, HAWAII 96707

LARRY H. THIELSON  
CHAIRMAN  
BOARD OF LAND AND NATURAL RESOURCES  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAHOOLE, HAWAII 96707

June 23, 2008

Paul L. Cleghorn, Ph.D.  
Pacific Legacy, Inc.  
3332 Uluniu Street  
Kailua, Hawaii 96734

LOG NO: 2008.1262  
DOC NO: 0806PC38  
Archaeology

Dear Dr. Cleghorn:

**SUBJECT: Chapter 6E-8 Historic Preservation Review – Archeological Assessment for the Proposed New Science Building at Maui Community College Wailuku Ahupua'a, Wailuku District, Maui Island  
TMK: (2) 3-8-007:040 pnr.**

Thank you for the opportunity to review this report, which our staff received on April 5, 2008 (Kirkendall 2008): *Archaeological Inventory Survey for the Proposed New Science Building at Maui Community College...Pacific Legacy, Inc.* Please accept our apologies for the delay in commenting.

The survey area as described in the report consists of a 40,095 square foot (0.37 hectare) portion of land situated at TMK (2) 3-8-007:040. Fieldwork was comprised of a pedestrian survey and the excavation of 12 backhoe trenches. The survey and sample trenching conducted for the current project produced no culturally significant sites, effectively turning the inventory survey into an assessment.

The background section acceptably establishes the *ahupua'a* settlement pattern and predicts the likely site pattern in the project area, with historical information provided to summarize pre- and post-Contact period land use and a summary of previous archaeological work conducted to provide a baseline for current work.

The report contains a majority of the required information as specified in HAR §13-276-5 regarding report documentation of inventory level field work completed in general; however, the following revisions are requested:

1. Cover Page and Abstract: please indicate the TMK of the subject parcel here for ease of reference – also, correct the title to indicate that the report is actually an archaeological assessment since no sites were identified, negating the requirement for a detailed background section;
2. Page i (Abstract): indicate the owner of the subject parcel, as per HAR §13-276-5 (2);
3. Page 5 (Archaeological Methods): information regarding the qualifications of the principal investigator as per HAR §13-276-5 (3)(c)(1), the number of field personnel and dates and duration of fieldwork as per HAR §13-276-5 (3)(c)(2) and the total number of backhoe trenches excavated needs to be included here;
4. Page 16: please correct typo with respect to SHP #50-50-04-4476 in second paragraph;
5. Page 18: please add "enibs" after 110 in third paragraph.

Paul L. Cleghorn, Ph.D.  
Page 2

We also concur that regardless of a lack of culturally significant finds, that precautionary monitoring is warranted during ground altering disturbance in excess of 18" below current grade within the project area, due to the potential that culturally significant subsurface deposits may still be found within the aeolian sand underlying it. Please note that the recommendation for monitoring will require the submission of a formal monitoring plan for SHPD review and acceptance in order for mitigation related to the proposed project to be complete.

We will accept this document with the provision that two bound hardcopies of the *revised* version be submitted to our office for archiving. One should be sent to O'ahu and the other to Maui with a copy of this letter attached.

Should you have any questions or comments regarding this review, please contact Patty Conte ([Patty.Conte@hawaii.gov](mailto:Patty.Conte@hawaii.gov)).

Aloha,

  
Nancy McMahon, Deputy SHPO/State Archaeologist  
State Historic Preservation Division

c: Jeff Hunt, Director, Dept. of Planning, 250 S. High Street, Wailuku, Hawaii 96793  
Dr. Melissa Kirkendall, Pacific Legacy Inc., 313 N. Market Street, Suite 1, Wailuku, Hawaii 96793





STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAPOLEI, HAWAII 96707

LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCES MANAGEMENT  
RUSSELL Y. TSUIH  
FIRST DEPUTY  
KEVIN C. KAWAHARA  
DEPUTY DIRECTOR - WATER  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF COMPLIANCE  
COMMISSION ON WATER RESOURCES MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RECREATION DEVELOPMENT  
DIVISION  
KAPALANAPA AND WAILUKU  
NATURE RESERVE SYSTEM  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAPOLEI, HAWAII 96707

LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
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RUSSELL Y. TSUIH  
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AQUATIC RESOURCES  
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COMMISSION ON WATER RESOURCES MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RECREATION DEVELOPMENT  
DIVISION  
KAPALANAPA AND WAILUKU  
NATURE RESERVE SYSTEM  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

July 10, 2008

Mr. David Tamanaha  
Vice Chancellor of Administrative Affairs  
Maui Community College  
310 Kaahumanu Avenue  
Kahului, Hawai'i 96732

LOG NO: 2008.1241  
DOC NO: 0806JP33  
Archaeology

Dear Mr. Tamanaha:

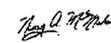
**SUBJECT: UPDATE Chapter 6E-42 Historic Preservation Review [County] –  
Draft Environmental Assessment for the  
Special Management Area Assessment Application for the  
Proposed Maui Community College: Science Building (SM1 2008/0008)  
Wailuku Ahupua'a, Wailuku District, Island of Maui  
TMK: (2) 3-8-007:040 (Portion)**

We have received additional information regarding the proposed project and wish to clarify our former comments (LOG NO: 2008.1688/ DOC NO: 0805JP49). We originally received the aforementioned application on May 5, 2008. Our prior correspondence indicated that we were awaiting the submittal of the Archaeological Inventory Survey report associated with the proposed project. Our office has received the Archaeological Inventory Survey report, which is currently awaiting review and acceptance. We apologize for any inconvenience or confusion our previous correspondence may have caused.

Archaeological monitoring has been advocated for the proposed project. We continue to recommend that no action be taken on the proposed project until we have accepted the Archaeological Inventory Survey report and Archaeological Monitoring plan.

We will forward any applicable updates, additional comments, and anticipated recommended mitigation measures, following the submittal and acceptance of the archaeological report and plan. Please direct any questions or concerns to the Maui section of the SHPD at: (808) 243-1285, (808) 243-4640, or (808) 243-4641.

Aloha,

 Digitally signed by Nancy A  
McMahon  
Date: 2008.07.10 04:47:51  
-10 00

Nancy McMahon  
Historic Preservation Manager  
State Historic Preservation Division

JP:

C: Cultural Resources Commission, Dept. of Planning, 250 S. High Street, Wailuku, HI 96793  
Pacific Legacy, Attn: Mr. Paul Cleghorn, FAX (808) 263-4300

July 14, 2008

Paul L. Cleghorn, Ph.D.  
Pacific Legacy, Inc.  
3332 Uluniu Street  
Kailua, Hawai'i 96734

LOG NO: 2008.2436  
DOC NO: 0807PC01  
Archaeology

Dear Dr. Cleghorn:

**SUBJECT: Chapter 6E-8 Historic Preservation Review – Archaeological Assessment  
for the Proposed New Science Building at Maui Community College  
Wailuku Ahupua'a, Wailuku District, Maui Island  
TMK: (2) 3-8-007:040 por.**

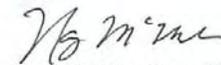
Thank you for the opportunity to review this revised report, which our staff received on July 3, 2008 (Kirkendall 2008): *Archaeological Assessment for the Proposed New Science Building at Maui Community College...*Pacific Legacy, Inc.

The report was first reviewed by SHPD staff on June 23 of 2008, resulting in a series of requested revisions (SHPD LOG NO: 2008.1262; DOC NO: 0806PC38). The most recent version of the report was reviewed in hardcopy format to confirm completion of previously requested revisions and suggestions.

The report now contains the required information as specified in HAR §13-276-5 regarding the documentation of inventory level field work resulting in an absence of culturally significant finds, and is acceptable.

Should you have any questions or comments regarding this letter, please contact Patty Conte ([Patty.J.Conte@hawaii.gov](mailto:Patty.J.Conte@hawaii.gov)).

Aloha,



Nancy McMahon, Deputy SHPO/State Archaeologist  
State Historic Preservation Division

c: Jeff Hunt, Director, Dept. of Planning, 250 S. High Street, Wailuku, Hawai'i 96793



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAPOLEI, HAWAII 96707

Laura H. Thielien  
Chairperson  
Board of Land and Natural Resources  
Commission on Water Resource Management

Russell Y. Tsuji  
First Deputy

Ken C. Kawahara  
Deputy Director - Water

Aquatic Resources  
Boating and Ocean Recreation  
Bureau of Contaminants  
Commission on Water Resource Management  
Conservation and Coastal Lands  
Conservation and Resources Enforcement  
Engineering  
Forestry and Wildlife  
Historic Preservation  
Kaohala Wetland Reserve Commission  
Land  
State Parks

Mr. David Tamanaha  
Page 2

submitted to the State Historic Preservation Division for review and acceptance, prior to the commencement of any ground-altering activities. An archaeological monitoring plan must contain the following nine specifications: (1) The kinds of remains that are anticipated and where in the construction area the remains are likely to be found; (2) How the remains and deposits will be documented; (3) How the expected types of remains will be treated; (4) The archaeologist(s) conducting the monitoring has (have) the authority to halt the construction in the immediate area of the find in order to carry out the plan; (5) A coordination meeting between the archaeologist and construction crew is scheduled, so that the construction team is aware of the plan; (6) What laboratory work will be done on remains that are collected; (7) A schedule of report preparation; (8) Details concerning the archiving of any collections that are made; and (9) An acceptable report documenting the findings of the monitoring activities shall be submitted to the State Historic Preservation Division for review upon 180 days following the completion of the proposed undertaking.

July 23, 2008

Mr. David Tamanaha  
Vice Chancellor of Administrative Affairs  
Mau Community College  
310 Kaahumanu Ave.  
Kahului, Hawai'i 96732

LOG NO: 2008.1241  
DOC NO: 0807JP27  
Archaeology



Dear Mr. Tamanaha:

**SUBJECT: Chapter 6E-42 Historic Preservation Review [County/State] –  
Draft Environmental Assessment for the  
Proposed Maui Community College Science Building  
Wailuku Ahupua'a, Wailuku District, Island of Maui  
TMK (2) 3-8-007:040 (Portion)**

- 2) Please notify our Maui and O'ahu offices, via facsimile, at onset and completion of the project and monitoring program.

We anticipate the submittal of an archaeological monitoring plan for the proposed project. Please direct any questions or concerns to the Maui Office Annex of the State Historic Preservation Division at (808) 243-4640, (808) 243-4641, or (808) 243-1285.

Aloha,

Nancy McMahon  
Historic Preservation Manager  
State Historic Preservation Division

JP:

c: OEQC, 235 South Beretania Street, Suite 702, Honolulu, HI 96813  
Helber Hastert & Fee Planners ATTN: Gail Renard (FAX) 545-2050  
Dept of Planning, FAX 270-7634  
Maui Cultural Resources Commission, Dept. of Planning, 250 S. High Street, Wailuku, HI 96793

Thank you for the opportunity to review and comment on the Environmental Assessment, which was received by our staff on April 4, 2008. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division (SHPD). We provided an information update in response to the special management area assessment application for the project. Historic properties have previously been documented throughout the campus. We apologize for the delay of this review.

The subject action consists of the proposed construction of a new science building on approximately 2.9 acres of land located at the Maui Community College campus in Kahului. We have previously provided recommendations for different proposed actions on the campus and indicated that archaeological work is deemed necessary (LOG NO: 2008.1688/ DOC NO: 0806JP22 etc.). The subject area is located in sand dunes, which are known to contain isolated and clustered traditional Native Hawaiian human burials and significant subsurface cultural deposits. World War II remnants and other historic features related to railroad and early plantation era activities have also been documented in the area.

We accepted an Archaeological Inventory Survey report related to the proposed project (DOC NO: 0806PC38 and LOG NO: 2008.2436/ DOC NO: 0807PC01). We concurred with the recommendation for archaeological monitoring. We believe any proposed ground altering activities in the parcel may impact undocumented surface and/or sub-surface historic properties. Archaeological monitoring has been recommended for the proposed project; therefore, we recommend the following conditions be attached to the proposed plans:

- 1) A qualified archaeological monitor(s) shall be present during all ground-altering activities conducted in the subject area in order to document any historic properties which may be encountered during the proposed undertaking and to provide mitigation measures as necessary. An archaeological monitoring plan will need to be

**Helber Hastert & Fee**  
Planners, Inc.

September 30, 2008

Ms. Nancy McMahon  
Historic Preservation Manager  
State of Hawaii  
Department of Land and Natural Resources  
Historic Preservation Division  
601 Kamokila Boulevard, Room 555  
Kapolei, HI 96707



**Maui Community College Science Building  
Draft Environmental Assessment and  
Special Management Area Use Permit Application #SM1 2008/0008  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Ms. McMahon,

Thank you for your division's comment letters of June 2 (Log No. 2008.1688/Doc No. 0805JP49), and June 26, 2008 (Log No. 2008.2231/Doc. No. 0806JP22) regarding the subject project's Special Management Area Use Permit (SMAUP) application and letter of July 23, 2008 (Log No. 2008.1241/Doc No. 0805JP27) on the project's Draft Environmental Assessment (EA). We offer the following responses to your comments on both the SMAUP and Draft EA.

**Archaeological Inventory Survey**

An archaeological inventory survey (AIS) for the subject action was submitted for review to your division by the AIS preparer, Pacific Legacy, Inc., on April 3, 2008. Your division responded to Pacific Legacy, Inc. with a letter requesting minor revisions to the document (dated June 23, 2008 Log No. 2008.1262/Doc. No. 0806PC38). The final AIS was submitted by the AIS preparer on July 1, 2008. By letter to Pacific Legacy, Inc. dated July 14, 2008, your office confirmed the acceptability of the revised report under HAR §13-276-5.

**Archaeological Monitoring**

As concurred with in your letter of June 23, 2008 (Log No. 2008.1262, Doc No. 0806PC38), an archaeological monitor will be present during all ground altering activities that exceed a depth of 18-inches below the current ground surface to mitigate impacts to historic properties that may be identified in the subsurface deposit. In accordance with Section 6E, HRS, if any significant cultural deposits or human skeletal remains are encountered, the State Historic Preservation Division of the Department of Land and Natural Resources will be contacted. The Office of Hawaiian Affairs will also be contacted if any Native Hawaiian burials are encountered. We note that your division will require the submission of a formal monitoring plan for SHPD review and acceptance for completion of mitigation related to the proposed project. An archaeological

Ms. Nancy McMahon  
Department of Land and Natural Resources, State Historic Preservation Division  
September 30, 2008  
Page 2

monitoring plan will be prepared and submitted for your division's review prior to application for building permits.

We appreciate your input and participation in the SMAUP and EA processes. All of your agency's comment letters received on the SMAUP and Draft EA will be appended to the Final EA, along with this response.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Fee', written over a light blue background.

Thomas A. Fee, AICP  
President

Cc: Office of Environmental Quality Control  
Mr. Jeffrey S. Hunt, Maui County Planning Director  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.  
Mr. Paul Cleghorn, Pacific Legacy, Inc.

**APPENDIX B**  
Correspondence

**APPENDIX B.1**  
Pre-Assessment Consultation Correspondence

LINDA LINGLE  
GOVERNOR



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

RUSS K. SAITO  
COMPTROLLER  
BARBARA A. ANNIS  
DEPUTY COMPTROLLER  
(P)1038.8

FEB - 5 2008



Ms. Gail Renard  
Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813

Dear Ms. Renard:

Subject: Maui Community College New Science Building  
Draft Environmental Assessment Pre-Assessment Consultation  
Wailuku District, Island of Maui, Hawaii  
TMK (2) 3-8-007:040

Thank you for the opportunity to review the Draft Environmental Assessment Pre-Assessment Consultation for the Maui Community College New Science Building project. The project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer.

If you have any questions, please have your staff call Mr. Clarence Kubo of the Planning Branch at 586-0488.

Sincerely,

ERNEST Y. W. LAU  
Public Works Administrator

CKK:mo

Helber Hastert & Fee  
Planners, Inc.

March 25, 2008

Mr. Ernest Y.W. Lau  
Public Works Administrator  
State of Hawaii  
Department of Accounting and General Services  
P.O. Box 119  
Honolulu, HI 96810



Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)

Dear Mr. Lau,

Thank you for your letter dated February 5, 2008 (P)1038.8 regarding the subject project. We acknowledge your comment that the proposed project does not impact any of the Department of Accounting and General Services' projects and existing facilities.

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at grenard@hhf.com.

