

**POLICE DEPARTMENT**  
COUNTY OF MAUI



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MAYOR

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YOUR REFERENCE

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JUN 23

**GARY A. YABUTA**  
CHIEF OF POLICE

**CLAYTON N.Y.W. TOM**  
DEPUTY CHIEF OF POLICE

June 4, 2009

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

RE: FINAL ENVIRONMENTAL ASSESSMENT FOR PROPOSED KIHEI POLICE  
STATION AT TMK: 2-2-002:070 (POR.), KIHEI MAUI, HAWAII

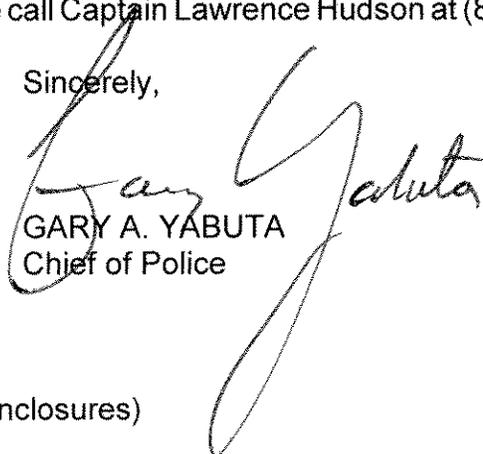
Dear Ms. Kealoha:

The County of Maui, Maui Police Department has reviewed the Final Environmental Assessment (Final EA) for the subject project, and has issued a Finding Of No Significant Impact (FONSI) determination. Please publish notice of the FONSI determination for this project in the next available OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form, one (1) copy of the document in pdf format, two (2) copies of the Final EA, and the project summary.

If you have any questions, please call Captain Lawrence Hudson at (808) 244-6435.

Sincerely,

  
GARY A. YABUTA  
Chief of Police

Enclosures

cc: Ms. Rowena Dagdag-Andaya,  
Munekiyo & Hiraga, Inc. (w/o enclosures)

# **Final Environmental Assessment**

## **PROPOSED KIHEI POLICE STATION**

**TMK No. 2-2-002:070 (Por.)  
and 2-2-002:069 (Por.)**

**Prepared for:**

**County of Maui,  
Police Department**

**Approving Agency:**

**County of Maui,  
Police Department**

**June 2009**



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## Executive Summary

**Project Name:** Proposed Kihei Police Station

**Type of Document:** Draft Environmental Assessment

**Legal Authority:** Chapter 343, Hawai`i Revised Statutes

**Anticipated Determination:** Finding of No Significant Impact (FONSI)

**Applicable Environmental Assessment review “Trigger”:** Proposed Use of County Lands and Funds

**Location:** Maui Island  
Kihei  
TMK No. 2-2-002:070 (por.) and 2-2-002:069 (por.)

**Landowner:** County of Maui and Haleakala Ranch Company

**Applicant:** County of Maui, Police Department

**Approving Agency:** County of Maui, Police Department  
55 Mahalani Street  
Wailuku, Hawai`i 96793  
Contact: Captain Larry Hudson  
Phone: (808) 270-6435

**Consultant:** Munekiyo & Hiraga, Inc. (under contract to the County of Maui)  
305 High Street, Suite 104  
Wailuku, Hawai`i 96793  
Contact: Rowena Dagdag-Andaya  
Phone: (808) 244-2015

**Project Summary:** The County of Maui, Police Department proposes to develop a police station at Tax Map Key Nos. (2) 2-2-002:070 (por.) (Parcel 070) (subject property) in Kihei, Maui, Hawai`i. The proposed site is located primarily on a large County park parcel and is located east (mauka) of Pi`ilani Highway, in the vicinity of Kamali`i Elementary School. The subject property is owned by the County of Maui, Parcel 069 is owned by Haleakala Ranch and contains an easement providing access to the subject property from Kanani Road via Pi`ilani Highway.

Currently, the Kihei police district office is located in a 2,400 square foot space in the Kihei Town Center, across from Kalama Park. Much of the Police Department's operations at this location is incompatible with the surrounding commercial shopping center usage. Moreover, this office does not contain adequate space to accommodate the staff and functional requirements of the Kihei police district. There are currently approximately 33 police personnel assigned to the district.

The proposed police station will be a two-story building with a total floor area of 46,934 square feet on approximately ten (10) acres of land. The facility has been designed to accommodate the functional aspects of the Kihei police district, including office, meeting, and training areas, holding cells, and record storage. The police station will be operational 24 hours a day, seven days a week. Related improvements include site grading and landscaping, installation of underground utilities, roadway access, and vehicle parking.

In order to implement the project, a Community Plan Amendment (CPA) from "Park" use to "Public/Quasi-Public" use will be required for the subject property. The project will also involve the use of County lands and funds. The CPA and the use of County lands and funds are triggers for Chapter 343, Hawai'i Revised Statutes (HRS). As such, an Environmental Assessment (EA) has been prepared pursuant to Chapter 343, HRS, and Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement Rules. The EA documents the project's technical characteristics and environmental impacts, and advances findings and conclusions relative to the significance of the project.

The proposed project will require several land use entitlement approvals to proceed. A summary of the current land use parameters and the entitlement designations being sought for land use consistency with the proposed police station is presented in **Table 1**.

**Table 1. Land Use Parameters and Entitlement Designations**

<b>Land Use Parameter</b>	<b>Existing Designation</b>	<b>Proposed Designation</b>
State Land Use District	Agricultural: 10.24 acres	Urban: 10.24 acres
Kihei-Makena Community Plan	Park: 10.24 acres	Public/Quasi-Public: 10.24 acres
County Zoning	Agricultural: 10.24 acres	Public/Quasi- Public: 10.24 acres

# **I. PROJECT OVERVIEW**

# I. PROJECT OVERVIEW

## A. PROJECT LOCATION, CURRENT LAND USE, AND OWNERSHIP

The County of Maui is proposing the development of a new police station, located in Kihei, Maui, Hawai'i. See **Figure 1**. The subject properties are located east (mauka) of Pi'ilani Highway in the vicinity of Kamali'i Elementary School on Tax Map Key (TMK) Nos. (2) 2-2-002:070 (por.) (Parcel 070) and (2) 2-2-002:069 (por.) (Parcel 069). See **Figure 2**. The project site is approximately ten (10) acres in area and access to the site will be provided from Kanani Road via Pi'ilani Highway.

The project site is currently vacant and undeveloped and is bordered by agricultural pasture lands to the north, east, and south, and Pi'ilani Highway to the west, and residential uses beyond. See **Figure 3**. Parcel 070 is designated "Agricultural" by the State Land Use Commission, "Park" by the Kihei-Makena Community Plan, and "Agricultural" by Maui County zoning. Parcel 069 is designated "Agricultural" by the State Land Use Commission, "Agriculture" by the Kihei-Makena Community Plan, and "Agricultural" by Maui County zoning.

Parcel 070 is owned by the County of Maui and Parcel 069 is owned by Haleakala Ranch Company. While the proposed police station is located on Parcel 070, the existing access roadway to Pi'ilani Highway from the proposed police station is located on Parcel 069. The County of Maui has an access easement on Parcel 069.

## B. PROPOSED ACTION

The proposed police station will be a two-story building with a total floor area of 46,934 square feet on approximately ten (10) acres of land. See **Figure 4**, **Figure 5**, **Figure 6**, **Figure 7**, **Figure 8**, and **Appendix "A"**. The facility has been designed to accommodate the functional aspects of the Kihei police district, including office, meeting, and training areas, holding cells, and record storage. The police station will be operational 24 hours a day, seven days a week. Related improvements include site grading and landscaping, installation of underground utilities, detention basin, roadway access, and vehicle parking.

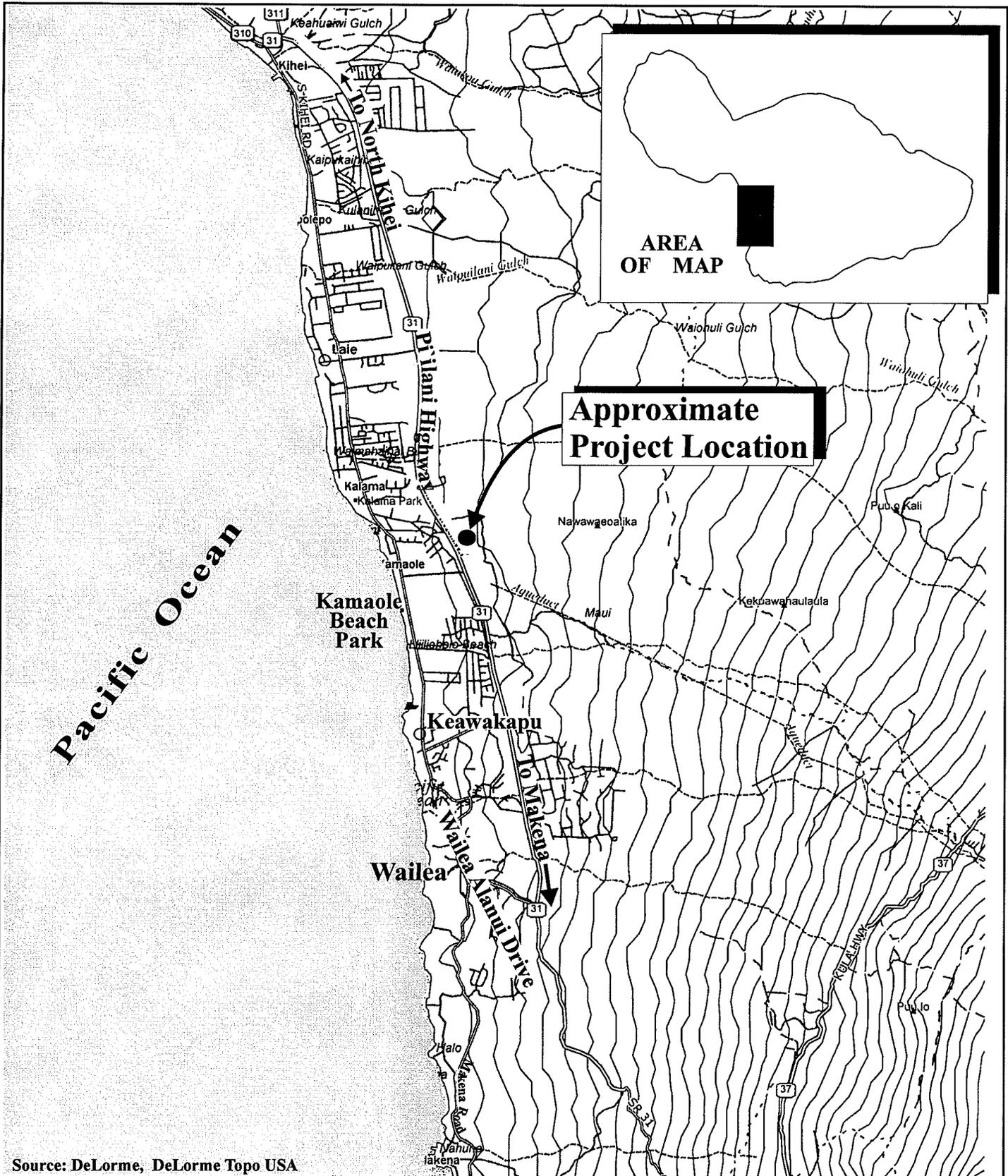
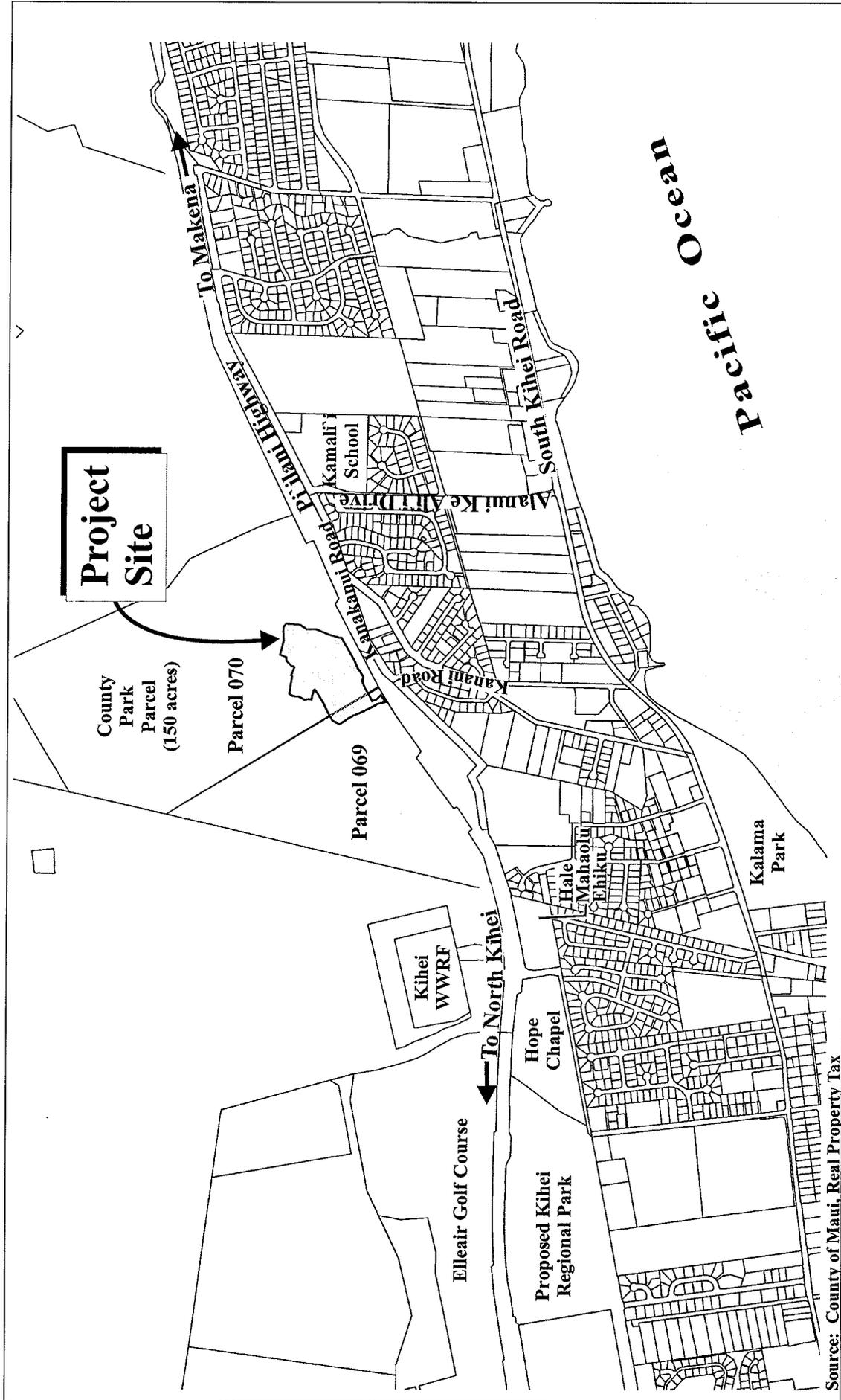


Figure 1

Proposed Kihei Police Station  
Regional Location Map

NOT TO SCALE





**Figure 2**

**Proposed Kihei Police Station  
Site Location Map**

NOT TO SCALE





**Southeast view of project site**



**South view of Pi'ilani Highway from Kanani Road  
(project site to the left)**

Source: Munekiyo & Hiraga, Inc.