Sincerely,

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

LINDA LINGLE  
GOVERNOR OF HAWAII



LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

February 21, 2008

Helber, Hastert & Fee Planners  
733 Bishop Street Suite 2590  
Honolulu, Hawaii 96813

Attention: Ms. Gail Renard

Gentlemen:

Subject: Pre-assessment consultation Draft Environmental Assessment for Maui  
Community College New Science Building, Wailuku, Maui, Tax Map  
Key; (2) 3-8-7:40

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Engineering Division, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

for Morris M. Atta  
Administrator

LINDA LINGLE  
GOVERNOR OF HAWAII

08 JAN 31 PM 04:28 RECEIVED



LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

January 31, 2008

MEMORANDUM

TO: DLNR Agencies:  
 Div. of Aquatic Resources  
 Div. of Boating & Ocean Recreation  
 Engineering Division  
 Div. of Forestry & Wildlife  
 Div. of State Parks  
 Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division - District

FROM: for Morris M. Atta *Charlene*  
SUBJECT: Pre-assessment consultation Draft Environmental Assessment for Maui  
Community College New Science Building  
LOCATION: Wailuku, Maui, TMK: (2) 3-8-7:40  
APPLICANT: Helber, Hastert & Fee Planners

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 15, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *Gail Renard*  
Date: 2/6/08

RECEIVED  
LAND DIVISION  
2008 FEB -6 A 11:28  
DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LD/MorrisAtta

Ref.: PreConDEAMauiComCollege  
Maui.393

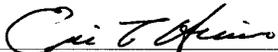
COMMENTS

- ( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone \_\_\_\_.
- (X) **Please take note that according to the Flood Insurance Rate Map (FIRM), the project site is located in Zones C and V23. The National Flood Insurance Program does not regulate activities under Zone C, however, it does regulate developments within Zone V23 as indicated in bold letters below.**
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_.
- (X) **Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.**

**Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:**

- ( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
- ( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
- (X) **Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.**
- ( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- ( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
- (X) **The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.**
- ( ) Additional Comments: \_\_\_\_\_
- ( ) Other: \_\_\_\_\_

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed:   
ERIC T. HIRANO, CHIEF ENGINEER

Date: 2/6/08

**Helber Hastert & Fee**  
Planners, Inc.

March 25, 2008

Mr. Morris M. Atta, Administrator  
State of Hawaii  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, HI 96809



**Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Atta,

Thank you for your letter dated February 21, 2008 regarding the subject project. We acknowledge your Engineering Division's comments (Ref: PreConDEA MauiComCollege Maui.393) regarding the subject parcel's location in Zones C and V23. Although the portions of the tax map parcel in which the project area is located are within Zones C and Special Flood Hazard Area V23, the specific construction area is only within Zone C (areas of minimal flooding). This was confirmed by the Maui County Planning Department. The relevant Flood Insurance Rate Map panel will be reproduced in the Draft Environmental Assessment.

We also acknowledge the Engineering Division's comment that the applicant should provide water demands and calculations to the Engineering Division. The project's design team will provide the required information when available.

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at grenard@hhf.com.

Sincerely,

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

Pacific Guardian Center • 733 Bishop Street, Suite 2590 • Honolulu, Hawaii 96813

Tel. 808.545.2055 • Fax 808.545.2050 • www.hhf.com • e-mail: info@hhf.com

PHONE (808) 594-1888



FAX (808) 594-1865

**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

February 13, 2008

HRD08/3394

Gail Renard  
Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, HI 96813

**RE: Draft Environmental Assessment Pre-Assessment Consultation for the Maui Community College New Science Building, Wailuku District, Island of Maui, Hawai'i, TMK (2) 3-8-007: 040**

Dear Gail Renard,

The Office of Hawaiian Affairs (OHA) is in receipt of your January 28, 2008 submission and offers the following comments:

Our staff will be looking forward to the forthcoming Draft Environmental Assessment for the University of Hawai'i's Maui Community College (MCC) new science building at its Kahului Campus on the Island of Maui.

The Draft Environmental Assessment (DEA), in accordance with Chapter 343 of the Hawaii Revised Statutes (HRS), should include a Cultural Impact Assessment (CIA). In accordance with the requirement of Act 50, Session Laws of Hawaii 2000, a CIA shall include information relating to the practices and beliefs of the Native Hawaiians who once inhabited this area, and it is recommended that community involvement be included in this assessment.

OHA asks that, in accordance with Section 6E-46.6, Hawaii Revised Statutes and Chapter 13-300, Hawaii Administrative Rules, if the project moves forward, and if any significant cultural deposits or human skeletal remains are encountered, work shall stop in the immediate vicinity, and the State Historic Preservation Division (SHPD/DLNR) shall be contacted. OHA would also like to be notified.

Gail Renard  
Helber, Hastert & Fee Planners  
February 13, 2008  
Page 2

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jason Jeremiah, Policy Advocate-Preservation, Native Rights, Land and Culture, at (808) 594-1816 or [jasonj@oha.org](mailto:jasonj@oha.org).

Aloha,

A handwritten signature in black ink, appearing to read "Clyde W. Namu'o".

Clyde W. Namu'o  
Administrator

**Helber Hastert & Fee**  
*Planners, Inc.*

March 25, 2008

Mr. Clyde W. Nāmu'o, Administrator  
State of Hawaii  
Office of Hawaiian Affairs  
711 Kapi'olani Boulevard, Suite 500  
Honolulu, HI 96813



**Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Nāmu'o,

Thank you for your letter dated February 13, 2008 (HRD08/3394) regarding the subject project. We offer the following responses to your comments.

The Draft Environmental Assessment (EA) will contain an assessment of the proposed actions potential effects on cultural practices of the community and State, as required by Hawaii Revised Statutes Chapter 343. As recommended by the project archaeologist, an archaeological monitor will be present during ground altering activities that exceed a depth of 18 inches. If any significant cultural deposits or human skeletal remains are encountered, the State Historic Preservation Division of the Department of Land and Natural Resources and the Office of Hawaiian Affairs will be notified.

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at [grenard@hhf.com](mailto:grenard@hhf.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Fee', written over a light blue horizontal line.

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

LINDA LINGLE  
GOVERNOR



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

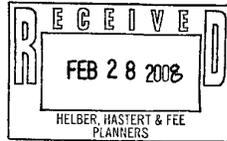
February 25, 2008

BRENNON T. MORIOKA  
INTERIM DIRECTOR

Deputy Directors  
MICHAEL D. FORMBY  
FRANCIS PAUL KEENO  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2781



Mr. Thomas A. Fee, AICP  
Principal  
Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813

Attention: Gail Renard

Dear Mr. Fee:

Subject: Maui Community College (MCC) Science Building  
Draft Environmental Assessment Pre-Assessment Consultation  
TMK: 3-8-007: 040

Thank you for requesting the Department of Transportation's (DOT) review of the proposed project, which replaces an existing, aging facility with a new, two-story, 40,000 square-foot science building. DOT's comments are as follows:

1. The proposed project will not significantly impact State transportation facilities in the area.
2. DOT, however, remains interested in the projected number of students and staff (teaching administrative and support/maintenance) and the determination of the resultant traffic impacts to State highways (Kaahumanu Avenue and Kahului Beach Road). This determination will enable the proper planning and implementation of highway improvements.

We appreciate the opportunity to provide comments.

Very truly yours,

BRENNON T. MORIOKA, PH.D., P.E.  
Interim Director of Transportation

Helber Hastert & Fee  
Planners, Inc.

March 25, 2008

Brennon Morioka, Ph.D., P.E.  
Interim Director  
State of Hawaii Department of Transportation  
869 Punchbowl Street  
Honolulu, HI 96813-5097



Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)

Dear Dr. Morioka,

Thank you for your letter dated February 25, 2008 (STP 8.2781) regarding the subject project. We acknowledge your comments that the proposed project will not significantly impact State transportation facilities in the area. We also note that the Department is interested in the projected number of students, faculty and staff and the determination of resulting impacts to State highways (Kaahumanu Avenue and Kahului Beach Road). A discussion of Maui Community College's long-term development and anticipated enrollment will be discussed in the Draft Environmental Assessment (EA).

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at grenard@hhf.com.

Sincerely,

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

CHARMAINE TAVARES  
MAYOR



NEAL A. BAL  
DEPUTY CHIEF

**COUNTY OF MAUI**  
DEPARTMENT OF FIRE AND PUBLIC SAFETY  
FIRE PREVENTION BUREAU

780 ALUA STREET  
WAILUKU, HAWAII 96793  
(808) 244-9161  
FAX (808) 244-1363  
February 29, 2008

Gail Renard  
Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, HI 96813

Subject: Draft EA , Maui Community College New Science Building  
TMK (2)3-8-007:040

Dear Ms. Renard,

Thank you for the opportunity to comment on the draft environmental assessment for the proposed science building at Maui Community College. Our office does not have any specific comments at this time. We will have an opportunity to review the project in detail during the building permit process.

Please feel free to contact myself at 244-9161 x29 if there are any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Val F. Martin".

Valeriano F. Martin  
Captain  
Fire Prevention Bureau

**Helber Hastert & Fee**  
Planners, Inc.

March 25, 2008

Captain Valeriano F. Martin  
County of Maui  
Department of Fire and Public Safety  
Fire Prevention Bureau  
780 Alua Street  
Wailuku, HI 96793



**Maui Community College Science Building**  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)

Dear Captain Martin,

Thank you for your letter dated February 29, 2008 regarding the subject project. We note that you have no comments on this project at this time and that your department will review the project during the building permit process.

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at grenard@hhf.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas A. Fee".

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

CHARMAINE TAVARES  
Mayor



TAMARA HORCAJO  
Director

ZACHARY Z. HELM  
Deputy Director

(808) 270-7230  
Fax (808) 270-7934

**DEPARTMENT OF PARKS & RECREATION**

700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

February 20, 2008

Helber, Hastert, & Fee Planners  
Attention: Ms. Gail Renard  
733 Bishop Street Suite 2590  
Honolulu, Hawaii - 96813

Dear Ms. Gail Renard

Subject: Maui Community College New Science Building Draft Environmental  
Assessment for Pre-Assessment Consultation TMK (2) 3-8-007:040

We have reviewed the Maui Community College New Science Building Draft  
Environmental Assessment for Pre-Assessment Consultation, and we have no comments  
or objections to the subject project.

Thank you for the opportunity to comment. Please contact me or Patrick Matsui,  
Chief of Planning and Development, at 270-7387 if there are any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Tamara Horcajo".

TAMARA HORCAJO  
Director, Parks & Recreation

xc: Patrick Matsui, Chief of Planning & Development

TH:PM:tk

**Helber Hastert & Fee**  
Planners, Inc.

March 25, 2008

Ms. Tamara Horcajo, Director  
County of Maui  
Department of Parks and Recreation  
700 Hali'a Nakoa Street, Unit 2  
Wailuku, HI 96793



**Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Ms. Horcajo,

Thank you for your letter dated February 20, 2008 regarding the subject project. We note  
that you have no comments or objections to this project.

We appreciate your input and participation in the EA process. If you have any questions,  
please contact Gail Renard, project planner, at (808) 545-2055 or by email at  
grenard@hhf.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas A. Fee".

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.



**CHARMAINE TAVARES**  
MAYOR

OUR REFERENCE  
YOUR REFERENCE

**POLICE DEPARTMENT**  
COUNTY OF MAUI

55 MAHALANI STREET  
WAILUKU, HAWAII 96793  
(808) 244-6400  
FAX (808) 244-6411



**THOMAS M. PHILLIPS**  
CHIEF OF POLICE

**GARY A. YABUTA**  
DEPUTY CHIEF OF POLICE

January 31, 2008



Ms. Gail Renard, Project Planner  
Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, HI 96813

Dear Ms. Renard:

**SUBJECT:** Maui Community College New Science Building D.E.A. Pre-Assessment Consultation Wailuku District, Island of Maui, Hawai'i  
TMK (2) 3-8-007:040

Thank you for your letter of January 28, 2008, requesting comments on the above subject.

After reviewing the project summary, we have no concerns or issues to offer. Thank you for giving us an opportunity to comment on this project.

Very truly yours,

Assistant Chief Wayne T. Ribao  
for: **THOMAS M. PHILLIPS**  
Chief of Police

c: Jeffrey Hunt, Maui County Planning Department

**Helber Hastert & Fee**  
Planners, Inc.

March 25, 2008

Thomas M. Phillips, Chief of Police  
County of Maui  
Police Department  
55 Mahalani Street  
Wailuku, HI 96793



**Maui Community College Science Building**  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)

Dear Chief Phillips,

Thank you for your letter dated January 31, 2008 regarding the subject project. We note that you have no concerns regarding this project.

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at grenard@hhf.com.

Sincerely,

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

CHARMAINE TAVARES  
Mayor

MILTON M. ARAKAWA, A.I.C.P.  
Director

MICHAEL M. MIYAMOTO  
Deputy Director



COUNTY OF MAUI  
DEPARTMENT OF PUBLIC WORKS  
AND ENVIRONMENTAL MANAGEMENT  
**DEVELOPMENT SERVICES ADMINISTRATION**  
250 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793  
February 15, 2008

RALPH M. NAGAMINE, L.S., P.E.  
Development Services Administration

DAVID TAYLOR, P.E.  
Wastewater Reclamation Division

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

TRACY TAKAMINE, P.E.  
Solid Waste Division

**Helber Hastert & Fee**  
*Planners, Inc.*

March 25, 2008

Mr. Milton M. Arakawa, AICP  
Director  
County of Maui  
Department of Public Works  
250 South High Street  
Wailuku, HI 96793



**Maui Community College Science Building**  
**Environmental Assessment**  
**Wailuku District, Maui, Hawaii**  
**TMK: (2) 3-8-007:040 (por.)**

Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813  
Attn: Gail Renard

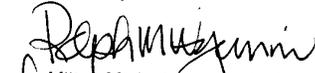
Subject: DRAFT ENVIRONMENTAL ASSESSMENT PRE-ASSESSMENT  
CONSULTATION FOR MAUI COMMUNITY COLLEGE NEW  
SCIENCE BUILDING  
TMK (2) 3-8-007:040

Dear ms. Renard:

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

Please call Michael Miyamoto at 270-7845 if you have any questions regarding  
this letter.

Sincerely,

  
Milton M. Arakawa, A.I.C.P.  
Director of Public Works

Dear Mr. Arakawa,

Thank you for your letter dated February 15, 2008 regarding the subject project. We note  
that you have no comments on this project at this time.

We appreciate your input and participation in the EA process. If you have any questions,  
please contact Gail Renard, project planner, at (808) 545-2055 or by email at  
grenard@hhf.com.

Sincerely,



Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

ls S:\LUCA\ICZM\Preasses\_Con\_MCC\_Science\_Bldg\_DEA\_38007040\_ls.wpd  
xc: Highways Division  
Engineering Division

CHARMAINE TAVARES  
Mayor



**DEPARTMENT OF WATER SUPPLY**  
COUNTY OF MAUI  
200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793-2155  
www.mauewater.org

JEFFREY K. ENG  
Director  
ERIC H. YAMASHIGE, PE., L.S.  
Deputy Director



Thomas Fee  
Page 2

March 3, 2008

Mr. Thomas A. Fee, AICP  
Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813  
Attn: Gail Renard

Subject: Maui Community College New Science Building  
Draft Environmental Assessment Pre-Assessment Consultation  
Wailuku District, Island of Maui, Hawaii  
TMK (2) 3-8-007:040

Dear Mr. Fee:

Thank you for the opportunity to comment on this Draft Environmental Assessment (DEA). We have the following comments:

#### Source Availability and Consumption

The DEA should identify sources and potable and non-potable demand for the proposed expansion. The project area is served by the Central Maui System. The main sources of water for the Central system are the designated Iao aquifer, Waihee aquifer, the Iao tunnel and the Iao-Waikapu Ditch. New source development projects include Maui Lani Wells, Waikapu South Well and Waiale Surface Water Treatment Plant. Maui Community College is served by two 4" meters and one 2" meter. Current consumption for Maui Community College is 59,563 GPD. There is currently no additional source available according to system standards on the Central Maui System. Should an additional or larger meter be required, the Department may delay issuance of meters until new sources are on line. The Department will not issue temporary construction meters for Central Maui projects.

#### System Infrastructure

There is a 12-inch waterline running along and perpendicular to Kaahumanu Avenue which terminates southeast of the proposed project. A private 12-inch waterline with two private hydrants border the project on the north. Three DWS fire hydrants are located southeast of the proposed building. The applicant will be required to provide for water service and fire protection

*"By Water All Things Find Life"*

in accordance with system standards. Fire flow and domestic calculations will be required in the building permit process.

#### Conservation

To alleviate demand on the Central Maui system, we recommend that the following conservation measures be included in the project design or noted in the DEA:

Use Non-potable Water: Use brackish or reclaimed water for landscaping and other non-potable purposes when available. Reclaimed water, readily available at the Kahului Sewage Treatment Plant, or brackish water should be used for dust control and landscaping during construction.

Use Climate-adapted Plants: Outdoor irrigation has a significant impact on demand in the Maui Community College area. We recommend limiting turf areas and using native climate-adapted plants for all landscaping. The project is located in Plant Zone 5. Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species.

Eliminate Single-Pass Cooling: Single-pass, water-cooled systems should be eliminated per Maui County Code Subsection 14.21.20. Although prohibited by code, single-pass water cooling is still manufactured into some models of air conditioners, freezers, and commercial refrigerators.

Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20A.680 requires the use of low-flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice-makers and other units are also available.

Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. The applicant should establish a regular maintenance program.

Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evapo-transpiration rates at the site. As an alternative, provide the more automated, soil-moisture sensors on controllers.