**Figure 3**                      **Proposed Kihei Police Station**                      **NOT TO SCALE**  
**Site Photographs**

Prepared for: County of Maui, Police Department

  
**MUNEKIYO & HIRAGA, INC.**

MAI\Kihei Police\Site Photos

**Project Site**



- KEY**
- 1 Impound Parking
  - 2 Staff Parking
  - 3 Police Parking
  - 4 New Police Station
  - 5 Equipment Building
  - 6 Visitor Parking
  - 7 Detention Basin
  - 8 Central Plant
  - 9 Car Wash
  - 10 Fuel Station

Pi'ilani Highway

Source: Mitsunaga & Associates, Inc.

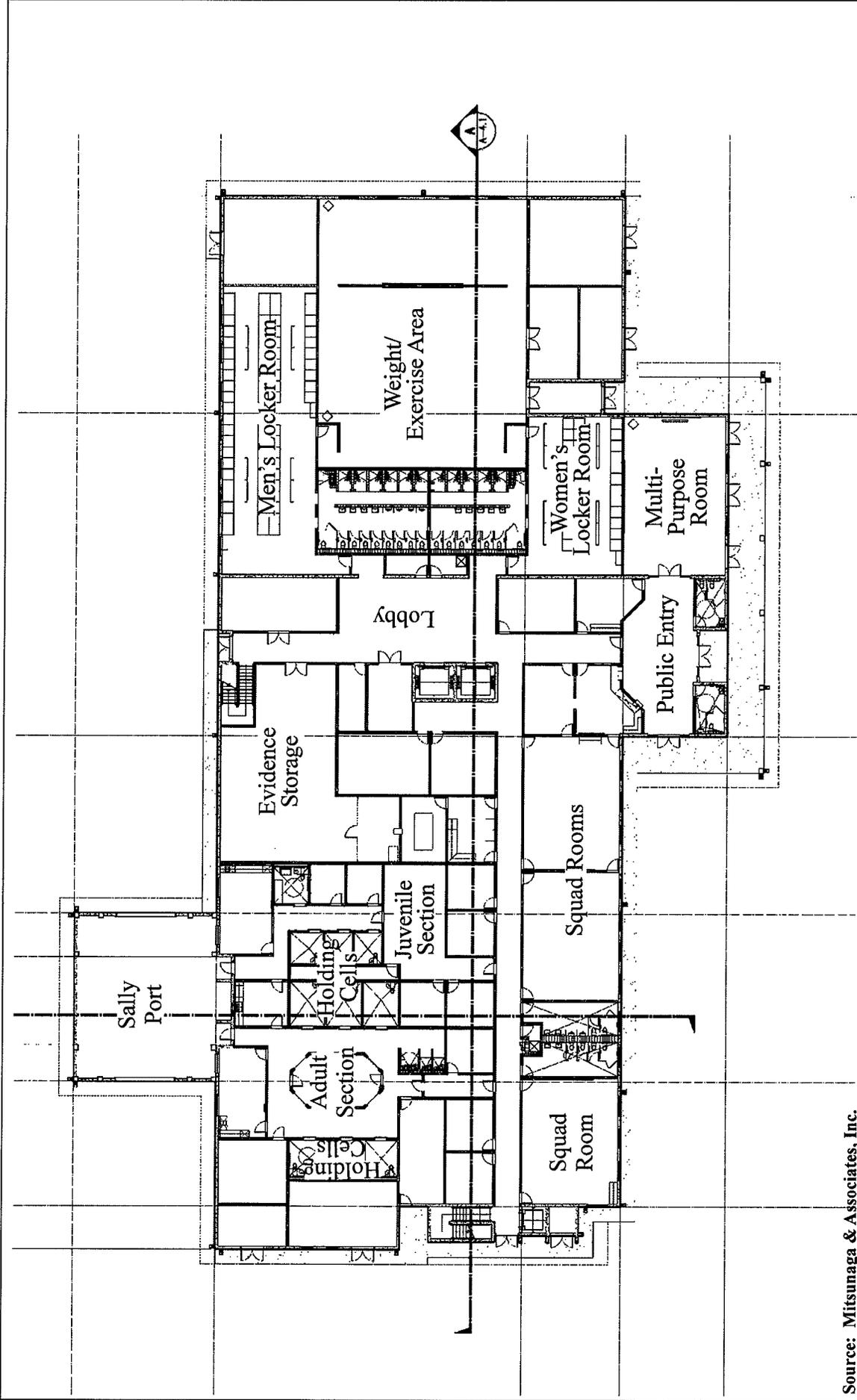
**Figure 4**

**Proposed Kihei Police Station  
Site Plan**

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Prepared for: County of Maui, Police Department



Source: Mitsunaga & Associates, Inc.

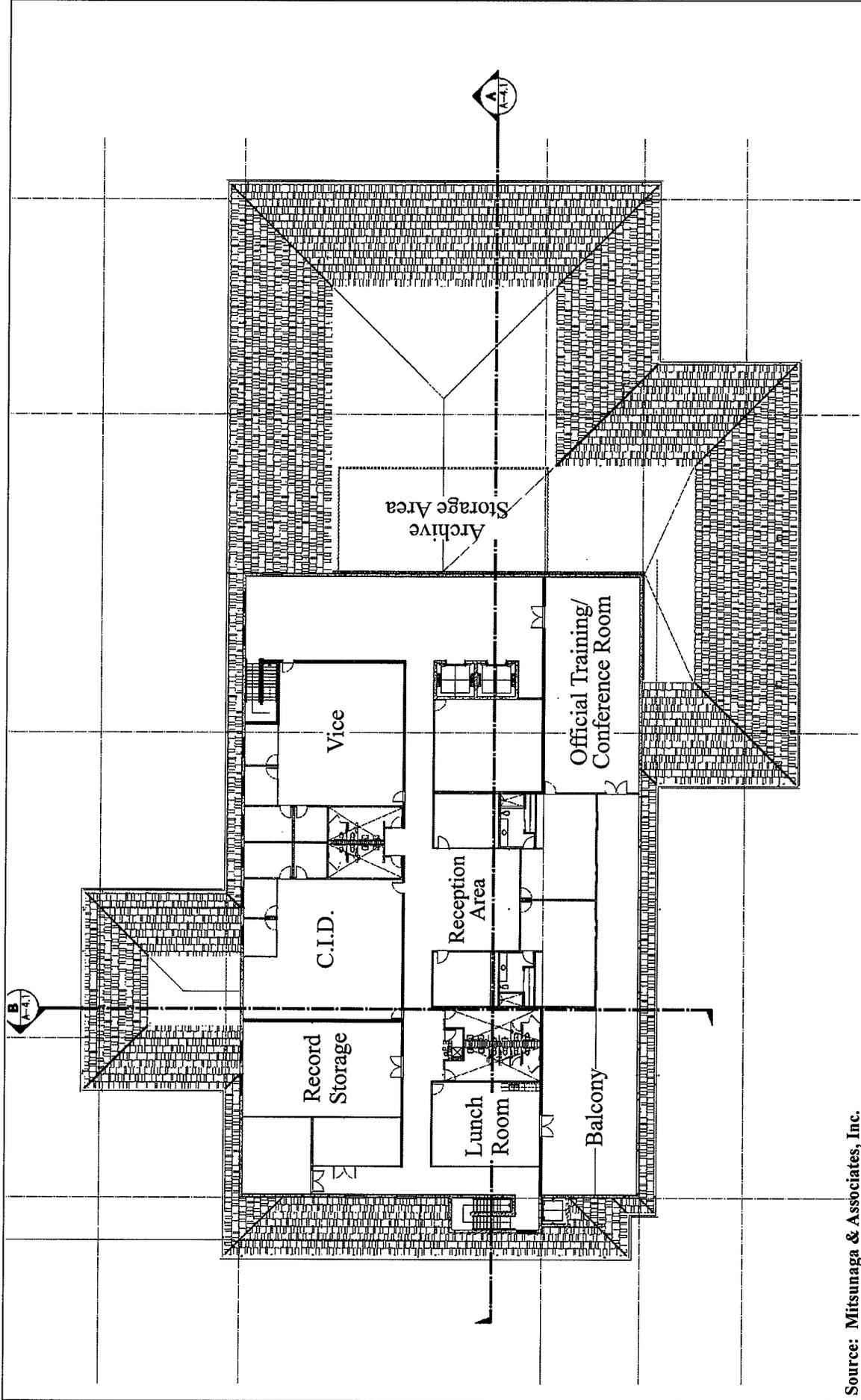
Figure 5



Proposed Kihei Police Station  
Ground Level Floor Plan

NOT TO SCALE

Prepared for: County of Maui, Police Department



Source: Mitsunaga & Associates, Inc.