#### Pollution Prevention

In order to protect ground and surface water sources, we encourage Best Management Practices (BMPs) designed to minimize infiltration and runoff from construction. The mitigation measures below should be included in the DEA and be implemented during construction:

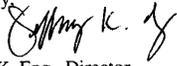
1. Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the water.
2. Properly and promptly dispose of all loosened and excavated soil and debris material from drainage structure work.
3. Retain ground cover until the last possible date.
4. Stabilize denuded areas by sodding or planting as soon as possible. Replanting should include soil amendments, fertilizers and temporary irrigation. Use high seeding rates to ensure rapid stand establishment.
5. Avoid fertilizers and biocides, or apply only during periods of low rainfall to minimize chemical run-off.

The Department of Water Supply is an Equal Opportunity provider and employer. To file a complaint of discrimination, write: USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410. Or call (202) 720-5964 (voice and TDD)

6. Keep run-off on site.

Should you have any questions, please contact our Water Resources and Planning Division at 808-244-8550.

Sincerely,



Jeffrey K. Eng, Director  
mlb

cc: engineering division

Attachments:  
A Checklist of Water Conservation Ideas for Schools and Public Buildings  
Low Flow Fixture Ordinance  
Plant Brochure: "Saving Water in the Yard"

## water conservation for Schools and Public Buildings

### General Suggestions

- Increase employee, faculty and student awareness of water conservation. Brochures explaining how to conserve water at home are available from the Board of Water Supply.
- Read water meter daily to monitor the success of water conservation efforts.
- Conduct contests for employees, students and faculty (e.g., posters, slogans or conservation ideas); locate suggestion boxes in prominent areas.
- Install signs that encourage water conservation in restrooms-leaflets suitable for display or distribution are available from the Board of Water Supply.
- When cleaning with water is necessary, use budgeted amounts.

### Physical Plant - Building Maintenance

- Minimize the water used in cooling equipment, such as air compressors, in accordance with the manufacturer's recommendations.
- Reduce the load on air conditioning units by shutting air conditioning off when and where it is not needed.
- Maintain insulation on hot water pipes.
- Check water supply system for leaks, and turn off any unnecessary flows.
- Repair dripping faucets, showers, and continuously running toilets.
- Avoid excessive boiler and air conditioner blowdown. Monitor total dissolved solids levels, and blowdown only when needed.
- Reduce the water used in toilet flushing by either adjusting the vacuum flush mechanism or installing toilet tank displacement devices (dams, bottles, or bags).
- Instruct clean-up crews to use less water for mopping.
- Change window cleaning schedule from periodic to an on-call, as required bases.
- Install flow reducers and faucet aerators in all plumbing fixtures.
- As appliances or fixtures wear out, replace with water-saving models.

### Cafeteria and Food Service

- Turn off the continuous flow used to clean the drain trays of the coffee/milk/soda beverage island; clean the trays only as needed.
- Turn dishwashers off when dishes are not being processed. Wash full loads only. Replace spray heads to reduce water flow.
- Recycle rinse water from the dishwasher or recirculate it to the garbage disposer.
- Presoak utensils and dishes in ponded water instead of using a running water rinse.

- Avoid thawing foods under running water by using other available alternatives, including microwave ovens.
- Wash vegetables in ponded water, do not let water run in prep sink.
- Minimize use of ice machines and adjust them to dispense less ice.
- Use water from the steam table in place of fresh water to wash down the cook's area.

### Pool

- Lower pool water to reduce amount of water splashed out.
- Reduce amount of water used to backflush pool filters.
- Use a pool cover to reduce evaporation when pool is not being used.

### Laundry

Water conservation ideas for Laundries can be obtained from the Board of Water Supply.

### Exterior Areas

- Wash autos, buses and trucks less often.
- Discontinue using water to clean sidewalks, driveways, loading docks, and parking lots. Consider using brooms or motorized sweepers.
- Avoid landscape fertilizing and pruning that stimulate excessive growth.
- Remove unhealthy plants so that remaining plants can benefit from the water saved.
- In many cases, older, established plants require only infrequent irrigation. Look for indications of water need such as wilt, change of color, or dry soils.
- Limit landscaping additions and alterations. In the future, design landscapes which require less water. Incorporate xeriscape (water management) techniques into the design.
- Install soil moisture overrides or timers on sprinkler systems. Time waterings, when possible, to occur in the morning when wind and evaporation are lowest. Irrigation equipment should apply water uniformly.
- Investigate the advantages of installing drip irrigation systems.
- Mulch around plants to reduce evaporation and discourage weeds.
- Remove thatch and aerate turf to encourage the movement of water to the root zone.
- Begin a flexible watering schedule, watering only when needed and not on windy or rainy days.
- Avoid runoff, and make sure sprinklers cover just the lawn or garden, not sidewalks, driveways or gutters.

ORDINANCE NO. 2108

BILL NO. 6 (1992)

Draft 1

A BILL FOR AN ORDINANCE AMENDING  
CHAPTER 16.20 OF THE MAUI COUNTY  
CODE, PERTAINING TO THE PLUMBING CODE

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. Title 16 of the Maui County Code is amended by adding a new section to Chapter 10 of the Uniform Plumbing Code to be designated and to read as follows:

"16.20.675 Section 1050 added. Chapter 10 of the Uniform Plumbing Code is amended by adding a new section, pertaining to low-flow water fixtures and devices, to be designated and to read as follows:

Sec. 1050 Low-flow water fixtures and devices. (a) This section establishes maximum rates of water flow or discharge for plumbing fixtures and devices in order to promote water conservation.

(b) For the plumbing fixtures and devices covered in this section, manufacturers or their local distributors shall provide proof of compliance with the performance requirements established by the American National Standards Institute (ANSI) and such other proof as may be required by the director of public works. There shall be no charge for this registration process.

(c) Effective December 31, 1992, only plumbing fixtures and devices specified in this section shall be offered for sale or installed in the County of Maui, unless otherwise indicated in this section. All plumbing fixtures and devices which were installed before December 31, 1992, shall be allowed to be used, repaired or replaced after December 31, 1992.

(1) Faucets (kitchen): All kitchen and bar sink faucets shall be designed, manufactured, installed or equipped with a flow control device or aerator which will prevent a water flow rate in excess of two and two-tenths gallons per minute at sixty pounds per square inch of water pressure.

(2) Faucets (lavatory): All lavatory faucets shall be designed, manufactured, installed or equipped with a flow control device or aerator which will prevent a water flow rate in excess of two and two tenths gallons per minute at sixty pounds per square inch of water

pressure.

(3) Faucets (public rest rooms): In addition to the lavatory requirements set forth in paragraph (2), lavatory faucets located in rest rooms intended for use by the general public shall be of the metering or self-closing types.

(4) Hose bibbs: Water supply faucets or valves shall be provided with approved flow control devices which limit flow to a maximum three gallons per minute.

EXCEPTIONS: (A) Hose bibbs or valves not used for fixtures or equipment designated by the director of public works.

(B) Hose bibbs, faucets, or valves serving fixed demand, timing, or water level control appliances, and equipment or holding structures such as water closets, pools, automatic washers, and similar equipment.

(5) Showerheads: Showerheads, except where provided for safety or emergency reasons, shall be designed, manufactured, or installed with a flow limitation device which will prevent a water flow rate in excess of two and one-half gallons per minute at eighty pounds per square inch of water pressure. The flow limitation device must be a permanent and integral part of the showerhead and must not be removable to allow flow rates in excess of two and one-half gallons per minute or must be mechanically retained requiring force in excess of eight pounds to remove.

(6) Urinals: Urinals shall be designed, manufactured, or installed so that the maximum flush will not exceed one gallon of water. Adjustable type flushometer valves may be used provided they are adjusted so the maximum flush will not exceed one and six tenths gallons of water.

(7) Water closets (toilets): Water closets shall be designed, manufactured, or installed so that the maximum flush will not exceed one and six tenths gallons of water.

(c) Beginning December 31, 1992, it is unlawful to sell or install any plumbing fixtures or devices not specified in this section, except as permitted under this section.

(e) The director of public works may exempt the use of low-flow water fixtures and devices if there is a finding that the use of such fixtures and devices would not be consistent with accepted engineering practices and would be detrimental to the public health, safety and welfare.

(f) Any person violating this section shall be fined \$250 for each violation and shall correct all instances of non-compliance for which a citation is issued. Violation of this section shall constitute a violation as defined in section 701-107 Hawaii Revised Statutes and shall be enforceable by employees of the department of public works. The foregoing fine may also be imposed in a civil, administrative proceeding pursuant to Rules and Regulations adopted by the department of public works in accordance with chapter 91 Hawaii Revised Statutes."

SECTION 2. New material is underscored. In printing this bill, the County Clerk need not include the underscoring.

SECTION 3. This ordinance shall take effect upon its approval.

APPROVED AS TO FORM  
AND LEGALITY:

Howard M. Fukushima  
HOWARD M. FUKUSHIMA  
Deputy Corporation Counsel  
County of Maui  
c:\wp51\ords\flows4\pk

- 3 -

WE HEREBY CERTIFY that the foregoing BILL NO. 6 (19 92 ), Draft 1

1. Passed FINAL READING at the meeting of the Council of the County of Maui, State of Hawaii, held on the 1st day of May, 1992, by the following votes:

Howard S. KIHUNE Chair	Patrick S. KAWANO Vice-Chair	Vince G. BAGDOY, Jr.	Gerr HOKAMA	Alice L. LEE	Ricardo MEDINA	Wayne K. NISHIKI	Joe S. TANAKA	Leinani TERUYA DRUMMOND
Aye	Aye	Excused	Excused	Aye	Aye	Aye	Aye	Aye

2. Was transmitted to the Mayor of the County of Maui, State of Hawaii, on the 1st day of May, 1992.

DATED AT WAILUKU, MAUI, HAWAII, this 1st day of May, 1992.

Howard S. Kihune  
HOWARD S. KIHUNE, CHAIR  
Council of the County of Maui

Daryl T. Yamamoto  
DARYL T. YAMAMOTO, COUNTY CLERK  
County of Maui

THE FOREGOING BILL IS HEREBY APPROVED THIS 5<sup>th</sup> DAY OF MAY, 1992.

Linda Crockett Lingle  
LINDA CROCKETT LINGLE, MAYOR  
County of Maui

I HEREBY CERTIFY that upon approval of the foregoing BILL by the Mayor of the County of Maui, the said BILL was designated as ORDINANCE NO. 2108 of the County of Maui, State of Hawaii.

Daryl T. Yamamoto  
DARYL T. YAMAMOTO, COUNTY CLERK  
County of Maui

Passed First Reading on January 17, 1992.  
Effective date of Ordinance May 5, 1992.

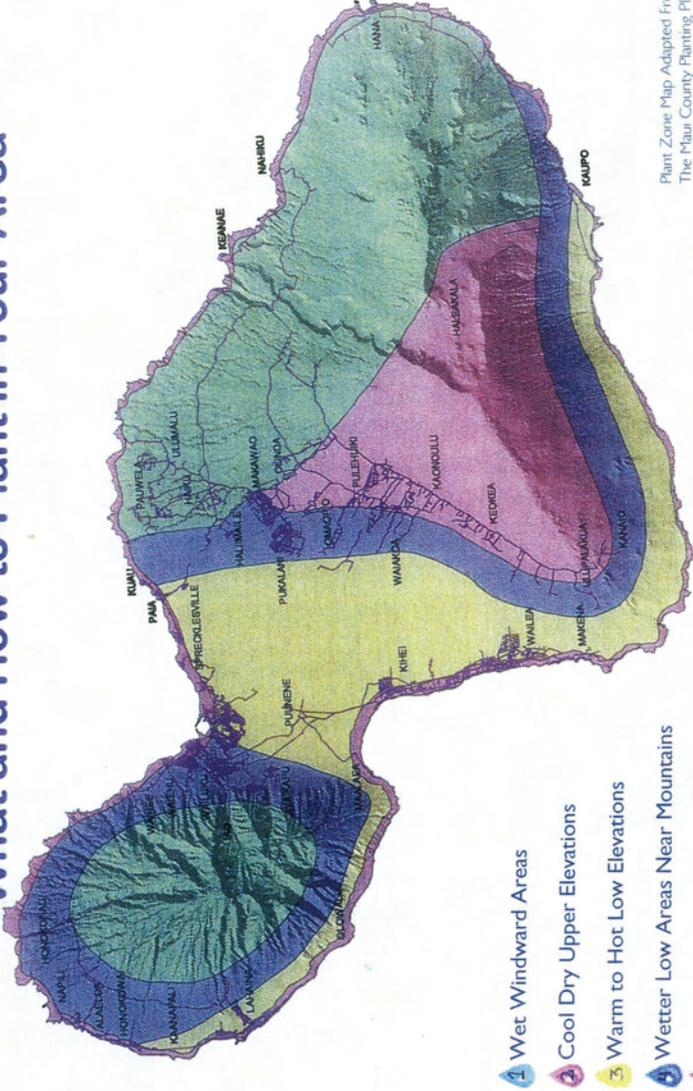
I HEREBY CERTIFY that the foregoing is a true and correct copy of Ordinance No. 2108, the original of which is on file in the Office of the County Clerk, County of Maui, State of Hawaii.

Dated at Wailuku, Hawaii, on

\_\_\_\_\_  
County Clerk, County of Maui

# Saving Water in The Yard

## What and How to Plant in Your Area



- 1 Wet Windward Areas
- 2 Cool Dry Upper Elevations
- 3 Warm to Hot Low Elevations
- 4 Wetter Low Areas Near Mountains
- 5 Windward Coastal Salt Spray Zones

Plant Zone Map Adapted from  
The Maui County Planting Plan

Tips From The Maui County Department of Water Supply  
*By Water All Things Find Life*

### Zone-specific Native and Polynesian plants for Maui County

### Zone 5

TYPE:	F Fern	G Grass	Gr Ground Cover	Sh Shrub	P Palm	S Sedge	Tr Tree	V Vine
Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.		
G	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet		
G	<i>Eragrostis variabilis</i>	'emo-ia	1'	2'	sea to 3,000'	Dry to Medium		
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'akraki fimbriatylis	0.5'	1'	sea to 1,000'	Dry to Medium		
Gr	<i>Boerhavia repens</i>	aiena	0.5'	4'	sea to 1,000'	Dry to Medium		
Gr	<i>Chamaesyce celastroides</i> var. <i>laehiensiis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium		
Gr	<i>Cressa fraxilliensis</i>	cressa	0.5'	1'	sea to 1,000'	Dry to Medium		
Gr	<i>Heliotropium anomalum</i> var. <i>argenteum</i>	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium		
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o hi'aka	0.5'	6'	sea to 1,000'	Dry to Medium		
Gr	<i>Lipochaeta integrifolia</i>	nehe	1'	5'	sea to 1,000'	Dry to Medium		
Gr	<i>Sesuvium portulacastrum</i>	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet		
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium		
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium		
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium		
Gr - Sh	<i>Lycium sandwicense</i>	'ohalo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium		
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet		
P	<i>Pritchardia hillebrandii</i>	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet		
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium		
Sh	<i>Argemone glauca</i> var. <i>decipiens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium		
Sh	<i>Artemisia australis</i>	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium		
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olu	1'	2'	sea to 1,000'	Dry to Wet		
Sh	<i>Bidens mauiensis</i>	ko'oko'olu	1'	3'	sea to 1,000'	Dry to Medium		
Sh	<i>Chenopodium oahuense</i>	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium		
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium		
Sh	<i>Gossypium tomentosum</i>	miao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium		

# Zone-specific Native and Polynesian plants for Maui County

Zone 5

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	<i>Hedyotis</i> spp.	eu, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	<i>Lipocheila lanarum</i>	nehē	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthyllifolia</i>	ʻulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Scaevola sericea</i>	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Senna gaudichaudii</i>	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	<i>Solanum nelsonii</i>	ʻākia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	<i>Villex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	<i>Wikstroemia uva-ursi kauaiensis</i>	ʻākia, Mōiokai osmanthus				
Sh - Tr	<i>Myoporum sandwicense</i>	nako, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh-Tr	<i>Dodonaea viscosa</i>	ʻāʻāliʻi	6'	8'	sea to higher	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Hibiscus furcatus</i>	ʻākiohala, hau-hau	8'			
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	<i>Pandanus lectidius</i>	ʻāia, pūhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Thespesia populnea</i>	milo	30'	30'	sea to 3,000'	Dry to Wet
V	<i>Pomoea pes-caprae</i>	beach morning glory, pohuehue	1'			

DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
black wattle	<i>Acacia meamii</i>	Mimosaceae
blackberry	<i>Rubus argutus</i>	Rosaceae
blue gum	<i>Eucalyptus globulus</i>	Myrtaceae
bocconia	<i>Bocconia frutescens</i>	Papaveraceae
broad-leaved cordia	<i>Cordia alliodora</i>	Boraginaceae
buffelgrass	<i>Andropogon virginicus</i>	Poaceae
butterfly bush, smoke bush	<i>Buddleia madagascariensis</i>	Buddleiaceae
cats claw, Mysore thorn, wai-a-bit	<i>Caesalpinia decapetala</i>	Caesalpinaceae
common ironwood	<i>Casuarina equisetifolia</i>	Casuarinaceae
common velvet grass, Yorkshire fog	<i>Holcus lanatus</i>	Poaceae
fidlewood	<i>Citharexylum spinosum</i>	Verbenaceae
fire tree, lava tree	<i>Myrica faya</i>	Myricaceae
gloydower	<i>Clerodendrum laponicum</i>	Verbenaceae
hairy cats ear, fosmore	<i>Hypochoeris radicata</i>	Verbenaceae
haole koa	<i>Leucaena leucocephala</i>	Asteraceae
ivy gourd, scarlet fruited gourd	<i>Coccinia grandis</i>	Fabaceae
juniper berry	<i>Citharexylum caudatum</i>	Cucurbitaceae
kahili flower	<i>Grevillea banksii</i>	Proteaceae
kū, popinac	<i>Acacia farnesiana</i>	Mimosaceae
koa, koa, bloodwood tree	<i>Haematoxylon campechianum</i>	Caesalpinaceae
koa tree	<i>Eriobotrya japonica</i>	Rosaceae
meadow ricegrass	<i>Eriaria filiformis</i>	Poaceae
meadow velvet leaf	<i>Melaleuca quinquenervia</i>	Myrtaceae
narrow-leaved carpetgrass	<i>Miconia calvescens</i>	Melastomataceae
oreaster	<i>Axonopus fissifolius</i>	Poaceae
oriental mangrove	<i>Briouera umbellata</i>	Elaeagnaceae
padding cassia	<i>Climacium burmannii</i>	Rhizophoraceae
pearl flower	<i>Sidaia palmifolia</i>	Lauraceae
quinine tree	<i>Heterocarpon subtripinervium</i>	Poaceae
salin leaf, carmitillo	<i>Cinchona pubescens</i>	Melastomataceae
silkwood, Queensland maple	<i>Chrysophyllum oliviforme</i>	Rubiaceae
silky oak, silver oak	<i>Mimosa birotundata</i>	Rubiaceae
strawberry guava	<i>Grevillea robusta</i>	Proteaceae
swamp oak, salinmarsh, longleaf ironwood	<i>Psidium cattleianum</i>	Myrtaceae
sweet vernalgrass	<i>Casuarina glauca</i>	Casuarinaceae
tree of heaven	<i>Anthoanthium odoratum</i>	Poaceae
trumpet tree, guarumo	<i>Allianthus altissima</i>	Poaceae
white ginger	<i>Cecropia obtusifolia</i>	Cecropiaceae
white moho	<i>Hedychium coronarium</i>	Zingiberaceae
yellow ginger	<i>Heliocarpus popayanensis</i>	Liliaceae
	<i>Hedychium flavescens</i>	Zingiberaceae

**DO NOT PLANT THESE PLANTS !!!**

Common name	Scientific name	Plant family
	Jasminum fluminense	Oleaceae
	Anthostema ciliatum	Melastomataceae
	Diosotis rotundifolia	Melastomataceae
	Erigeron karvinskianus	Asteraceae
	Eucalyptus robusta	Myrtaceae
	Hedychium gardinerianum	Zingiberaceae
	Juncus planifolius	Juncaceae
	Lophospermum confertus	Myrtaceae
	Medimilla cumingii	Melastomataceae
	Medimilla magnifica	Melastomataceae
	Medimilla ventosa	Melastomataceae
	Melastoma candidum	Melastomataceae
	Melinis minutiflora	Poaceae
	Olea europaea	Melastomataceae
	Oxyspora paniculata	Melastomataceae
	Panicum maximum	Poaceae
	Paspalum urvillei	Poaceae
	Passiflora edulis	Passifloraceae
	Phormium tenax	Agavaceae
	Pinus taeda	Pinaceae
	Prosopis pallida	Fabaceae
	Pterocarpus glomerata	Fabaceae
	Rhynchosyris tomentosa	Melastomataceae
	Schinus molle	Myrtaceae
	Schinus terebinthifolius	Myrtaceae
	Schefflera actinophylla	Araliaceae
	Syzygium jambos	Myrtaceae
	Acacia melanoxylon	Mimosaceae
	Cyathea cooperi	Cyathaceae
	Sphaeropteris cooperi	Cyathaceae
	Bidens plosa	Asteraceae
	Bracharia mullica	Poaceae
	Ficus microcarpa	Moraceae
	Asystasia gangetica	Acanthaceae
	Schinus terebinthifolius	Melastomataceae
	Acacia conlusa	Mimosaceae
	Senecio mikanioides	Asteraceae
	Lonicera japonica	Caprifoliaceae
	Clerodendron hirta	Melastomataceae
	Lantana camara	Verbenaceae
	Furcraea foetida	Agavaceae
	Fraxinus uhdei	Oleaceae
	Hummannia tumarilloflora	Papaveraceae
	Angiopsis evecta	Maritaceae
	Corynocarpus laevigatus	Corynocarpaceae
	Lepospermum scoparium	Myrtaceae
	Conardia jubata	Poaceae
	Castilleja elastica	Moraceae
	Ardisia elliptica	Myrsinaceae
	Passiflora mollissima	Passifloraceae
Australian blackwood	Acacia melanoxylon	Mimosaceae
Australian tree fern	Cyathea cooperi	Cyathaceae
Australian tree fern	Sphaeropteris cooperi	Cyathaceae
Beggar's tick, Spanish needle	Bidens plosa	Asteraceae
California grass	Bracharia mullica	Poaceae
Chinese banyan, Maylayan banyan	Ficus microcarpa	Moraceae
Chinese violet	Asystasia gangetica	Acanthaceae
Christmasberry, Brazilian pepper	Schinus terebinthifolius	Melastomataceae
Formosan koa	Acacia conlusa	Mimosaceae
German ivy	Senecio mikanioides	Asteraceae
Japanese honeysuckle	Lonicera japonica	Caprifoliaceae
Koster's curse	Clerodendron hirta	Melastomataceae
Lantana	Lantana camara	Verbenaceae
Mauritius hemp	Furcraea foetida	Agavaceae
Mexican ash, tropical ash	Fraxinus uhdei	Oleaceae
Mexican tulip poppy	Hummannia tumarilloflora	Papaveraceae
Mules foot, Madagascar tree fern	Angiopsis evecta	Maritaceae
New Zealand laurel, karakaraui	Corynocarpus laevigatus	Corynocarpaceae
New Zealand tea	Lepospermum scoparium	Myrtaceae
Pampas grass	Conardia jubata	Poaceae
Panama rubber tree, Mexican rubber tree	Castilleja elastica	Moraceae
Shoebuffon ardisia	Ardisia elliptica	Myrsinaceae
banana poka	Passiflora mollissima	Passifloraceae

## Selection

As a general rule, it is best to select the largest and healthiest specimens. However, be sure to note that they are not pot-bound. Smaller, younger plants may result in a low rate of plant survival.<sup>1</sup> When selecting native species, consider the site they are to be planted in, and the space that you have to plant. For example: Mountain species such as koa and maile will not grow well in hot coastal areas exposed to strong ocean breezes. Lowland and coastal species such as wiliwili and Kou require abundant sunshine and porous soil. They will not grow well with frequent cloud cover, high rainfall and heavy soil.

Consider too, the size that the species will grow to be. It is not wise to plant trees that will grow too large.<sup>2</sup> Overplanting tends to be a big problem in the landscape due to the underestimation of a species' height, width or spread.

A large, dense canopied tree such as the kukui is a good shade tree for a lawn. However, it's canopy size and density of shade will limit what can be planted in the surrounding area. Shade cast by a koa and ohia lehua is relatively light and will not inhibit growth beneath it.

Keep seasons in mind when you are selecting your plants. Not all plants look good year round, some plants such as ilima will look scraggly after they have flowered and formed seeds. Avoid planting large areas with only one native plant. Mixing plants which naturally grow together will ensure the garden will look good all year round.<sup>3</sup> Looking at natural habitats helps to show how plants grow naturally in the landscape.

When planting an area with a mixed-ecosystem, keep in mind the size and ecological requirements of each plant. Start with the hardiest and most easily grown species, but allow space for fragile ones in subsequent plantings.

## Acquiring natives

Plants in their wild habitat must be protected and maintained. It is best and easiest to get your plants from nurseries (see list), or friend's gardens. Obtain proper permits from landowners and make sure you follow a few common sense rules:

- collect sparingly from each plant or area.
- some plants are on the state or Federal Endangered Species list. Make sure you get permits (see app. A,B)

<sup>1</sup> K. Nagata, P.6

<sup>2</sup> K. Nagata, P.9

<sup>3</sup> Nagata, P.9

## Soil

Once you have selected your site and the plants you wish to establish there, you must look at the soil conditions on the site. Proper soil is necessary for the successful growth of most native plants, which perform poorly in hard pan, clay or adobe soils. If natives are to be planted in these types of soil, it would be wise to dig planting holes several times the size of the rootball and backfill with 50-75% compost.<sup>4</sup> A large planting hole ensures the development of a strong root system. The plant will have a headstart before the roots penetrate the surrounding poor soil.<sup>5</sup>

It is recommended that native plants not be planted in ground that is more dense than potting soil. If there is no alternative, dig a hole in a mound of soil mixed with volcanic cinder which encourages maximum root development. Fill the hole with water, if the water tends to puddle or drain too slowly, dig a deeper hole until the water does not puddle longer than 1 or 2 minutes.<sup>6</sup> Well-drained soil is one of the most important things when planting natives as you will see in the next section.

## Irrigation

Most natives do very poorly in waterlogged conditions. Do not water if the soil is damp. Water when the soil is dry and the plants are wilting. Once established, a good soaking twice a week should suffice. Deep soaking encourages the development of stronger, and deeper root systems. This is better than frequent and shallow watering which encourage weaker, more shallow root systems.

The following is a watering schedule from Kenneth Nagata's Booklet, *How To Plant A Native Hawaiian Garden*:

<u>WATER REQUIREMENT</u>	<u>WATERING FREQUENCY</u>
Heavy	3x / week
Moderate	2x / week
Light	1x / week

Red clay soils hold more water for a longer period of time than sandy soils do. If your area is very sunny or near a beach, things will dry out faster. Even in the area of one garden, there are parts that will need more or less water. Soils can vary and amount of shade and wind differ. After plants are established (a month or two for most plants, up to a year for some trees), you can back off watering.

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<sup>4</sup> Nagata, p. 6

<sup>5</sup> Nagata, p. 8

<sup>6</sup> Nagata, p. 8

Automatic sprinkler systems are expensive to install and must be checked and adjusted regularly. Above-ground systems allow you to monitor how much water is being put out, but you lose a lot due to malfunctioning of sprinkler heads and wind. The most efficient way to save water and make sure your plants get enough water, is to hand-water. This way you are getting our precious water to the right places in the right amounts.<sup>7</sup>

## Fertilizer

An all-purpose fertilizer 10-10-10 is adequate for most species. They should be applied at planting time, 3 months later, and 6 months thereafter. Use half the dosage recommended for ornamentals and pay special attention to native ferns which are sensitive to strong fertilizers. Use of organic composts and aged animal manures is suggested instead of chemical fertilizers. In addition, use of cinders for providing trace minerals is strongly recommended.<sup>8</sup>

Natives are plants which were here hundreds of years before the polynesians inhabited the Hawaiian Islands. They were brought here by birds, or survived the harsh ocean conditions to float here. They are well-adapted to Hawaii's varying soil and environmental conditions. This is why they make prime specimens for a xeriscape garden. However, natives will not thrive on their own, especially under harsh conditions. On the other hand, like any other plant, if you over-water and over-fertilize them, they will die. Follow the instructions given to you by the nursery you buy the plant from, or from this booklet. Better yet, buy a book (suggested readings can be found in the bibliography in the back of this pamphlet), read it, and learn more about native plants. I guarantee that you will be pleased with the results.

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<sup>7</sup> Bornhorst, p. 19-20

<sup>8</sup> Nagata, p. 6

## Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thorough and helpful book is Heidi Bornhorst's book, *Growing Native Hawaiian Plants*. The easiest, and best way to obtain natives for the novice gardener is to get them from a reputable nursery (see appendix c). That way all you will have to do is know how to transplant (if necessary) and plant-out when you are ready. These are the two methods I have listed here.

### Transplanting

1. Use pots that are one size bigger than the potted plant is in
2. Get your potting medium ready

Good potting medium is a ½, ½ mixture of peat moss and perlite. If the plant is from a dry or coastal area, add chunks of cinder or extra perlite. If it is a wet forest species, add more peat moss or compost. Be aware that peat moss is very acidic and certain plants react severely to acidity.

If the plant is to eventually be planted into the ground, make a mix of equal parts peat moss, perlite, and soil from the area in which the plant is to be planted. Slow-release fertilizer can be mixed into the potting medium.

3. Once pots, potting medium, fertilizer and water are ready, you can begin re-potting. Keep the plant stem at the same depth it was in the original pot. Avoid putting the plant in too large a pot, as the plant may not be able to soak up all the water in the soil and the roots may drown and rot.

Mix potting medium and add slow-release fertilizer at this time. Pre-wet the medium to keep dust down and lessen shock to the plant. Put medium in bottom of pot. Measure for the correct depth in the new pot. Make sure there is from ½ to 2 inches from the top of the pot so the plant can get adequate water. Try to stand the plant upright and center the stem in the middle of the pot.

Water the plant thoroughly after transplanting. A vitamin B-1 transplanting solution can help to lessen the transplant shock. Keep the plant in the same type of environment as it was before, sun or shade. If roots were broken, trim off some of the leaves to compensate for the loss.<sup>9</sup>

### Planting out

1. Plant most native Hawaiian plants in a sunny location in soil that is well-drained.
2. Make the planting hole twice as wide as the root ball or present pot, and just as deep.

If the soil is clay-like, and drains slowly, mix in some coarse red or bland cinder, coarse perlite or

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<sup>9</sup> Bornhorst, p.20-21

coarse compost. Place some slow-release fertilizer at the bottom of the hole.

3. Carefully remove the plant from the container and place it in the hole. The top of the soil should be at the same level as the top of the hole, if it is too high or too low, adjust the soil level so that the plant is at the right depth.

4. Water thoroughly after you transplant.

### Mulch

Most natives cannot compete with weeds, and therefore must be weeded around constantly in order to thrive. Mulch is a practical alternative, which discourages and prevents weeds from growing.

Hawaii's hot, humid climate leads to the breaking down of organic mulches. Thick organic mulches such as wood chips and leaves, may also be hiding places for pests.

Stone mulches are attractive, permanent and can help to improve soil quality. Red or black cinder, blue rock chips, smooth river rocks and coral chips are some natural choices.<sup>10</sup> Macadamia nut hulls are also easy to find and can make a nice mulch.<sup>11</sup>

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

---

<sup>10</sup> Bornhorst, p. 24

<sup>11</sup> Nagata, p. 7

## ZONES

The Maui County Planting Plan has compiled a system of 5 zones of plant growth for Maui County. The descriptions of zones and maps for these zones are as follows:

**Zone 1:**

Wet areas on the windward side of the island. More than 40 inches of rain per year. Higher than 3,000 feet.

**Zone 2:**

Cool, dry areas in higher elevations (above 1,000 feet). 20 to 40 inches of rain per year.

**Zone 3:**

Low, drier areas, warm to hot. Less than 20 inches of rain per year. Sea level to 1,000 feet.

**Zone 4:**

Lower elevations which are wetter due to proximity of mountains. 1,000 to 3,000 feet.

**Zone 5:**

Salt spray zones in coastal areas on the windward side.

These zones are to be used as a general guide to planting for Maui County. In addition to looking at the maps, read the descriptions of the zones and decide which zone best fits your area. Plants can be listed in more than one zone and can be planted in a variety of conditions. For best results, take notes on the rainfall, wind, sun and salt conditions of your site. Use the zones as a general guide for selection and read about the plants to decide which best fits your needs as far as care and or function.

## PLACES TO SEE NATIVES ON MAUI:

The following places propagate native Hawaiian plants from seeds and/or cuttings. Their purpose is to protect and preserve these native plants. Please contact them before going to view the sites, they can provide valuable information and referral to other sources.