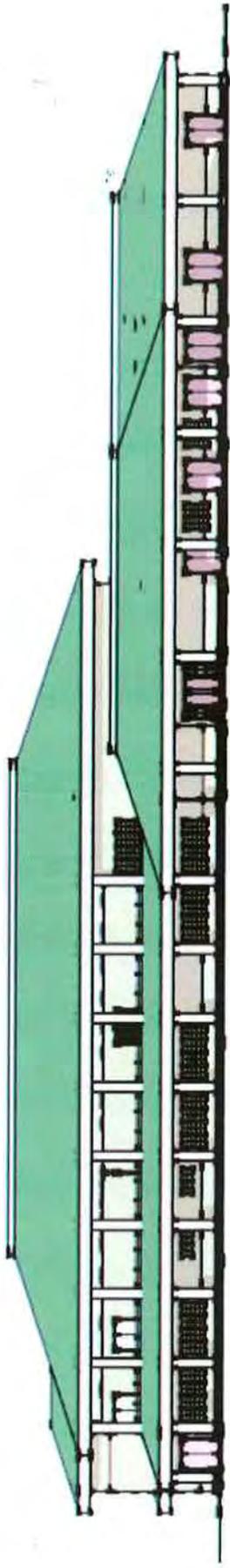
Figure 6



# Proposed Kihei Police Station Second Level Floor Plan

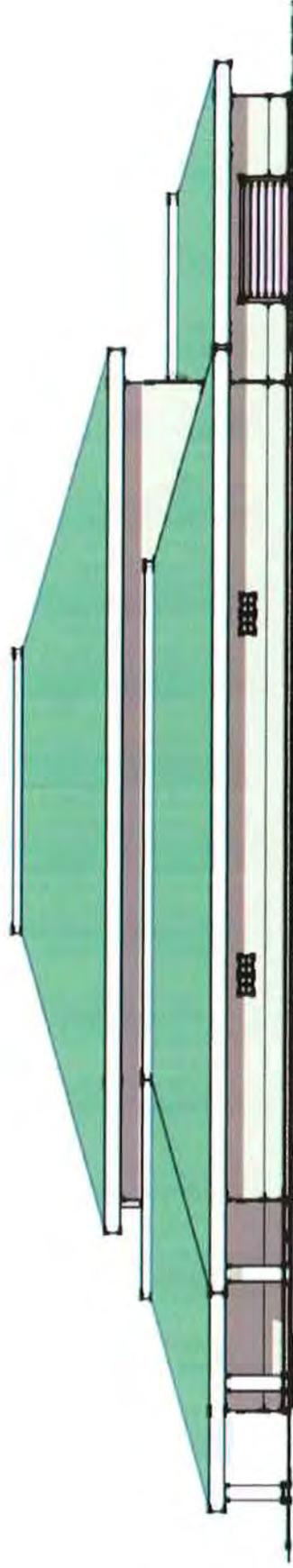
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Prepared for: County of Maui, Police Department



ENTRANCE

## West Elevation



SALLY PORT

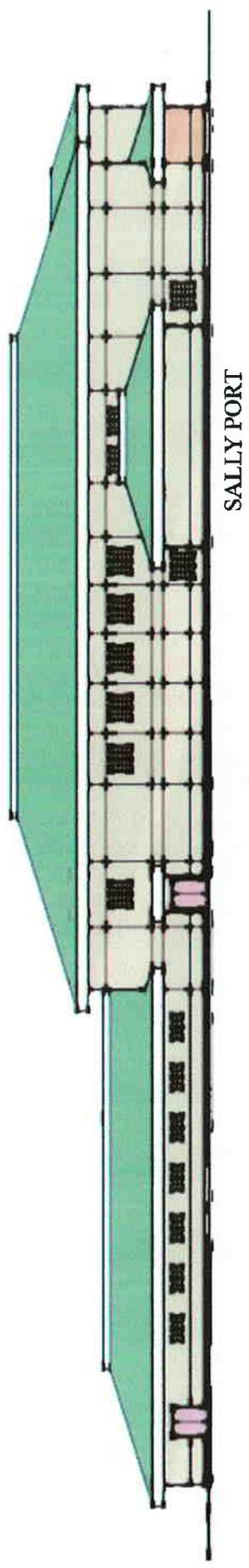
## South Elevation

Source: Mitsunaga & Associates, Inc.

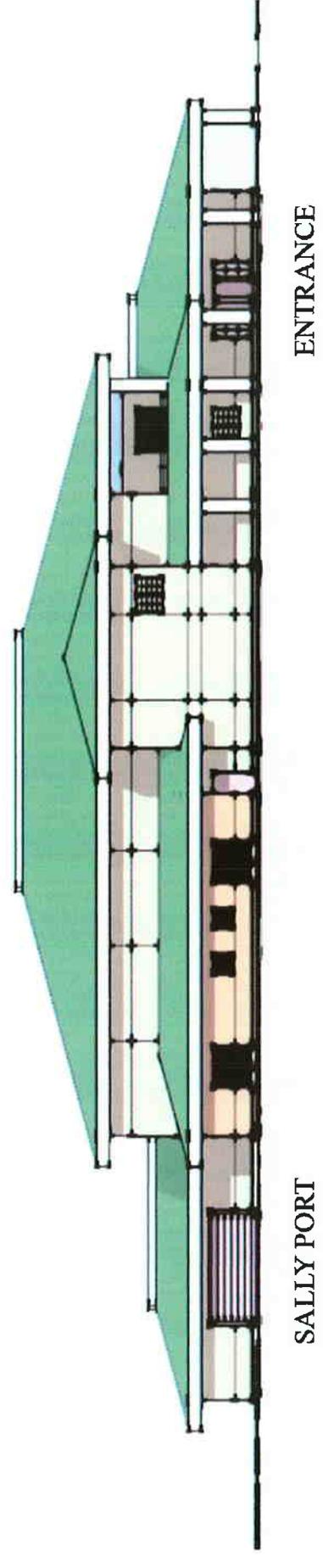
Figure 7

Proposed Kihei Police Station  
West and South Building Elevations

NOT TO SCALE



**East Elevation**



**North Elevation**

Source: Mitsunaga & Associates, Inc.

**Figure 8**

**Proposed Kihei Police Station  
East and North Building Elevations**

NOT TO SCALE

The proposed action is in keeping with the Police Department's mission to serve and protect the community. The Police Department is tasked with directing its operations toward the preservation of public peace, prevention of crime, detection and arrest of offenders of the law, protection of personal and property rights, and enforcement of all Federal and State laws and County ordinances. The proposed action will assist the department in fulfilling its mission for the South Maui region.

**C. PROJECT NEED**

Currently, the Kihei police district office is located in a 2,400 square foot space in the Kihei Town Center, across from Kalama Park. Much of the Police Department's operations at this location is incompatible with the surrounding commercial shopping center usage. Moreover, this office does not contain adequate space to accommodate the staff and functional requirements of the Kihei police district. There are currently approximately 33 police personnel assigned to the district.

**D. CHAPTER 343, HAWAII REVISED STATUTES REQUIREMENT**

The proposed development will be funded by the County of Maui on lands owned by the County of Maui. The use of County lands and funds is a trigger for an environmental impact analysis pursuant to Chapter 343, Hawaii Revised Statutes (HRS). In particular, based on the anticipated scope of work, the proposed action requires the preparation and processing of an Environmental Assessment.

**E. IMPLEMENTATION TIME FRAME**

The development of the Kihei Police Station will commence upon receipt of regulatory and construction permits and approvals. It is estimated that site construction will be completed in December 2010. The estimated cost of construction for the new Kihei Police Station is \$40 million.