- |    |  |          |
|----|--|----------|
| 1. | Hoolawa Farms<br>P O Box 731<br>Haiku HI 96708   | 575-5099 |
| 2. | The Hawaiian Collection<br>1127 Manu Street<br>Kula HI 96790   | 878-1701 |
| 3. | Kula Botanical Gardens<br>RR4, Box 228<br>Kula HI 96790  | 878-1715 |
| 4. | Maui Botanical Gardens<br>Kanaloa Avenue, Kahului<br>across from stadium   | 249-2798 |
| 5. | Kula Forest Reserve<br>access road at the end of Waipoli Rd<br>Call the Maui District Office   | 984-8100 |
| 6. | Wailea Point, Private Condominium residence<br>4000 Wailea Alanui, Kihei<br>public access points at Four Seasons Resort or<br>Polo Beach | 875-9557 |
| 7. | Kahanu Gardens, National Tropical Botanical Garden<br>Alau Place, Hana HI 96713  | 248-8912 |
| 8. | Kahului Library Courtyard<br>20 School Street<br>Kahului HI 96732  | 873-3097 |

## PLACES TO BUY NATIVE PLANTS ON MAUI

1. Ho'olawa Farms  
Anna Palomino  
P O Box 731  
Haiku HI 96708  
575-5099  
  
\* The largest and best collection of natives in the state. They will deliver, but worth the drive to go and see! Will propagate upon request
2. Kahanu Gardens  
National Tropical Botanical Garden  
Alau Place, Hana  
248-8912
3. Kihana Nursery  
1708 South Kihei Road  
Kihei HI 96753  
879-1165
4. Kihei Garden and Landscape  
Waiko Road, Wailuku  
P O Box 1058  
Puunene HI 96784  
244-3804
5. Kula Ace Hardware and Nursery  
3600 Lower Kula Road  
Kula HI 96790  
876-0734  
\* many natives in stock  
\* get most of their plants from Ho'olawa Farms  
\* they take special requests
6. Kulamanu Farms - Ann Carter  
Kula HI 96790  
878-1801
7. Maui Nui Botanical Gardens  
Kanaloa Avenue  
(Across from stadium)  
Kahului HI 96732  
249-2798
8. Native Gardenscapes  
Robin McMillan  
1330 Lower Kimo Drive  
Kula HI 96790  
870-1421  
  
\* grows native plants and installs landscapes including irrigation.
9. Native Hawaiian Tree Source  
1630 Piihola Road  
Makawao HI 96768  
572-6180
10. Native Nursery, LLC  
Jonathan Keyser  
250-3341
11. New Moon Enterprises - Pat Bily  
47 Kahoea Place  
Kula HI 96790  
878-2441
12. Waiakoa Tree Farm - Kua Rogoff  
Pukalani HI 96768  
Cell - 264-4166

### **Helber Hastert & Fee** *Planners, Inc.*

March 25, 2008

Mr. Jeffrey K. Eng, Director  
County of Maui  
Department of Water Supply  
200 South High Street  
Wailuku, HI 96793-2155



**Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Eng,

Thank you for your letter dated March 3, 2008 regarding the subject project. We offer the following responses to your comments.

1. The Draft Environmental Assessment (EA) will identify the sources and project's water demand estimates.
2. Fire flow and domestic water calculations will be included in the Draft EA.
3. The project's water conservation measures will be described in the Draft EA. At this time, they include the planned use of non-potable water for landscape irrigation; waterless urinals, low-flow showers, sinks and water closets; and use largely native and/or site-adaptive landscape plant species. None of the plants under consideration are on the list of prohibited plants enclosed with your comment letter.
4. A discussion of the project's potential best management practices (BMPs) to protect ground and surface water quality will be included in the Draft EA. The construction contractor will develop and implement site-specific BMPs to reduce potential adverse water quality impacts during construction.

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at grenard@hhf.com.

Sincerely,

Thomas A. Fee, AICP  
President

Cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

Pacific Guardian Center • 733 Bishop Street, Suite 2590 • Honolulu, Hawaii 96813

Tel. 808.545.2055 • Fax 808.545.2050 • www.hhf.com • e-mail: info@hhf.com



**DATE:** February 6, 2008

**TO:** Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813  
Attention: Gail Renard

**FROM:** Les Miyamoto  
Account Manager  
Hawaiian Telcom  
Office: 808.546.8831 / les.miyamoto@hawaiiantel.com

**SUBJECT:** Maui Community College – New Science Building

Dear Ms. Renard,

Thank you for including Hawaiian Telcom in your correspondence of January 28<sup>th</sup>, requesting

1. Please continue to include Hawaiian Telcom on the list of interested parties regarding this project.
2. We do not have any questions, issues, or comments at this time.

Please contact me for any questions or issues that might arise.

Mahalo & Best Regards,

--les

**Helber Hastert & Fee**  
Planners, Inc.

March 25, 2008

Mr. Les Miyamoto  
Account Manager  
Hawaiian Telcom

*By electronic mail to: les.miyamoto@hawaiiantel.com*

**Maui Community College Science Building**  
**Environmental Assessment**  
**Wailuku District, Maui, Hawaii**  
**TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Miyamoto,

Thank you for your memorandum dated February 6, 2008 regarding the subject project. We note that you do not have any comments at this time, but would like to continue to be notified about the project. The Draft Environmental Assessment will be sent for your review when it is published.

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at grenard@hhf.com.

Sincerely,

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.





February 19, 2008

Helber, Hastert & Fee Planners  
Attn: Gail Renard  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813

Dear Ms. Renard,

Subject: Maui Community College New Science Building  
Draft Environmental Assessment Pre-Assessment Consultation  
Wailuku, Maui, Hawaii  
TMK: (2) 3-8-007:040

Thank you for allowing us to comment on the Draft Environmental Assessment Pre-Assessment Consultation for the subject project.

In reviewing our records and the information received, Maui Electric Company (MECO) has no objection to the project at this time. However, we highly encourage the customer's electrical consultant to submit the electrical demand requirements and project time schedule as soon as practical so that service can be provided on a timely basis.

Should you have any other questions or concerns, please call Ray Okazaki at 871-2340.

Sincerely,

A handwritten signature in black ink, appearing to read "Neal Shinyama".

Neal Shinyama  
Manager, Engineering

NS/ro:lh

**Helber Hastert & Fee**  
*Planners, Inc.*

March 25, 2008

Mr. Neal Shinyama, Manager  
Engineering  
Maui Electric Company, Ltd.  
P.O. Box 398  
Kahului, HI 96733-6898



**Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Shinyama,

Thank you for your letter dated February 19, 2008 regarding the subject project. We note that you do not have any comments at this time, but would like to have the project's electrical demand requirements and project schedule as soon as practical. We have notified the project's design team, who will forward the requested information when it becomes available.

We appreciate your input and participation in the EA process. If you have any questions, please contact Gail Renard, project planner, at (808) 545-2055 or by email at grenard@hhf.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas A. Fee".

Thomas A. Fee, AICP  
President

cc: Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

**APPENDIX B.2**  
Draft EA Correspondence

United States Department of Agriculture



Natural Resources Conservation Service  
P.O. Box 50004 Rm. 4-118  
Honolulu, HI 96850  
808-541-2600

April 9, 2008

David Tamanaha  
Vice Chancellor of Administrative Affairs  
Maui Community College  
310 Ka'ahumanu Avenue  
Kahului, HI 96732

Dear Mr. Tamanaha,

Thank you for providing the NRCS the opportunity to review the Draft Environmental Assessment (EA) for the Maui Community College Science Building Project. In review of the project site location it was found that no Prime or Important Farmlands exist or will be impacted at this site. In addition, no hydric soils are located in the project area. Hydric soils identify potential areas of wetlands. If wetlands do exist, any proposed impacts to these wetlands would need to demonstrate compliance with the "Clean Water Act", and may need an Army Corp of Engineers 404 permit.

If you have any questions concerning the soils for this project please contact, Tony Rolfes, Assistant State Soil Scientist, by phone (808) 541-2600 x129 or email, [Tony.Rolfes@hi.usda.gov](mailto:Tony.Rolfes@hi.usda.gov).

Sincerely,

LAWRENCE T. YAMAMOTO  
Director  
Pacific Islands Area

cc: The Office of Environmental Quality Control, Honolulu, HI 96813  
Helber Hastert & Fee, Planners, Honolulu, HI 96813  
Michael Robotham, Assistant Director for Soil Science and Natural Resource Assessments, USDA-NRCS, Pacific Islands Area

Helber Hastert & Fee  
Planners, Inc.

September 30, 2008

Mr. Lawrence T. Yamamoto  
Director, Pacific Islands Area  
Natural Resources Conservation Service  
P.O. Box 50004 Rm. 4-118  
Honolulu, HI 96850

**Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**



Dear Mr. Yamamoto,

Thank you for your letter dated April 9, 2008 regarding the subject project, which notes that there are no Prime or Important Farmlands that exist or will be impacted by the project, and no hydric soils are located in the project area.

We appreciate your input and participation in the EA process. Your letter and this response will be appended to the Final EA.

Sincerely,

Thomas A. Fee, AICP  
President

Cc: Office of Environmental Quality Control  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

LINDA LINGLE  
Governor of Hawaii



KATHERINE PUANA KEALOHA  
Director

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 South Beretania Street  
Leiopapa A Kamehameha, Suite 702  
Honolulu, Hawaii 96813

April 30, 2008

Telephone (808) 586-4185  
Facsimile (808) 586-4186  
Electronic Mail: [oeqc@doh.hawaii.gov](mailto:oeqc@doh.hawaii.gov)



Dr. Clyde M. Sakamoto, Chancellor  
University of Hawai'i - Maui Community College  
310 W. Ka'ahumanu Avenue  
Kahului, Hawaii'i 96732-1617

Ms. Gail Renard  
Helber Hastert & Fee, Planners  
Pacific Guardian Center, Makai Tower  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii'i 96813

Dear Dr. Sakamoto and Ms. Renard:

We have reviewed the March 2008, draft environmental assessment entitled: "*University of Hawai'i, Maui Community College Science Building*," Tax Map Key (2) 3-8-007: 040 (por.), in the Wailuku district on the island of Maui. The Office of Environmental Quality Control (OEQC) offers the following comments for your consideration.

**Laboratories, Recyclable Materials and Wastewater Disposal**

Section 2.2.2 of the draft environmental assessment notes that the new science building will consist of individual laboratories, central lab and storage, and a community research laboratory. Section 3.4.8 notes that approximately twice a year, accumulated hazardous wastes will be picked up by a private disposal company in accordance with Federal, State and County requirements. Developing a plan for handling recyclable materials and waste can minimize the waste streams and reduce the cost of off-site disposal.

Solvents (ethers, acetone, ligroin, etc.) and other chemical compounds will be used in the laboratories and it is likely that hazardous waste/recyclable materials may be generated as a result. Assuming that the waste/material streams are properly segregated, solvents can be recovered on site through distillation over a drying agent. The community college should look into setting up a waste exchange; excess chemical compounds can be exchanged with other schools or campuses of the University of Hawai'i. Please discuss what solvents and other chemical compounds or mixtures thereof, if any, will be permitted to be disposed of in the community college's wastewater system. For more information on this, please contact the Solid and Hazardous Waste Branch of the Department of Health at (808) 586-4226.

Thank you for the opportunity to comment on this document. If there are any questions, please contact Mr. Leslie Segundo, Environmental Health Specialist, at (808) 586-4185.

Sincerely,

KATHERINE PUANA KEALOHA  
Director

Helber Hastert & Fee  
Planners, Inc.

September 30, 2008

Ms. Katherine Puana Kealoha, Director  
State of Hawaii  
Office of Environmental Quality Control  
235 South Beretania Street, Suite 702  
Honolulu, HI 96813



Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)

Dear Ms. Kealoha,

Thank you for your letter dated April 30, 2008 regarding the subject project. We offer the following responses to your comments.

**Laboratories, Recyclable Materials and Wastewater Disposal**

Maui Community College (MCC) disposes of its hazardous wastes according to applicable Federal, State and County regulations. Only non-hazardous materials are disposed of into the wastewater system. Because transportation of chemical waste is not economical or practical, a waste exchange program is not under consideration.

We appreciate your input and participation in the EA process. Your letter and this response will be appended to the Final EA.

Sincerely,

Thomas A. Fee, AICP  
President

Cc: Office of Environmental Quality Control  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

Laura H. Thielen  
Chairperson  
Board of Land and Natural Resources  
Commission on Water Resource Management



April 1, 2008

Helber, Hastert & Fee Planners  
733 Bishop Street Suite 2590  
Honolulu, Hawaii 96813

Attention: Ms. Gail Renard

Gentlemen:

Subject: Pre-assessment consultation draft environmental assessment for Maui  
Community College New Science Building, Wailuku, Maui, Tax Map Key: (2)  
3-8-7-40

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to the Division of Aquatic Resources for their review and comment.

The Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

*Morris M. Atta*  
Morris M. Atta  
Administrator

Mar 27 2008 16:17 DAR-MAUI

808-243-5833

P. 1

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809



January 31, 2008

MEMORANDUM

TO: DLNR Agencies:  
 Div. of Aquatic Resources  
 Div. of Boating & Ocean Recreation  
 Engineering Division  
 Div. of Forestry & Wildlife  
 Div. of State Parks  
 Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division - District



FROM: *Morris M. Atta*  
SUBJECT: Pre-assessment consultation Draft Environmental Assessment for Maui  
Community College New Science Building  
LOCATION: Wailuku, Maui, TMK: (2) 3-8-7-40  
APPLICANT: Helber, Hastert & Fee Planners

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 15, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- ( ) We have no objections.
- ( ) We have no comments.
- (X) Comments are attached.

Signed: *Skippy Han*  
Date: *3/27/08*

Post-it Fax Note	7671	Date	3/27/08	# of pages	2
To	Atan Miyasaka	From	Skippy Han		
Co./Dept.		Co.			
Phone #		Phone #	243-5834		
Fax #	587-0115	Fax #	243-5833		

Laura H. Thielen  
Chairperson  
Board of Land and Natural Resources  
Commission on Water Resource Management  
Aquatic Resources 1987

DIRECTOR	
COM. FISH	
AD REC/ENV	
AD REC	
PLANNER	
STAFF SVCS	
RCU/PH	
STATISTICS	
AFRC/PEP AID	
EDUCATION	
SECRETARY	
OFFICE SVCS	
TECH ASST	
<i>Man</i>	
Return to:	
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Copies to:	
Due Date:	

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MAR 17 2008  
*Man*  
Div. of Aquatic Resources

DIVISION OF AQUATIC RESOURCES - MAUI  
DEPARTMENT OF LAND & NATURAL RESOURCES  
130 Mahalani Street  
Wailuku, Hawai'i 96793  
March 27, 2008

To: Alton Miyasaka, Aquatic Biologist  
From: *Sh*  
Skippy Hau, Aquatic Biologist  
Subject: Draft EA Maui Community College New Science Building  
(DAR 1387) TMK (2) 3-8-7:40  
(Comments to Morris Atta (Land) by Feb. 15, 2008; Received March 17)

I reviewed the pre-assessment letter and recommend that the environmental assessment include sections to address adequate ventilation and hooded areas to allow safe handling of an assortment of chemicals, elements, and compounds. There should be adequate safety and emergency wash areas. The disposal of chemicals should be separate from the community sewer system. It will be necessary for comprehensive testing and experimentation with chemicals and/or heavy metals. Herbicide and pesticide wash water should not be going into the sewer. Exotic (introduced) seeds and plant cuttings will need to be disposed of properly in a sanitary landfill or incinerated.

The establishment of exotic organisms and cross-contamination should be minimized. Based on past experiences, these facilities need to be fully-equipped when completed. I've heard about the "new" Marine Science building at the U.H. Manoa campus that was never fully funded, never fully equipped, and never really completed as was originally intended.

I hope that electrical, plumbing, and drainage be planned adequately to address the needs of a modern science and teaching facility. Recent accidents should give us the foresight to secure valuable data and stored specimens from flooding either from an unexpected storm or broken plumbing. With the use of electrical equipment the building should be fire proofed for safe evacuation and built to isolate fires or explosions.

Will there be teaching labs to conduct necropsies and adequate space to freeze or refrigerate specimens? I hope that workshops and scientific training seminars could be expanded at MCC. I would like to see workshops that can take people beyond just listening to lectures.

**Helber Hastert & Fee**  
Planners, Inc.

September 30, 2008

Mr. Morris M. Atta, Administrator  
State of Hawaii  
Department of Land and Natural Resources  
Land Division  
P.O. Box 621  
Honolulu, HI 96809



**Maui Community College Science Building  
Environmental Assessment – Pre-Assessment Consultation  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Atta,

Thank you for your division's pre-assessment consultation comments of April 1, 2008 regarding the subject project that transmitted the Division of Aquatic Resources – Maui comments dated March 27, 2008 (Mr. Skippy Hau). Many of the comments were addressed in the Draft Environmental Assessment (DEA), which was published before your comments were received. We offer the following responses to the comments relevant to the environmental review.

**Ventilation**

The DEA (page 13) describes the proposed ventilation system for the science building, including laboratory hood exhaust fans.

**Hazardous Waste Disposal**

Sections 3.4.8 and 4.4.8 of the DEA describe the process by which hazardous wastes (such as chemicals used in the science labs) are disposed of. They are disposed of by a private disposal company in accordance with applicable Federal, State and County requirements and not in the community sewer system.

**Invasive Species**

Any biohazards (such as the exotic organisms, seeds and plant cuttings referred to in your letter) are autoclaved prior to disposal. The risk of exotic organisms and cross-contamination is minimized by adhering to rules and policies set up by the U.S. Department of Agriculture and the University of Hawaii.

Mr. Morris M. Atta  
Department of Land and Natural Resources  
September 30, 2008  
Page 2

**Fire Safety**

The facility will be designed to conform to all applicable codes, including fire safety. The entire science building complex will be constructed of Type II-N (Fire Rating) construction.

**Utility Systems**

The building's utility systems are described in Section 2.2.4 of the DEA.

We appreciate your input and participation in the EA process. Your letter and this response will be appended to the Final EA.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Fee', written over a white background.