**II. DESCRIPTION OF  
EXISTING CONDITIONS,  
POTENTIAL IMPACTS,  
AND PROPOSED  
MITIGATION MEASURES**

## II. DESCRIPTION OF EXISTING CONDITIONS, POTENTIAL IMPACTS, AND PROPOSED MITIGATION MEASURES

### A. PHYSICAL ENVIRONMENT

#### 1. Surrounding Land Uses

##### a. Existing Conditions

The project area is located southeast of the heart of Kihei town, which contains a variety of residential, business/commercial, civic, and recreational land uses. The project site is bordered by agricultural pasture lands to the north, east, and south, and Pi'ilani Highway and residential uses to the west. A Monsanto facility and the County Kihei Wastewater Reclamation Facility are also located north of the project area. The subject property is located within two (2) miles of commercial, recreational, and civic facilities.

The coastal area of Kihei includes resort-oriented condominiums in proximity to South Kihei Road, as well as commercial centers, such as Azeka Shopping Center, Pi'ilani Village Shopping Center, and Kihei Kalama Village. Approximately 0.25 mile to the southwest of the project site is Kamali'i Elementary School. The County of Maui's Kihei Community Center and Aquatic Center are located along Lipoa Street, across from Kihei Elementary School. Kalama Park, Kalepolepo Park, and Kamaole Beach Parks I, II, and III are among the other recreational facilities found in the Kihei area, west of the project site.

##### b. Potential Impacts and Proposed Mitigation Measures

The proposed action is intended to provide upgrades to police facilities to ensure optimal effectiveness in meeting the mission of the Police Department. The property is designated for public use and is located adjacent to existing urban areas. Given these characteristics and the site's

ready access to supporting infrastructure systems, the proposed project is not anticipated to have an adverse impact on surrounding land uses.

## 2. Climate

### a. Existing Conditions

Maui is characterized by a semi-tropical climate containing a multitude of individual microclimates. The mean annual temperature of the island at all locations near sea level is approximately 75 degrees Fahrenheit. A high proportion of the rainfall that Maui receives each year falls on the northeast facing shores leaving the south and southwest coastal areas relatively dry. The project site is located within one of these drier areas of the southwest coast.

The Kihei coast is generally sunny, warm, and dry throughout the entire year. Annual temperatures in the region average in the mid to high 70's (Maui County Data Book, December 2007). June through August are historically the warmer months of the year, while the cooler months are January through March. During the summer months, average daily temperatures in Kihei typically range from the low 70's to the high 80's.

Average rainfall distribution in the Kihei-Makena region varies from under 10 inches per year along the coastline to more than 20 inches per year in the higher elevations. Rainfall in the Kihei-Makena region is highly seasonal, with most of the precipitation occurring in the winter months (Maui County Data Book, December 2007).

Northeast tradewinds prevail approximately 80 to 85 percent of the time. Tradewinds originating from the northeast average 10 to 15 miles per hour during afternoons, with slightly lighter winds during mornings and nights. Between October and April, the southerly winds of Kona storms may be experienced (Maui County Data Book, December 2007).

### b. Potential Impacts and Proposed Mitigation Measures

The proposed action is not anticipated to alter local micro-climates.

### 3. **Topography and Soils**

#### a. **Existing Conditions**

The project site is undeveloped and is characterized by moderate hills up to 20 percent slope, in which ground cover is sparse. Elevations range from approximately 130 feet to 180 feet above mean sea level. The project site generally slopes in a northwesterly direction toward the ocean (Mitsunaga & Associates, 2008).

Underlying the project site are soils belonging to the Keawakapu-Makena association. See **Figure 9**. The Soil Survey of the Islands of Kaua`i, O`ahu, Maui, Moloka`i, and Lana`i, State of Hawaii`i characterizes the soils of the Keawakapu-Makena association as consisting of well-drained, medium-textured soils on the low uplands of East Maui. These soils are gently sloping to moderately steep, which developed in material weathered from volcanic ash. The association makes up about two (2) percent of the island.

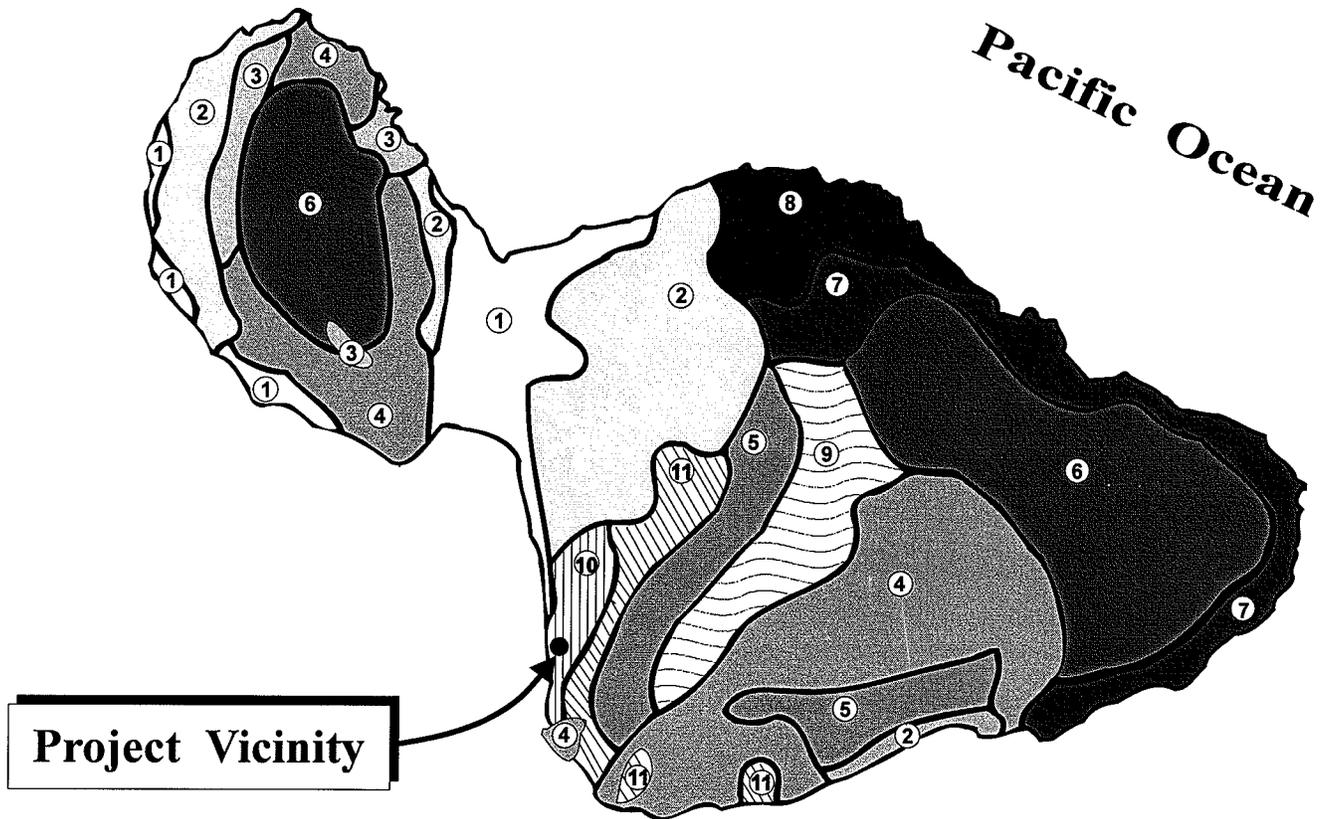
According to the above-mentioned soil survey, the specific soil type underlying the project site is primarily Waiakoa Extremely Stony Silty Clay Loam (WID2). See **Figure 10**. Waiakoa Extremely Stony Silty Clay Loam (WID2) erodes and has stones covering 3 to 15 percent of the surface. In most areas, about 50 percent of the surface layer has been removed by erosion. Runoff is medium, and the erosion hazard is severe. In this area of Kihei, including the project site, there are numerous outcrops of blue rock, which also comprise much of the underlying soil composition.

#### b. **Potential Impacts and Proposed Mitigation Measures**

A Foundation Investigation report for the site of the proposed police station was completed on November 12, 2008. The report presented results of the foundation investigation which included fieldwork, laboratory testing, and geotechnical recommendations for the design of foundations, seismic considerations, slabs-on-grade, and resistance to lateral pressures, retaining walls, flexible pavement, and site grading. See **Appendix "B"**.

# LEGEND

- |   |  |  |                                   |
|---|--|--|-----------------------------------|
|  | Pulehu-Ewa-Jaucas association                |  | Hana-Makaalae-Kailua association  |
|  | Waiakoa-Keahua-Molokai association           |  | Pauwela-Haiku association         |
|  | Honolua-Olelo association                    |  | Laumaia-Kaipoi-Olinda association |
|  | Rock land-Rough mountainous land association |  | Keawakapu-Makena association      |
|  | Puu Pa-Kula-Pane association                 |  | Kamaole-Oanapuka association      |
|  | Hydrandepts-Tropaquods association           |  |                                   |



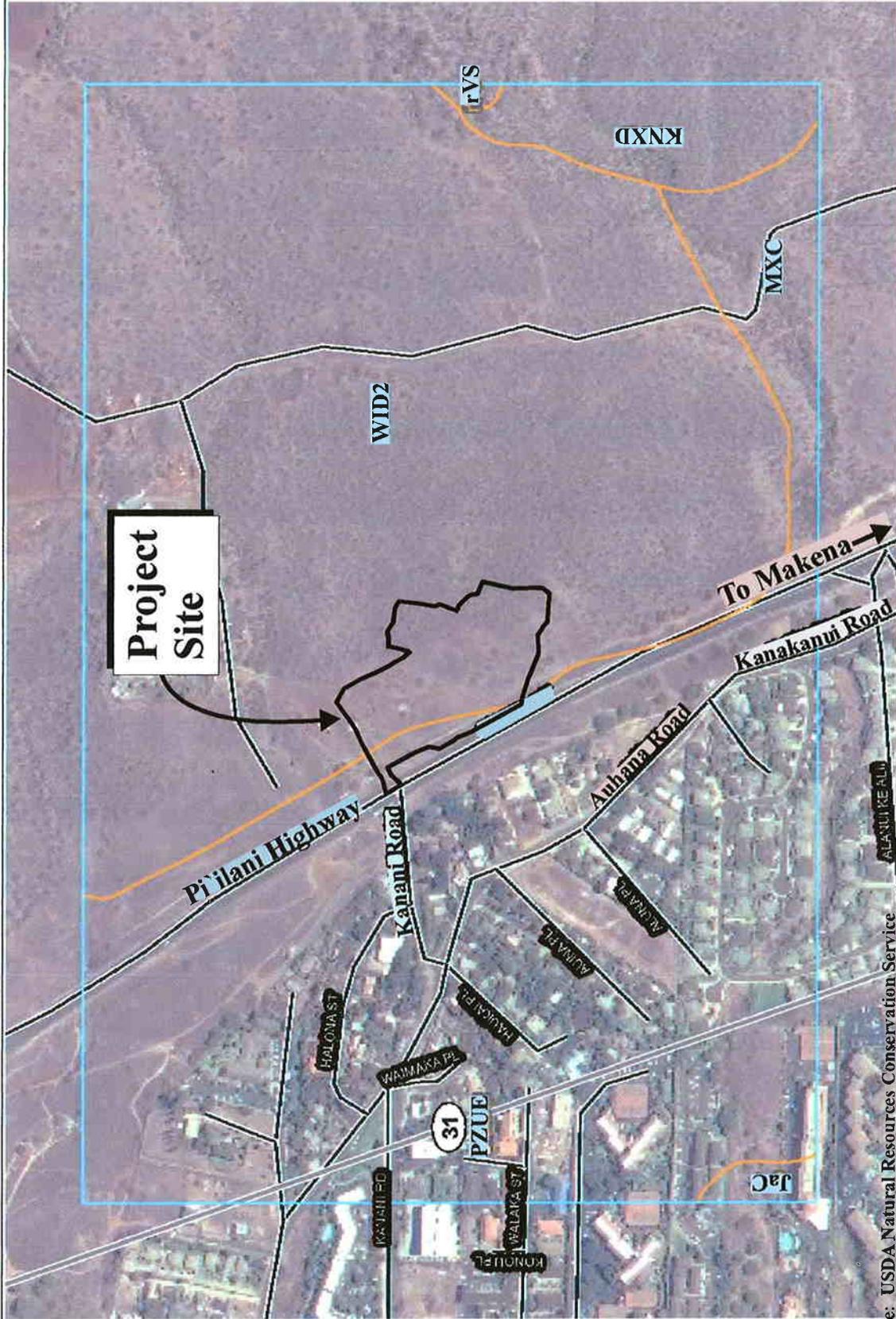
Source: USDA, Soil Conservation Service

**Figure 9** Proposed Kihei Police Station  
Soil Association Map

NOT TO SCALE



Prepared for: County of Maui, Police Department



Source: USDA Natural Resources Conservation Service

Figure 10

Proposed Kihei Police Station  
Soil Classification Map

NOT TO SCALE



Prepared for: County of Maui, Office of the Mayor

The Foundation Investigation report indicated that the site can be generally developed as planned. Conventional shallow foundations may be used to support the proposed structure.

Footings excavations for the majority of the police station building and parking lot retaining wall will expose the highly weathered basalt. It is recommended that conventional shallow foundations bearing directly on the dense to medium hard, highly weathered basalt may be used to support the retaining wall and police station building. About two (2) to three (3) feet of fill placement is expected in the northwestern portion of the police station building. Footings located in this area should extend through the new fill and be founded directly on the highly weathered basalt.

The proposed police station is compatible with the property's underlying soil characteristics. To minimize runoff and erosion associated with WID2 soil, several Best Management Practices (BMPs) will be implemented. These include the following: constructing of detention basins to capture sedimentation to minimize the quantity of sediment leaving the site, protecting of natural vegetation, using wind erosion control, intercepting runoff above disturbed slopes, and using seeding and fertilizing or other soil erosion control. There are no geologic or soil hazard limitations associated with the subject property.

#### **4. Agriculture**

##### **a. Existing Conditions**

In 1977, the State Department of Agriculture developed a classification system to identify Agricultural Lands of Importance to the State of Hawai'i (ALISH). The classification system is based primarily, though not exclusively, upon the soil characteristics of the lands. The three (3) classes of ALISH lands are: "Prime", "Unique", and "Other Important" agricultural land, with all remaining lands termed "Unclassified".

When utilized with modern farming methods, "Prime" agricultural lands have a soil quality, growing season, and moisture supply necessary to produce sustained crop yields economically. "Unique" agricultural lands possess a combination of soil quality, growing season, and moisture supply

to produce sustained high yields of a specific crop. "Other Important" agricultural lands include those that have not been rated as "Prime" or "Unique", but are of state-wide or local importance for agricultural use. As reflected by the ALISH map for the project region, the project site has been designated as "Unclassified" and is located in an area designated for urban use. See **Figure 11**.

The University of Hawai'i, Land Study Bureau (LSB) developed the Overall Productivity Rating, which classified soils according to five (5) levels, with "A" representing the class of highest productivity soils and "E" representing the lowest. These letters are followed by numbers which further classify the soil types by conveying such information as texture, drainage, and stoniness.

The project site is located on lands designated "E77". These lands have the lowest productivity rating by the LSB. Machine tillability is well-suited. The soil is coarse textured and very well-drained with nonstony lands.