Thomas A. Fee, AICP  
President

Cc: Office of Environmental Quality Control  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

LINDA LINGLE  
GOVERNOR OF HAWAII



Laura H. Thielen  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 1, 2008



Maui Community College  
310 Ka'ahumanu Avenue  
Kahului, HI 96732

Attention: Mr. David Tamanaha  
Vice Chancellor of Administrative Affairs

Dear Mr. Tamanaha:

SUBJECT: Draft Environmental Assessment for Maui Community College Science Building, Wailuku District, Maui, Hawaii; TMK: (2) 3-8-007:040 (por.)

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from the Engineering division on the subject matter. Should you have any questions, please feel free to call my office at 587-0433. Thank you.

Sincerely,

*Charlene E. Lindis*  
Morris M. Atta  
Acting Administrator

Enclosure(s)

cc: The Office of Environmental Quality Control (w/copies)  
Helber Hastert & Fee, Planners (w/copies)  
Attention: Ms. Gail Renard, Project Planner

LINDA LINGLE  
GOVERNOR OF HAWAII



Laura H. Thielen  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

April 5, 2008

MEMORANDUM

TO: DLNR Agencies:  
 Div. of Aquatic Resources  
 Div. of Boating & Ocean Recreation  
 Engineering Division  
 Div. of Forestry & Wildlife  
 Div. of State Parks  
 Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division - Oahu District

FROM: *MM* Morris M. Atta *Charlene*  
SUBJECT: Draft environmental assessment for Maui Community College Science Building  
LOCATION: Wailuku, Maui, TMK: (2) 3-8-7:portion 40  
APPLICANT: Helber Hastert & Fee on behalf of Maui Community College

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 30, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *Ca. J. Flynn*  
Date: 4/23/08

RECEIVED  
LAND DIVISION  
2300 APR 23 A 9:48

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LD:MorrisAtta  
REF.: DEAMauiComCollegeScienceBldg  
Maui.403

COMMENTS

- (X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone C. The Flood Insurance Program does not have any regulations for developments within Zone C.
- ( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone.
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_\_.
- ( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- ( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
- ( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
- ( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
- ( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- ( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.
- (X) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: \_\_\_\_\_

( ) Other: \_\_\_\_\_

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed:   
ERIC T. HIRANO, CHIEF ENGINEER

Date: 4/23/08

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 30, 2008

County of Maui  
Department of Planning  
250 South High Street  
Wailuku, Hawaii 96793

Attention: Mr. Danny A. Dias  
Staff Planner

Dear Mr. Dias:

SUBJECT: Special Management Area Application – University of Hawaii, Maui  
Community College, Science Building, Wailuku, Island of Maui, Hawaii;  
TMK: (2) 3-8-007:040 (por.)

*sm 08/08*

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from (a) Engineering, (b) Forestry & Wildlife, (c) State Parks, and (d) Maui District office of the Land Division on the subject matter. Should you have any questions, please feel free to call my office at 587-0433. Thank you.

Sincerely,

  
Morris M. Atta  
Administrator

Enclosures

Laura H. Thiele  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

2008 JUN 3 AM 11 26  
DEPARTMENT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

LINDA LINGLE  
GOVERNOR OF HAWAII



Laura H. Thielen  
Chairperson  
Board of Land and Natural Resources  
Commission on Water Resource Management

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 6, 2008

MEMORANDUM

- TO: **DLNR Agencies:**
- Div. of Aquatic Resources
  - Div. of Boating & Ocean Recreation
  - Engineering Division**
  - Div. of Forestry & Wildlife
  - Div. of State Parks
  - Commission on Water Resource Management
  - Office of Conservation & Coastal Lands
  - Land Division – (Maui District)

FROM: Morris M. Atta *Chaulone*

SUBJECT: Special Management Area Application – University of Hawaii, Maui Community College Science Building

LOCATION: Wailuku, Maui, Hawaii; TMK: (2) 3-8-007:040 (por.)

APPLICANT: Maui Community College

RECEIVED  
 LAND DIVISION  
 2008 MAY 22 P 2:45  
 DEPT OF LAND &  
 NATURAL RESOURCES  
 STATE OF HAWAII

\*03 MAY 07 PM 02:24 ENGINEERING

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 29, 2008.

*A copy of the CD is available for your review in Land Division office, Room 220.*

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *Eric T. Hirano*  
 Date: *5/22/08*

cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LM/MorrisAtta  
 REF.:SMAUPermitUHMaiComCollege  
 Maui.409

COMMENTS

- (X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone C. The National Flood Insurance Program does not have any regulations for developments within Zone C.
- ( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone.
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_\_.
- ( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- ( ) Mr. Robert Sumitomo at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
- ( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
- ( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
- ( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- ( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
- (X) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: \_\_\_\_\_

( ) Other: \_\_\_\_\_

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: *Eric T. Hirano*  
 ERIC T. HIRANO, CHIEF ENGINEER

Date: *5/22/08*

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 6, 2008

MEMORANDUM

TO:

**DLNR Agencies:**

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division – (Maui District)

FROM:

for Morris M. Atta *Chaulone*

SUBJECT: Special Management Area Application – University of Hawaii, Maui Community College Science Building

LOCATION: Wailuku, Maui, Hawaii; TMK: (2) 3-8-007:040 (por.)

APPLICANT: Maui Community College

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 29, 2008.

*A copy of the CD is available for your review in Land Division office, Room 220.*

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:

Date: MAY - 7 2008

**PAUL J. CONRY, ADMINISTRATOR**  
DIVISION OF FORESTRY AND WILDLIFE

cc: Central Files

RECEIVED  
LAND DIVISION  
2008 MAY - 8 P 3:20  
DEPT OF LAND & NATURAL RESOURCES  
STATE OF HAWAII

LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 6, 2008

MEMORANDUM

TO:

**DLNR Agencies:**

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division – (Maui District)

FROM:

for Morris M. Atta *Chaulone*

SUBJECT: Special Management Area Application – University of Hawaii, Maui Community College Science Building

LOCATION: Wailuku, Maui, Hawaii; TMK: (2) 3-8-007:040 (por.)

APPLICANT: Maui Community College

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by May 29, 2008.

*A copy of the CD is available for your review in Land Division office, Room 220.*

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:

Date: 5/23/08

cc: Central Files

RECEIVED  
STATE PARKS DIV

08 MAY -7 10:14

DEPT OF LAND & NATURAL RESOURCES

RECEIVED  
LAND DIVISION  
2008 MAY 27 A 10:01  
DEPT OF LAND & NATURAL RESOURCES  
STATE OF HAWAII

51627

LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

May 6, 2008

MEMORANDUM

TO: **DLNR Agencies:**  
 Div. of Aquatic Resources  
 Div. of Boating & Ocean Recreation  
 Engineering Division  
 Div. of Forestry & Wildlife  
 Div. of State Parks  
 Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division - (Maui District)

FROM: Morris M. Atta *Maui*  
SUBJECT: Special Management Area Application - University of Hawaii, Maui Community  
College Science Building  
LOCATION: Wailuku, Maui, Hawaii; TMK: (2) 3-8-007:040 (por.)  
APPLICANT: Maui Community College

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by **May 29, 2008**.

*A copy of the CD is available for your review in Land Division office, Room 220.*

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.  
 We have no comments.  
 Comments are attached.

Signed: *MA*  
Date: 5/13/08

cc: Central Files

Laura H. Thiele  
Chairperson  
Board of Land and Natural Resources  
Commission on Water Resource Management



**Helber Hastert & Fee**  
*Planners, Inc.*

September 30, 2008

Mr. Morris M. Atta, Administrator  
State of Hawaii  
Department of Land and Natural Resources  
Land Division  
P.O. Box 621  
Honolulu, HI 96809



**Maui Community College Science Building  
Environmental Assessment and  
Special Management Area Use Permit Application #SM1 2008/0008  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Atta,

Thank you for your division's comments of May 1, 2008 and May 30, 2008 regarding the subject project's Draft Environmental Assessment (EA) and Special Management Area Use Permit (SMAUP) application, respectively. Since both sets of correspondence contain essentially the same material, this letter offers responses to both letters. We note that the Division of Forestry & Wildlife, Division of State Parks, and Land Division (Maui District) either had no comments or no objections to the project.

**Engineering Division**

We acknowledge your confirmation that the project site is located in Zone C on the Floor Insurance Rate Map.

The applicant will provide water demands and calculations to the DLNR Engineering Division. The estimated daily water usage daily water usage will be 21,900 gallons per day. This will be reported in the Final EA

We appreciate your input and participation in the EA and SMAUP process. Your letter and this response will be appended to the Final EA.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Fee', with a stylized flourish at the end.

Thomas A. Fee, AICP  
President

Mr. Morris M. Atta  
State of Hawaii Department of Land and Natural Resources  
September 30, 2008  
Page 2

Cc: Office of Environmental Quality Control  
Mr. Jeffrey S. Hunt, Maui County Planning Director  
Mr. Danny A. Dias, Maui County Planning Department  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

LINDA LINGLE  
GOVERNOR OF HAWAII



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

May 6, 2008

Mr. David Tamanaha, Vice Chancellor  
Maui Community College  
310 Ka'ahumanu Avenue  
Kahului, Hawaii 96732

Dear Mr. Tamanaha:

SUBJECT: Draft Environmental Assessment for Maui Community College Science Building  
Kahului, Maui, Hawaii  
TMK: (2) 3-8-007: 040 (portion)

Thank you for allowing us to review and comment on the subject application. The application was routed to the various branches of the Environmental Health Administration. We have the following Clean Water Branch, Clean Air Branch and General comments.

#### Clean Water Branch

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at <http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:
  - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

CHIYOME L. FUKINO, M.D.  
DIRECTOR OF HEALTH

In reply, please refer to:  
EPO-08-056



Mr. Tamanaha  
May 6, 2008  
Page 2

2. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

- a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the start of the construction activities.
- b. Once through cooling water less than one (1) million gallons per day.
- c. Hydrotesting water.
- d. Construction dewatering effluent.
- e. Treated effluent from recycled water distribution systems.
- f. Storm water from a small municipal separate storm sewer system.

You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.

3. For types of wastewater not listed in Item 2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html>.
4. You must also submit a copy of the NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.

Mr. Tamanaha  
May 6, 2008  
Page 3

5. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at 586-4309.

Clean Air Branch

#### **Control of Fugitive Dust**

Fugitive dust emissions occur during all phases of construction and operations. Activities close to existing residences, businesses, public areas or thoroughfares can cause dust problems. For cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential nuisance problems. We recommend that the contractors operate under a dust control management plan. The plan does not require the Department of Health approval, however it will help with identifying and minimizing the dust problems from the proposed project.

Examples of measures that can be included in the dust control plan are:

- a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
- b) Providing an adequate water resource at the site prior to start-up of construction activities;
- c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;
- d) Minimizing dust from shoulders and access roads;
- e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f) Controlling dust from debris being hauled away from the project site.

All activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. If you have any questions, please contact the Clean Air Branch at 586-4200

Mr. Tamanaha  
May 6, 2008  
Page 4

#### General

We strongly recommend that you review all of the Standard Comments on our website: [www.hawaii.gov/health/environmental/env-planning/landuse/landuse.html](http://www.hawaii.gov/health/environmental/env-planning/landuse/landuse.html). Any comments specifically applicable to this project should be adhered to.

If there are any questions about these comments please contact Jiakai Liu with the Environmental Planning Office at 586-4346.

Sincerely,



KELVIN H. SUNADA, MANAGER  
Environmental Planning Office

c: EPO  
CWB  
CAB  
EH-Maui  
Gail Renard, Helber Hastert & Fee Planners, Inc.

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Standard Comments from the Clean Water Branch

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The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of the subject document on (insert received date). The CWB has reviewed the limited information contained in the subject document and offers the following comments:

1. The Army Corps of Engineers should be contacted at (808) 438-9258 for this project. Pursuant to Federal Water Pollution Control Act (commonly known as the AClean Water Act (CWA)), Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for A[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters... (emphasis added). The term Adischarge is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40, Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.
2. In accordance with HAR, Sections 11-55-04 and 11-55-34.05, the Director of Health may require the submittal of an individual permit application or a Notice of Intent (NOI) for general permit coverage authorized under the National Pollutant Discharge Elimination System (NPDES).
  1. An application for an NPDES individual permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html>.
  2. An NOI to be covered by an NPDES general permit is to be submitted at least 30 days before the commencement of the respective activity. A separate NOI is needed for coverage under each NPDES general permit. The NOI forms may be picked up at our office or downloaded from our website at: <http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.
    1. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi). [HAR, Chapter 11-55, Appendix B]
    2. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the commencement of the construction activities.** [HAR, Chapter 11-55, Appendix C]

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Standard Comments from the Clean Water Branch

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3. Discharges of treated effluent from leaking underground storage tank remedial activities. [HAR, Chapter 11-55, Appendix D]
  4. Discharges of once through cooling water less than one (1) million gallons per day. [HAR, Chapter 11-55, Appendix E]
  5. Discharges of hydrotesting water. [HAR, Chapter 11-55, Appendix F]
  6. Discharges of construction dewatering effluent. [HAR, Chapter 11-55, Appendix G]
  7. Discharges of treated effluent from petroleum bulk stations and terminals. [HAR, Chapter 11-55, Appendix H]
  8. Discharges of treated effluent from well drilling activities. [HAR, Chapter 11-55, Appendix I]
  9. Discharges of treated effluent from recycled water distribution systems. [HAR, Chapter 11-55, Appendix J]
  10. Discharges of storm water from a small municipal separate storm sewer system. [HAR, Chapter 11-55, Appendix K]
  11. Discharges of circulation water from decorative ponds or tanks. [HAR, Chapter 11-55, Appendix L]
3. In accordance with HAR, Section 11-55-38, the applicant for an NPDES permit is required to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. If applicable, please submit a copy of the request for review by SHPD or SHPD's determination letter for the project.
  4. Any discharges related to project construction or operation activities, with or without a Section 401 WQC or NPDES permit coverage, shall comply with the applicable State Water Quality Standards as specified in HAR, Chapter 11-54.

Hawaii Revised Statutes, Subsection 342D-50(a) requires that A[n]o person, including any public body, shall discharge any water pollutants into state waters, or cause or allow any water pollutant

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**Standard Comments from the Clean Water Branch**

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to enter state waters except in compliance with this chapter, rules adopted pursuant to this chapter, or a permit or variance issued by the director.≡

If you have any questions, please contact Mr. Alec Wong, Supervisor of the Engineering Section, CWB, at (808) 586-4309.

**Hazard Evaluation & Emergency Response Office**

1. A phase I Environmental Site Assessment (ESA) should be conducted for developments or redevelopments. If the investigation shows that a release of petroleum, hazardous substance, pollutants or contaminants occurred at the site, the site should be properly characterized through an approved Hawaii State Department of Health (DOH)/Hazard Evaluation and Emergency Response Office (HEER) soil and or groundwater sampling plan. If the site is found to be contaminated, then all removal and remedial actions to clean up hazardous substance or oil releases by past and present owners/tenants must comply with chapter 128D, Environmental Response Law, HRS, and Title 11, Chapter 451, HAR, State Contingency Plan.
2. All lands formerly in the production of sugarcane should be characterized for arsenic contamination. If arsenic is detected above the US EPA Region (preliminary remediation goal (PRG) for non-cancer effects, then a removal and or remedial plan must be submitted to the Hazard Evaluation and Emergency Response (HEER) Office of the State Department of Health for approval. The plan must comply with Chapter 128D, Environmental Response Law, HRS, and Title 11, Chapter 451, HAR, State Contingency Plan.
3. If the land has a history of previous releases of petroleum, hazardous substances, pollutants, or contaminants, we recommend that the applicant request a "no further action" (NFA) letter from the Hawaii State Department of Health (DOH)/Hazard Evaluation and Emergency Response (HEER) Office prior to the approval of the land use change or permit approval.

**Solid and Hazardous Waste Branch - Standard Comments**

1)  
The OSWM recommends the development of a solid waste management plan that encompasses all project phases including demolition, construction, and occupation/operation of the completed project.

- Specific examples of elements that the plan should address include:
- The recycling of green-waste during clear and grub activities;
  - Recycling construction and demolition wastes, if appropriate;
  - The use of locally produced compost in landscaping;
  - The use of recycled content building materials;
  - The provision of recycling facilities in the design of the project.

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2)  
The developer shall ensure that all solid waste generated during project construction is directed to a Department of Health permitted solid waste disposal or recycling facility.

-----

3)  
The developer should consider providing space in the development for recycling activities. The provision of space for recycling bins for paper, glass, and food/wet waste would help to encourage the recycling of solid waste(s) generated by building occupants.

-----

4)  
The discussion of solid waste issues contained in the document is restricted to activities within the completed project. The OSWM recommends the development of a solid waste management plan that encompasses all project phases, from construction (and or demolition) to occupation of the project.

Specific examples of plan elements include: the recycling of green-waste during clear and grub activities; maximizing the recycling of construction and demolition wastes; the use of locally produced compost in the landscaping of the project; and the provision of recycling facilities in the design of the project.