**b. Potential Impacts and Proposed Mitigation Measures**

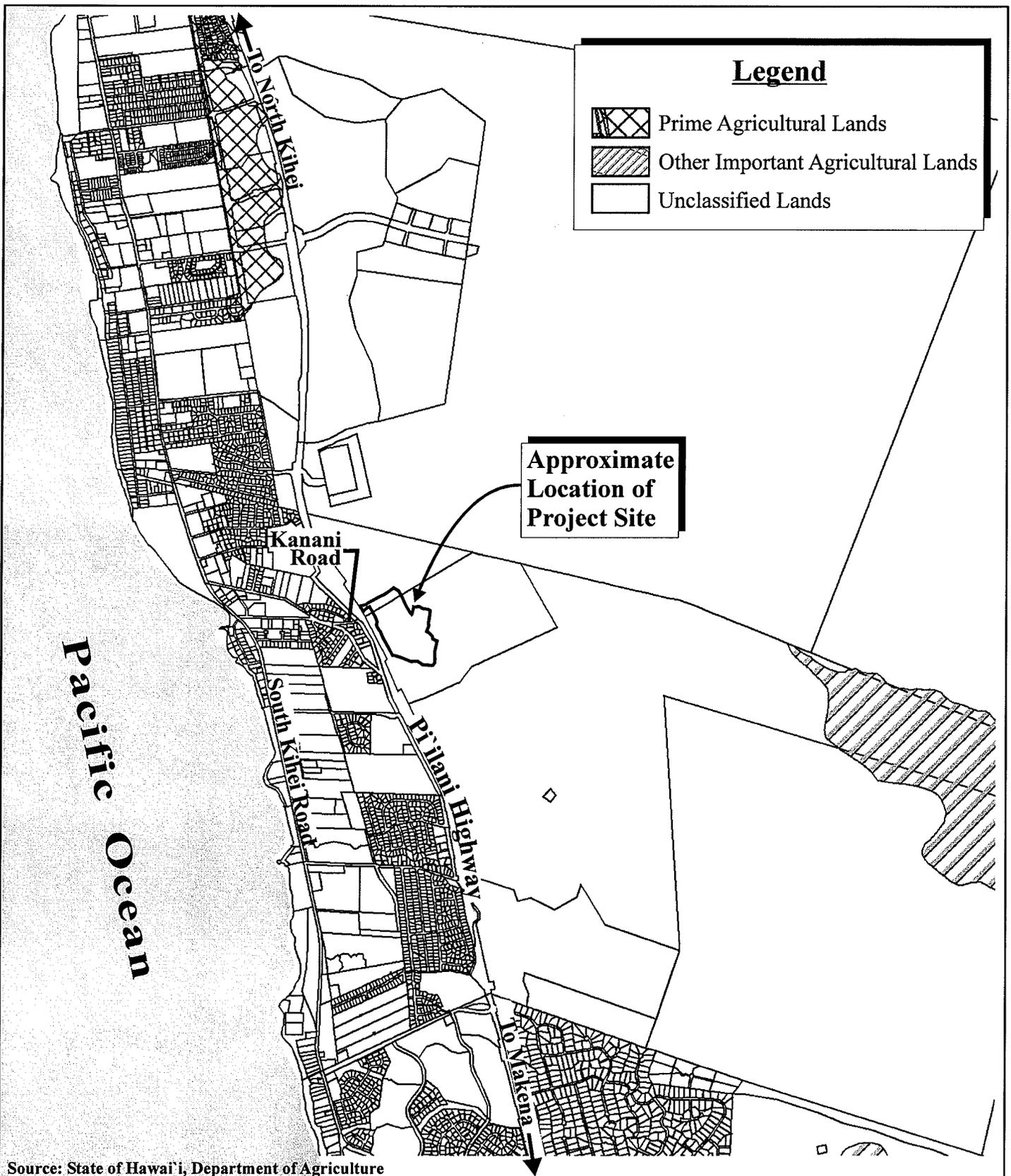
The project site is currently vacant and undeveloped agricultural land that was previously used for cattle grazing. The site was not used for cultivated crops, such as sugar cane, which were cultivated on lands in north Kihei and beyond. As a result, residual agricultural pesticides and fertilizers are not anticipated in the vicinity of the project site.

In light of the County's ownership of the subject property and the public purpose intent for its use, there are no current or planned agricultural activities on the property. In the context of the property's designation for public purposes, and its neighboring urban environs, no adverse impacts to agriculture are anticipated as a result of the proposed project.

**5. Flood and Tsunami Hazards**

**a. Existing Conditions**

As indicated by the Flood Insurance Rate Map (FIRM) for the area, the subject property is located in Zone C, which denotes an area of minimal



Source: State of Hawai'i, Department of Agriculture

Figure 11

Proposed Kihei Police Station  
 Agricultural Lands of Importance  
 to the State of Hawai'i

NOT TO SCALE



flooding and low flood risk. See **Figure 12**. Specifically, the Federal Emergency Management Agency (FEMA) describes areas in Flood Zone C as follows.

*Areas outside the 1% annual chance floodplain, areas of 1% annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1% annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.*

In addition, the project is situated in a location which is outside of the tsunami inundation area.

**b. Potential Impacts and Proposed Mitigation Measures**

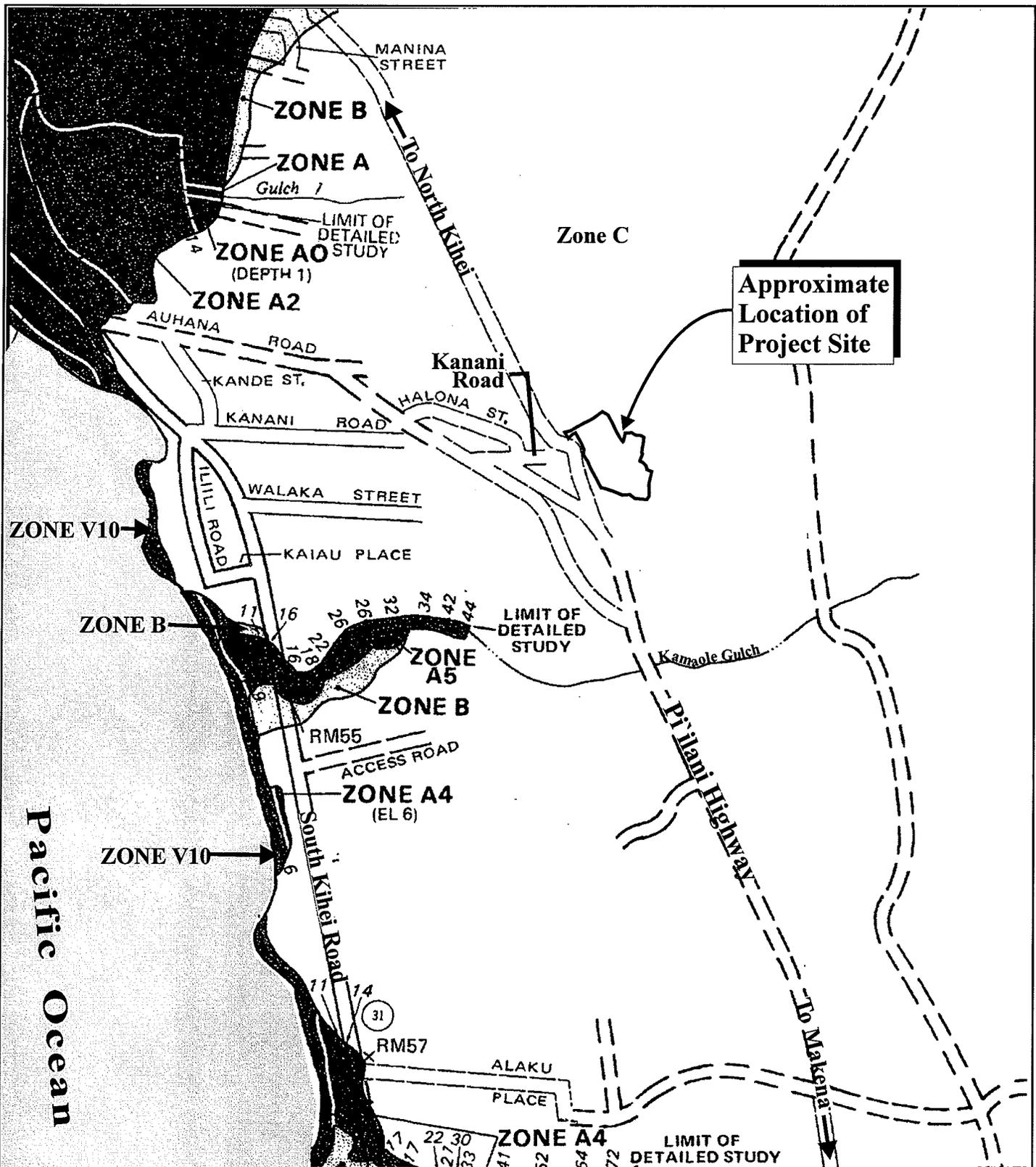
There are no restrictions on development with regards to the Flood Zone C designation. Moreover, because the project is located outside of the tsunami inundation area, there are no threats to the surrounding areas from coastal wave action. No adverse impacts with regards to flood and tsunami hazards are anticipated as a result of this project.