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5)  
Hawaii Revised Statutes Chapter 103D-407 stipulates that all highway and road construction and improvement projects funded by the State or a county or roadways that are to be accepted by the State or a county as public roads shall utilize a minimum of ten per cent crushed glass aggregate as specified by the department of transportation in all base-course (treated or untreated) and sub-base when the glass is available to the quarry or contractor at a price no greater than that of the equivalent aggregate.

If you have any questions, please contact the Solid and Hazardous Waste Branch at (808) 586-4240.

**Helber Hastert & Fee**  
Planners, Inc.

September 30, 2008

Mr. Kelvin H. Sunada, Manager  
Environmental Planning Office  
State of Hawaii  
Department of Health  
P.O. Box 3378  
Honolulu, HI 96801-3378



**Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Sunada,

Thank you for your letter dated May 6, 2008 (EPO-08-056) regarding the subject project. We offer the following responses to your comments.

**Clean Water Branch**

As noted in the Draft Environmental Assessment (EA), the project will require a National Pollutant Discharge Elimination System (NPDES) permit and project construction will comply with all NPDES permit requirements.

**Clean Air Branch**

Prior to construction, a dust control management plan will be developed. Construction contractors will operate under this plan. As stated in the Draft EA, best management practices for dust control would be implemented and all construction activities will comply with State DOH standards for fugitive dust.

**General**

The Department's standard comments have been reviewed for applicability to this project. Project construction and operation will comply with all applicable Department of Health rules. Relevant comments are addressed as follows.

Hazard Evaluation and Emergency Response Office, Standard Comment No. 1 - Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment has not been conducted for the project area. Based on its previous known uses (gravel parking lot, volleyball court), the likelihood is low that there have been petroleum, hazardous substances, pollutant or contaminant releases at the site.

Mr. Kelvin H. Sunada  
State of Hawaii Department of Health  
September 30, 2008  
Page 2

Hazard Evaluation and Emergency Response Office, Standard Comment No. 2 – Arsenic contamination characterization of former sugarcane lands

Based on interviews with individuals with knowledge of the historic use of the property (e.g., facilities planner and 1940s Raw Fish Camp resident), the project area is not known to have been formerly in the production of sugarcane.

Solid and Hazardous Waste Branch, Standard Comment No. 1 – Solid waste management plan

As stated in Section 4.4.7 of the Draft EA, the construction contractor will develop a site-specific construction waste management plan for the project. Since this project will be seeking LEED Silver certification, a construction waste management plan will be developed and included in the projects specification as part of the bid documents. The selected contractor must adhere to the construction waste management plan as identified in the bid specifications. After project completion, MCC's solid waste management plan will be implemented for the occupation/operation of the project. The applicant's intent is to sort and recycle all recyclable items used in the facility.

Your letter, along with the Department's standard comments, has been forwarded to the project's owners and designers for information and compliance during the construction and operational periods.

We appreciate your input and participation in the EA process. Your letter and this response will be published in the Final EA.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Fee'.

Thomas A. Fee, AICP  
President

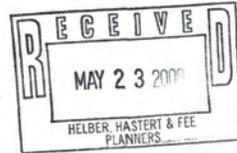
Cc: Office of Environmental Quality Control  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

PHONE (808) 594-1888



STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

FAX (808) 594-1865



HRD08/3394C

May 15, 2008

David Tamanaha  
Vice Chancellor of Administrative Affairs  
Maui Community College  
310 Ka'ahumanu Ave.  
Kahului, HI 96732

**RE: Request for comments on the Draft Environmental Assessment of Maui Community College's proposed new science building, Wailuku, Maui, TMK: (2) 3-8-007:por. 040.**

Aloha e David Tamanaha,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned request for comments dated April 3, 2008. Maui Community College is proposing to build a two-story, 40,000-square foot science building. The project will include a modern laboratory, classrooms, lecture hall, faculty office space, telescope building and parking lot. The existing 2.9-acre site is currently used as a vacant, unpaved overflow parking lot for the college. OHA has reviewed the project and offers the following comments.

We appreciate that this project will, at minimum, meet Leadership in Energy & Environmental Design Silver Certification criteria. In addition, OHA commends the applicant for its proposal to use native vegetation, such as 'ilima, loulou, naupaka, pohinahina, naio papa, kou, 'ohai papa and milo, in its landscaping plan for subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place.

OHA rests on the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

David Tamanaha  
May 15, 2008  
Page 2

Thank you for the opportunity to comment. If you have further questions, please contact Sterling Wong (808) 594-0248 or e-mail him at [sterlingw@oha.org](mailto:sterlingw@oha.org).

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o  
Administrator

C: OHA Maui CRC Office

The Office of Environmental Quality Control  
235 South Beretania Street, Suite 702  
Honolulu, HI 96813

( Gail Renard, Project Planner  
Helber Hastert & Fee, Planners  
733 Bishop Street, Suite 2590  
Honolulu, HI 96813

PHONE (808) 594-1888

FAX (808) 594-1885



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

HRD08/3394

May 8, 2008

Thomas A. Fee, AICP  
Helber, Hastert & Fee  
Planners, Inc.  
Pacific Guardian Center  
7333 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813



**RE: Maui Community College New Science Building**  
**Evaluation of Potential Impacts on Traditional Cultural Practices**  
**Wailuku District, Island of Maui**  
**Tax Map Key: (2) 3-8-007:040**

Aloha e Thomas A. Fee,

The Office of Hawaiian Affairs is in receipt of your letter initiating consultation to evaluate the affect of the proposed construction of a new building at Maui Community College (MCC) on traditional cultural practices. Based on the information contained within your letter, it is our understanding that the proposed building will be constructed on MCC's existing campus in an area that currently functions as a gravel parking lot with an unused volleyball court.

Despite the previously uses of the proposed project area, there is still the potential that cultural resources may exist subsurface. Your letter indicates that an archaeological inventory survey (survey) will be conducted for the project area. OHA requests the opportunity to review the findings of the survey and seeks assurances the survey will submitted to the Department of Land and Natural Resources-Historic Preservation Division for review and approval.

While OHA has no additional comments at this time, we look forward to continued consultation with you regarding the results of your findings. Thank you for initiating communication with OHA regarding this matter. Should you have any questions, please contact Keola Lindsey, Lead Advocate-Culture at (808) 594-1904 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,

A handwritten signature in black ink, appearing to read "Clyde W. Nāmu'o".

Clyde W. Nāmu'o  
Administrator

C: OHA Maui CRC Office

**Helber Hastert & Fee**  
*Planners, Inc.*

September 30, 2008

Mr. Clyde W. Nāmu'ō, Administrator  
State of Hawaii  
Office of Hawaiian Affairs  
711 Kapi'olani Boulevard, Suite 500  
Honolulu, HI 96813



**Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Nāmu'ō,

Thank you for your letter dated May 8, 2008 (HRD08/3394) regarding the evaluation of potential impacts on traditional cultural practices from the subject project as well as your letter of May 15, 2008 (HRD08/3394C) regarding the project's Draft Environmental Assessment (EA). We offer the following responses to comments contained in both letters.

The archaeological inventory survey (AIS) (dated March 2008) requested in your May 8, 2008 letter was included as Appendix A in the Draft EA, which was provided to your agency in April 2008. The AIS was subsequently revised to incorporate minor edits suggested by the State Historic Preservation Division (SHPD), which accepted the document in July 2008. The Final EA, which will also be distributed to you, will include the revised AIS (dated July 2008) as Appendix A. All relevant project correspondence with the SHPD will be included in the Final EA.

As stated in the Draft EA, an archaeological monitor will be present during all ground altering activities that exceed a depth of 18-inches below the current ground surface to mitigate impacts to historic properties that may be identified in the subsurface deposit. In accordance with Section 6E, HRS, if any significant cultural deposits or human skeletal remains are encountered, the appropriate agencies will be contacted. The Office of Hawaiian Affairs will also be contacted if any Native Hawaiian burials are encountered.

We appreciate your input and participation in the EA process. Your letter and this response will be appended to the Final EA.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Fee'.

Thomas A. Fee, AICP  
President

Mr. Clyde W. Nāmu'ō, Administrator  
State of Hawaii Office of Hawaiian Affairs  
September 30, 2008  
Page 2

Cc: Office of Environmental Quality Control  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

LINDA LINGLE  
GOVERNOR



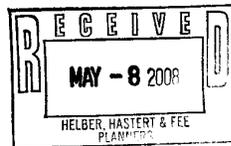
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
889 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

May 5, 2008

BRENNON T. MORIOKA  
DIRECTOR

Deputy Directors  
MICHAEL D. FORMBY  
FRANCIS PAUL KEENO  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:  
STP 8.2859



Mr. Thomas A. Fee, AICP  
Principal  
Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813

Dear Mr. Fee:

Subject: Maui Community College (MCC) Science Building  
Draft Environmental Assessment (Draft EA)

Thank you for requesting the Department of Transportation's (DOT) review of the proposed subject project to replace an existing aging facility with a new two-story 40,000 square feet science building. The DOT's comments are as follows:

1. The Draft EA stated that the college's 1990 master plan was updated in November 2006 by the MCC Long Range Development Plan (LRDP). The MCCLRDP projected a long-term design enrollment of 5,000 Full Time Equivalent (FTE) students. The current student enrollment is about 3,000 students with a FTE of about 1664 students. While the subject project's generated traffic alone is not expected to significantly impact State highways facilities (Kaahumanu Avenue and Kahului Beach Road), the DOT is concerned with the cumulative traffic from the MCC campus and the other developments in the area and its cumulative impacts to the State highways facilities, including the intersections accessing MCC.
2. The DOT concurs with the MCCLRDP recommendation that a formal traffic impact analysis report (TIAR) should be prepared at a later date and requests that the DOT Highways Division, Maui District Office and Planning Branch be consulted in advance of the preparation of the TIAR.
3. At times deemed necessary by the Highways Maui District Engineer, MCC may be asked to periodically consult with the DOT Highways Division, Maui District Office and Planning Branch for updates, plans and traffic information.

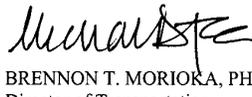
Mr. Thomas A. Fee, AICP  
May 5, 2008  
Page 2

STP 8.2859

4. In the event that MCC changes the LRDP and such modifications result in a need for additional traffic mitigation measures and road/intersection improvements at the State highways, MCC could be required to provide and implement the mitigation measures and highway improvements.
5. The DOT requests that a copy of the MCCLRDP be provided to the DOT-Statewide Transportation Office for information, reference and distribution to other DOT staff.

We appreciate the opportunity to provide comments.

Very truly yours,

  
for BRENNON T. MORIOKA, PH.D., P.E.  
Director of Transportation

c: Helber Hastert & Fee, Planners, Inc.  
Office of Environmental Quality Control

LINDA LINGLE  
GOVERNOR



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

BRENNON T. MORIOKA  
DIRECTOR

Deputy Directors  
MICHAEL D. FORMBY  
FRANCIS PAUL KEENO  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2897

LINDA LINGLE  
GOVERNOR



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

BRENNON T. MORIOKA  
DIRECTOR

Deputy Directors  
MICHAEL D. FORMBY  
FRANCIS PAUL KEENO  
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2859

'08 JUN -5 P1:16

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

June 2, 2008

May 5, 2008

Mr. Jeffrey S. Hunt, AICP  
Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Mr. Thomas A. Fee, AICP  
Principal  
Helber, Hastert & Fee Planners  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813

Dear Mr. Hunt:

Dear Mr. Fee:

Subject: Maui Community College (Science Building)  
Special Management Area Use Permit Application (SM1 2008/0008)  
TMK: 3-8-007: 040

Subject: Maui Community College (MCC) Science Building  
Draft Environmental Assessment (Draft EA)

Thank you for your transmittal requesting the State Department of Transportation's (DOT) review of the subject project.

Thank you for requesting the Department of Transportation's (DOT) review of the proposed subject project to replace an existing aging facility with a new two-story 40,000 square feet science building. The DOT's comments are as follows:

The DOT's prior comment on the proposed project in letter STP 8.2859 dated 5/5/08 (copy attached) is still applicable. In addition, the DOT Highways Division offers the following comments:

1. The transport of oversized/overweight materials and equipment on State roads must be approved by the DOT Highways Division Maui District Office.
2. DOT Highways Division permit approval including any environmental approvals, is required for all work done within, adjoining or affecting the State highway right-of-way.

1. The Draft EA stated that the college's 1990 master plan was updated in November 2006 by the MCC Long Range Development Plan (LRDP). The MCCLRDP projected a long-term design enrollment of 5,000 Full Time Equivalent (FTE) students. The current student enrollment is about 3,000 students with a FTE of about 1664 students. While the subject project's generated traffic alone is not expected to significantly impact State highways facilities (Kaahumanu Avenue and Kahului Beach Road), the DOT is concerned with the cumulative traffic from the MCC campus and the other developments in the area and its cumulative impacts to the State highways facilities, including the intersections accessing MCC.
2. The DOT concurs with the MCCLRDP recommendation that a formal traffic impact analysis report (TIAR) should be prepared at a later date and requests that the DOT Highways Division, Maui District Office and Planning Branch be consulted in advance of the preparation of the TIAR.
3. At times deemed necessary by the Highways Maui District Engineer, MCC may be asked to periodically consult with the DOT Highways Division, Maui District Office and Planning Branch for updates, plans and traffic information.

The DOT appreciates the opportunity to provide comments.

Very truly yours,

*Francis Paul Keeno*

for BRENNON T. MORIOKA, PH.D., P.E.  
Director of Transportation

Attach.

Mr. Thomas A. Fee, AICP  
May 5, 2008  
Page 2

STP 8.2859

4. In the event that MCC changes the LRDP and such modifications result in a need for additional traffic mitigation measures and road/intersection improvements at the State highways, MCC could be required to provide and implement the mitigation measures and highway improvements.
5. The DOT requests that a copy of the MCCLRDP be provided to the DOT-Statewide Transportation Office for information, reference and distribution to other DOT staff.

We appreciate the opportunity to provide comments.

Very truly yours,



*to* BRENNON T. MORIOKA, PH.D., P.E.  
Director of Transportation

c: Helber Hastert & Fee, Planners, Inc.  
Office of Environmental Quality Control

**Helber Hastert & Fee**  
Planners, Inc.

September 30, 2008

Dr. Brennon T. Morioka, Ph.D., P.E.  
Director  
State of Hawaii  
Department of Transportation  
869 Punchbowl Street  
Honolulu, HI 96813-5097



**Maui Community College Science Building  
Environmental Assessment and  
Special Management Area Use Permit Application #SM1 2008/0008  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Dr. Morioka,

Thank you for your department's comments of May 5, 2008 (STP 8.2859) and June 2, 2008 (STP 8.2897) regarding the subject project's Draft Environmental Assessment (EA) and Special Management Area Use Permit (SMAUP) application, respectively. This letter offers responses to both sets of comments.

**May 5, 2008 (STP 8.2859)**

1. Section 4.7 of the Draft EA addressed potential cumulative impacts, including traffic impacts. The EA identified reasonably foreseeable projects in its cumulative impact assessment (e.g., MCC Swap Meet, YMCA and the implementation of the MCC LRDP). The buildout of the campus will happen over an undetermined time period based on program growth, funding appropriations and demand. As noted in the Draft EA, the LRDP included recommendations for on- and off-site roadway and intersection improvements to mitigate long-range MCC-related traffic impacts and also recommended a formal traffic impact analysis report be prepared (your second point) when a substantial increase in student population is likely, to determine the validity and timing of the improvements. MCC looks forward to continuing its working relationship with DOT to manage project-related traffic impacts.
2. We note the Department of Transportation's (DOT) concurrence with the Maui Community College (MCC) LRDP recommendation—reported in the Draft EA—that a formal traffic impact analysis (TIAR) report be prepared at a later date. Preparation of the TIAR will be done in consultation with DOT, as recommended.
3. MCC has been informed it may be periodically asked by the DOT Highways Division Maui District Office and Planning Branch for updates, plans and traffic information.

Dr. Brennon T. Morioka, Ph.D., P.E.  
State of Hawaii Department of Transportation  
September 30, 2008  
Page 2

4. Your comments concerning the possible provision and implementation of mitigation measures and highway improvements are acknowledged.
5. The applicant has provided a copy of the MCC LRDP to the DOT – Statewide Transportation Office.

**June 2, 2008 (STP 8.2897)**

1. The construction contractor will be informed that it must seek approval from the DOT Highways Division Maui District Office for transporting oversized/overweight materials or equipment on State roads.
2. The construction contractor will be informed that any work done within, adjoining or affecting the State highway right-of-way requires DOT Highways Division approval.

We appreciate your input and participation in the EA and SMAUP process. Your letter and this response will be appended to the Final EA.

Sincerely,

Thomas A. Fee, AICP  
President

Cc: Office of Environmental Quality Control  
Mr. Jeffrey S. Hunt, Maui County Planning Director  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.



UNIVERSITY  
of HAWAII  
MĀNOA

May 8, 2008  
EA: 0308

Mr. David Tamanaha  
Maui Community College  
310 Ka'ahumanu Avenue  
Kahului, HI 96732

Dear Mr. Tamanaha:

Draft Environmental Assessment  
Maui Community College Science Building  
Wailuku District, Maui

The proposed action is to create a new science building on the Kahului Campus of Maui Community College. The new facility would be created on a gravel overflow parking lot and an unused volleyball court on the west side of campus. The two-story structure will be approximately 40,000 square feet, and constructed of reinforced concrete. A unique feature of the building's design will be the incorporation of sustainable technologies and sustainable design principles. The building will utilize photovoltaic panels, wind turbines, and/or solar thermal panels to lessen electric demands. Also included in the project are a 61-stall parking lot and a telescope facility. At a minimum, the project will meet LEEDS Silver Certification Criteria.

This review was conducted with the assistance of Olwen Huxley, Center for Smart Building and Community Design; and Ryan Riddle, Environmental Center.

#### General Comments

Science Education is an important part of the modern college curriculum. Facilities for teaching science need to include both classrooms and labs that are up-to-date and employ cutting edge technology. The present science building at Maui Community College is too small and inadequate to train students in science whether they hope to be a scientist, or to take courses to better understand the modern world. The proposed new science facility is almost three times the size of the older building which means there should be more space available to teach. We agree that the facility is needed and a determination of a Finding of No Significant Impact is warranted. We note that the building will meet the LEED green building rating and we applaud the University's effort in constructing a facility with a smaller environmental footprint than a standard designed building.



May 8, 2008  
Page 2

the University's effort in constructing a facility with a smaller environmental footprint than a standard designed building.

In addition to our general comments, we also have several specific comments.

#### Science Building (p. 6-12)

We are not sure what constitutes a "state of the art" science education facility. Is it the energy saving features that make it state of the art, or is it the design of the space, labs etc. or some combination of all of these factors? Perhaps you could elaborate on why the proposed building is a state-of-the-art facility.

We would like to know what the baseline energy calculations are for the proposed building versus the baseline calculations for a standard design building. We also think it would be helpful to understand the extent of the calculated energy and water savings. It would be helpful to have the preliminary LEED's scorecard included in the final environmental assessment.

Figure 6 on page 11 depicts a computer rendering of what the proposed science building will look like when it is completed. We note that there are photovoltaic panels on the side of the building facing the entry court. We wonder how efficient these side-mounted panels will be. Have you considered putting additional panels in a structure covering the proposed new parking lot to get additional electrical power instead of side panels?

We note on page 12 that the building will utilize vertical axis wind turbines that are more "bird friendly" than other types of windmills. We also applaud the use of a "green roof" to cut down the heat gain to the interior spaces from the roof.

We wonder if any of the spaces inside the building could incorporate natural ventilation, taking advantage of the trade winds, rather than having artificial cooling in all of the building.

#### Utilities and Infrastructure (p. 13-14)

With the development of a telescope building as part of the science building, we think that light pollution from exterior lighting could be a problem. Using full cut-off type high pressure sodium lights should help. We suggest that the minimum number of lights be deployed around the building especially in the area around the telescope facility. We also suggest that all exterior lighting should meet IESNA and ASHRAE energy and lighting density standards.

We were wondering whether sea water air conditioning or a ground source heat pump were considered instead of a conventional air conditioning system. The campus is situated close to the coastline and could draw water from an outfall pipe that might be routed near the harbor

May 8, 2008

Page 3

out to deeper waters. It might not be cost effective to use sea water air conditioning to cool just one building on campus, but what if other buildings could also be connected?

On the top of page 14 there is a list of energy efficiency and sustainability measures that will be used in the building's air conditioning and ventilation systems. Air flow calculations are critical to determining chiller loads. If the calculations are not done correctly the system can be oversized causing the interior to be uncomfortably cold. Also, the ventilation system should be designed for approximately 6 air changes per hour. Anything higher than that may be wasteful.

In the section on Wastewater and Storm Drainage on page 14, it is not clear whether the wastewater or storm water will be collected for reuse. In the case of the wastewater, it will be carried to the County's Wastewater Reclamation Facility for treatment and discharge. Is the reclaimed water from this facility to be used in the non-potable water system currently utilized by Maui Community College for irrigation? In the case of the storm water, will the water retained in the underground retention system be reused for irrigation or other purposes on campus?

**Roadways, Parking and Circulation (p.15)**

Again we ask if the parking area could be used for additional photovoltaic panels. A platform could be erected over the parking area and used to generate more electricity while shading the cars parked there from the sun. We would also like to know if the use of pervious materials for the parking lot is being considered. A workshop on the use of pervious materials was held on Maui several years ago and the information from that workshop should still be available from the Sea Grant College Program.

Will there be any provision for preferred parking for vehicles using renewable fuels or alternative energy vehicles, such as electric cars or hybrids? Preferred parking might encourage students, faculty and staff to purchase those types of vehicles.

**Landscape Plan (p.15-16)**

Has the landscape plan considered the use of drip irrigation for watering the plants? Drip irrigation uses less water and has proven beneficial for the growth of plants.

The EA states in the last paragraph on page 15 that native Hawaiian or Polynesian-introduced plants will be used as much as possible. Who will decide when a native plant is possible or when an introduced plant will be used?

May 8, 2008

Page 4

**Soils and Topography (p.31)**

The scheduling of any land clearing should take place in the late spring or early summer to take advantage of the drier conditions during that time and when Maui Community College is not in regular session so fewer students will be inconvenienced.

Thank you for the opportunity to review this Draft EA.

Sincerely,



Peter Rappa  
Environmental Review Coordinator

cc: OEQC  
Ryan Riddle  
Olwen Huxley  
Gail Renard, Helber Hastert & Fee  
James Moncur, WRRC

**Helber Hastert & Fee**  
Planners, Inc.

September 30, 2008

Mr. Peter Rappa  
Environmental Review Coordinator  
University of Hawaii  
Environmental Center  
2500 Dole Street, Krauss Annex 19  
Honolulu, HI 96822



Maui Community College Science Building  
Environmental Assessment  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)

Dear Mr. Rappa,

Thank you for your letter dated May 8, 2008 regarding the subject project. We note your support of the project and the anticipated Finding of No Significant Impact. We offer the following responses to your specific comments.

**Science Building**

A “state-of-the-art” science education facility refers to the use and incorporation of the latest technologies, and even emerging technologies into the project’s design, systems, materials, equipment and other building related items, including energy efficient technologies.

The baseline energy model will be based on the minimum requirements from ASHRAE Standard 90.1-2004 for the building envelope, lighting, HVAC systems and Service Water heating efficiencies. Based on the preliminary energy calculation, there will be about 25% of energy savings over a building of standard design. Standard-designed buildings must comply the minimum requirements from Maui County Energy Code, while the ASHRAE Standard 90.1-2004 is more stringent compared to Maui County Energy Code.

This project includes ultra-low flow plumbing fixtures and water saving faucets. The project will also include a highly efficient cooling tower water treatment system that will minimize blow down and system water usage, resulting in the use of at least 30 to 40% less water than a standard facility. The water savings will be approximately 30% over standard water conserving type fixtures as mandated by the Energy Policy Act. The LEED scorecard will be included in the Final EA.

Depending on the time of day, side-mounted photovoltaic panels have efficiencies of 0% to 30%, which is low compared to roof-mounted panels. However, they will be a good demonstration tool. We appreciate your valuable suggestion of providing covered parking using PV panels; however, project funding precludes including of this type of structure.

Mr. Peter Rappa  
University of Hawaii Environmental Center  
September 30, 2008  
Page 2

Although there will be operable windows, the building will be air conditioned and mechanically ventilated during operating hours. Due to strict laboratory air change requirements and environmental conditions that need to be maintained, natural ventilation does not appear to be appropriate for this type of facility.

**Utilities and Infrastructure**

The Maui Community College telescope instructor was consulted on lighting concerns during the design process. Other than using full cut off light fixtures and the possible use of red colored canopy lighting and red colored lighting within the telescope building during star gazing, no special exterior lighting requirements were identified. Exterior lighting will consist of full cutoff light fixtures and lamps to match an on-going site lighting project. Exterior lighting will be designed to meet lighting levels recommended by IESNA. However, State law requires the interior and exterior lighting power densities be designed according to the Hawaii Model Energy Code, which is almost identical to ASHRAE 90.1.

Sea water air conditioning and ground source heat pump were considered in the design process but deemed as not feasible due to the smaller size of the facility. If a large plant were being constructed to serve adjacent facilities, then a larger central plant utilizing sea water technology, or ground source heat pumps may be more attractive due to the economy of scale. Furthermore, funding for this project is related specifically to the science building and cannot be used to support overall campus infrastructure.

Air change rates for the planned laboratory classrooms were calculated to meet the special air changes per hour (ACH) requirements per ASHRAE standards for laboratory spaces and recommendations made by the laboratory consultant on the project. Air change requirements are also dictated by cooling loads and to maintain certain room pressure. The air change rates for general spaces (Offices, Classrooms, etc.) are calculated to meet the cooling load. Variable Air Volume systems will be installed to provide ACH to the space as needed to save energy.

The Final EA will clarify that the source of MCC’s non-potable water irrigation water is an on-site brackish water well. As stated in Section 4.4.5 of the Draft EA, storm drainage flows from the site will either sheet flow from the site and either percolate into the ground or be directed to the existing drainage system. Section 3.4.5 of the Draft EA describes the existing drainage system (i.e., “underground piping between the drain inlets are then discharged into the retention basin located northeast of the site (adjacent to the main MCC parking lot)”). The Final EA will clarify this in the Proposed Action description.

**Roadways, Parking and Circulation**

Maui County does not allow the use of pervious materials for the parking areas; therefore, the proposed parking lot will not include their use.

MCC is considering the establishment of preferential parking for vehicles using renewable fuels or alternative energy vehicles, such as electric cars or hybrids.

**Landscape Plan**

Drip irrigation was considered, but its maintenance is a concern, since the maintenance divisions of most public agencies do not usually have the manpower to maintain drip systems. Drip systems have many outlet points for the distribution of water, and therefore more points for damage in high traffic public areas. Buried drip systems can be effectively used, but due to their

Mr. Peter Rappa  
University of Hawaii Environmental Center  
September 30, 2008  
Page 3

relatively shallow depth, it is also subject to damage. Because they are buried, the location of the damaged portion can be hard to determine. Drip system filters also must be regularly maintained.

The Landscape Architect for the MCC Science Building project will determine when it is appropriate to use native plants. Use of native plants will be predicated on availability and site conditions. All plant materials selected will be those considered easy to grow and low maintenance.

**Soils and Topography**

The project schedule, including any land clearing, will depend on project funding, timeliness of attaining permit and other outside factors, and therefore there may not be flexibility in scheduling. The intent is to conduct the site work when MCC classes are not in regular session.

We appreciate your input and participation in the EA process. Your letter and this response will be included in the Final EA.

Sincerely,



Thomas A. Fee, AICP  
President

Cc: Office of Environmental Quality Control  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

CHARMAINE TAVARES  
Mayor  
CHERYL K. OKUMA, Esq.  
Director  
GREGG KRESGE  
Deputy Director



COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT  
2200 MAIN STREET, SUITE 175  
WAILUKU, MAUI, HAWAII 96793

April 9, 2008

Thomas A. Fee, AICP  
Herbert, Hastert & Fee  
Pacific Guardian Center  
733 Bishop Street Suite 2590  
Honolulu, HI 96813

**SUBJECT: MAUI COMMUNITY COLLEGE NEW SCIENCE BUILDING  
DRAFT EA PRE-ASSESSMENT CONSULTATION  
TMK (2) 3-8-007:040**

Dear Mr. Fee,

We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments
  - a. Although the building is reinforced concrete, applicant should include a plan for the management of related construction waste such as packaging. Any demolition waste should be recycled or reused if possible and quantities and destinations of the materials provided to the Division.
2. Wastewater Reclamation Division comments:
  - a. Although wastewater system capacity is currently available as of 2/29/08, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.
  - b. Wastewater contribution calculations are required before building permit is issued.
  - c. Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees.

TRACY TAKAMINE, P.E.  
Solid Waste Division  
DAVID TAYLOR, P.E.  
Wastewater Reclamation  
Division



- d. Developer is required to fund any necessary on-site or off-site improvements to collection system.
- e. Building should not be constructed over any sewer lines and vehicular access must be provided to all manholes for maintenance.
- f. Laboratory and/or kitchen facilities within the proposed project shall comply with pre-treatment requirements (including grease interceptors, sample boxes, screens etc.)
- g. A discussion of chemicals used in the building and their disposal methods should be included.
- h. Non-contact cooling water and condensate should not drain to the wastewater system.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

Cheryl Okuma, Director

**Helber Hastert & Fee**  
Planners, Inc.

September 30, 2008

Ms. Cheryl Okuma, Director  
County of Maui  
Department of Environmental Management  
2200 Main Street, Suite 175  
Wailuku, HI 96793



**Maui Community College Science Building  
Environmental Assessment – Pre-Assessment Consultation  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Ms. Okuma,

Thank you for your division's pre-assessment consultation comments of April 9, 2008 regarding the subject project. Many of the comments were addressed in the Draft Environmental Assessment (EA), which was published before your comments were received. We offer the following responses to your comments.

**Solid Waste Division**

- a. As stated in Section 4.4.7 of the Draft EA, the construction contractor will develop a site-specific construction waste management plan for the project. Furthermore, construction practices will recycle or salvage at least 50% of non-hazardous construction waste and site clearing debris from the municipal landfill to meet LEED requirements.

**Wastewater Reclamation Division**

Your comments on wastewater system capacity, calculations, fees, and improvements (a. – d.) have been forwarded to Maui Community College and its project designers.

- e. Buildings associated with the project will not be constructed over any sewer lines and vehicular access will be proved to all manholes.
- f. Laboratory and/or kitchen facilities within the proposed project will comply with pre-treatment requirements (including grease interceptors, sample boxes, screens, etc.).
- g. Sections 3.4.8 and 4.4.8 of the Draft EA discuss the types of chemicals used by MCC's Science Division, as well as their disposal methods.
- h. Non-contact cooling water and condensate will be discharged into dry wells on the site and not into the wastewater system.

Ms. Cheryl Okuma  
County of Maui Department of Environmental Management  
September 30, 2008  
Page 2

We appreciate your input and participation in the EA process. Your letter and this response will be appended to the Final EA.

Sincerely,

Thomas A. Fee, AICP  
President

Cc: Office of Environmental Quality Control  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.



May 8, 2008

Ms. Gail Renard, Project Planner  
Helber Hastert & Fee, Planner  
733 Bishop Street, Suite 2590  
Honolulu, Hawaii 96813

Dear Ms. Renard,

Subject: Maui Community College Science Building  
Special Management Area Application (SM1 2008/0008) and Draft  
Environmental Assessment  
130 Ka'ahumanu Avenue  
Kahului, Hawaii 96732  
Tax Map Key: (2) 3-8-007:040 (por.)

Thank you for allowing us to comment on the Special Management Area Application and the Draft Environmental Assessment for the subject project.

In reviewing our records and the information received, Maui Electric Company (MECO) has no objections to the subject project at this time. Based on the rough electrical loads indicated, we highly encourage the customer's electrical consultant to submit electrical drawings and a project time schedule as soon as practical so that proper service can be provided on a timely basis. The load mentioned may impact our system where additional upgrades of our facilities may be required.

We also suggest that the customer or their consultant make contact with Ray Cibulskis of our Demand Side Management (DSM) group at 872-3226 to review potential energy conservation and efficiency opportunities for their project.

Should you have any questions or concerns, please call me at 871-2340.

Sincerely,

Ray Okazaki  
Staff Engineer

Cc: Ray Cibulskis – MECO DSM  
David Tamanaha – Maui Community College  
Danny Dias – County of Maui-Dept. of Planning  
Office of Environmental Quality Control



**Helber Hastert & Fee**  
Planners, Inc.

September 30, 2008

Mr. Ray Okazaki  
Staff Engineer  
Maui Electric Company, Ltd.  
P.O. Box 398  
Kahului, HI 96733-6898



**Maui Community College Science Building  
Environmental Assessment and  
Special Management Area Use Permit Application #SM1 2008/0008  
Wailuku District, Maui, Hawaii  
TMK: (2) 3-8-007:040 (por.)**

Dear Mr. Okazaki,

Thank you for your department's comments of May 8, 2008 regarding the subject project's Draft Environmental Assessment (EA) and Special Management Area Use Permit (SMAUP) application. We offer the following responses to your comments.

We note that Maui Electric Company has no objections to the project. As recommended in your letter, the applicant will work with MECO as soon as practical.

We appreciate your input and participation in the EA and SMAUP process. Your letter and this response will be appended to the Final EA.

Sincerely,

Thomas A. Fee, AICP  
President

Cc: Office of Environmental Quality Control  
Mr. Jeffrey S. Hunt, Maui County Planning Director  
Dr. Clyde Sakamoto, MCC Chancellor  
Mr. David Tamanaha, MCC Vice Chancellor of Administrative Affairs  
Mr. Maynard Young, UH Office of Capital Improvements  
Mr. Kendall Ellingwood, III, Design Partners, Inc.

**APPENDIX C**  
LEED Scorecard