**6. Flora and Fauna**

**a. Existing Conditions**

Botanical and Fauna Surveys were prepared for the project by Robert W. Hobdy, environmental consultant, in June 2008. See **Appendix "C"**. The subject property is a dryland savannah consisting primarily of two (2) non-native species, buffelgrass and kiawe, which comprise more than 99 percent of the total vegetation. Refer to **Figure 3**. Additionally, no wetlands are present at the subject property. There are no known rare, endangered, or threatened species of flora at the project site.

Additionally, fauna and avifauna generally found in the project vicinity are non-native. Evidence of axis deer and domestic cattle was present at the subject property. In addition, there are various species of birds, including but not limited to, the common myna, dove, cardinal, finch, silverbill, and



Source: Flood Insurance Rate Map  
Community Panel Number 150003 0265 C

Figure 12

Proposed Kihei Police Station  
Flood Insurance Rate Map

NOT TO SCALE



francolin. There are no known rare, endangered, or threatened species of fauna or avifauna found at the project site.

b. **Potential Impacts and Proposed Mitigation Measures**

The United States Fish and Wildlife Services (USF&WS) noted potential impacts to seabirds during construction activities at the project site. To mitigate potential impacts, several Best Management Practices, as recommended by the USF&WS will be implemented during construction. Such practices to be implemented during construction include the shielding of street lights so that the bulb is not visible above bulb height, avoiding night-time construction, and providing construction staff with information regarding seabird fallout and provisions for handling a downed seabird during construction activities.

Additionally, a special effort was made to look for any occurrence of the Native Hawaiian Hoary Bat by making an evening survey on the property. While no evidence of such activity was observed, protection measures will be in place during construction at the project site during the pup-rearing season of April to August to avoid any potential impacts to the Hawaiian Hoary Bat.

The USF&WS also noted potential impacts to the endangered Hawaiian goose which may traverse onto the project site during construction activities. In the event that the Hawaiian goose is attracted to the project site, contact with the USF&WS will be made regarding actions to address potential impacts to the goose.

Although there was no evidence of native plant species found on the subject property, an effort will be made to utilize native vegetation in the landscaping plan, as recommended by the Office of Hawaiian Affairs and the USF&WS.

Given that the flora and fauna at the project site are generally limited to non-native, abundant species, the proposed project is not anticipated to have a negative impact on the biological resources in the region.

7. **Streams, Wetlands, and Reservoirs**

a. **Existing Conditions**

There are no streams, wetlands, or reservoirs in the vicinity of the project site. According to the U.S. Department of the Interior, Fish and Wildlife Service, National Wetlands Inventory Map, the nearest wetland feature is a palustrine wetland, which is located approximately 4,000 feet to the north of the project site.

b. **Potential Impacts and Proposed Mitigation Measures**

The project site is situated outside of the flood area attributable to the nearest wetland feature in the region. Moreover, in light of the limited scope of the project and its distance away from the closest wetland feature, the proposed project is not anticipated to have any impact on streams, wetlands, or reservoirs in the region.

8. **Archaeological and Historical Resources**

a. **Existing Conditions**

An archaeological inventory survey report was completed for the project site in August 2008 by Scientific Consultant Services, Inc. See **Appendix "D"**. The archaeological inventory survey comprised of a combination of fieldwork, laboratory work, and document review. The field work involved a full systematic pedestrian survey for the purpose of site inventory and limited subsurface testing to evaluate the significance of any subsurface deposits found. Laboratory work consisted of analysis of the subsurface layer and computer drafting of plan view map illustrations from the field. Document review involved a review of previous archaeological work conducted in the surrounding area.

During the field inspections, two (2) historic sites related to the former use of the property for cattle ranching and World War II military training were identified. These two (2) sites were then further examined according to the accepted State and Federal significance evaluations. It is noted that no burial features or human remains were identified during the pedestrian surveys or subsurface testing at the site.

The first historic site noted, identified as SIHP 50-50-10-6521 and located on the southwestern portion of the project site, contained remnants of historic military training activities. Three (3) features were found at Site 6521 consisting of a C-shape enclosure, a V-shape wall/enclosure, and an L-shape wall. These features are representative of surface features related to post-Contact, Historic-era activities. Subsurface testing did not reveal any cultural or historic materials.

The second historic site noted, identified as SIHP 50-50-10-6522 and located on the northeastern portion of the project site, contained remnants of cattle ranching activities. Three (3) features were found at Site 6522 consisting of a rock wall and two (2) concrete poured slabs. These features relate temporally to the transition between the historic to modern period in Hawai'i (mid 20<sup>th</sup> century). The site was not tested for subsurface deposits as no features warranted subsurface testing.

**b. Potential Impacts and Proposed Mitigation Measures**

As noted previously, two (2) sites representative of past military training and cattle ranching activities were documented during the archaeological inventory survey for the project site. The sites were reviewed in accordance with accepted evaluative protocols. The following significance evaluations are broad criteria established for the State and National Register of Historic Places. These criteria area as follows:

**Criterion A:** Sites that are associated with events that have made a significant contribution to the broad patterns of our history.

**Criterion B:** Sites that are associated with the lives of persons significant to our past.

**Criterion C:** Sites that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value or that represent a significant and distinguishable entity, whose components may lack individual construction.

**Criterion D:** Sites which have yielded, or may be likely to yield, information important to prehistory or history.

**Criterion E:** Sites which have an important value to the native Hawaiian people or to another ethnic group of the State due to associations with traditional cultural practices once carried-out, or still carried-out, at the property or due to associations with traditional beliefs, events, or oral accounts – these associations being important to the groups’ history and cultural identity (State of Hawai`i criterion only).

Both of the historic sites identified during the archaeological inventory survey are considered significant under Criterion D, due to their potential to yield information important for understanding the history of the region. Information for these sites has been recorded as part of the inventory survey investigation through location documentation, written descriptions, photographs, and plan view maps to scale. Based on these findings, the report concluded that “*no further mitigation is recommended*”, given that the two (2) sites’ significance has been recorded.

The archaeological inventory survey report was submitted to the State Historic Preservation Division (SHPD) for review. The SHPD concurred with the report’s findings and recommendations and accepted the report in a letter dated October 13, 2008. See **Appendix "D-1"**. The SHPD noted, “*no further archaeological work, such as data recovery, or mitigation such as precautionary monitoring, is warranted*”.

Lastly, in accordance with Section 6E-43.6, Hawai`i Revised Statutes and Chapter 13-300, Hawai`i Administrative Rules, if any significant cultural deposits or human skeletal remains are encountered, work will stop in the immediate vicinity and the SHPD and the Office of Hawaiian Affairs (OHA) will be contacted.

## 9. **Cultural Resources**

### a. **Existing Conditions**

The Kihei area is one which transitioned from a historically agrarian and marine economy to a sugar cane plantation to tourism in the present day. In a cultural context, there were several fishponds in the area, most notably Waiohuli, Keokea-kai, and Kalepolepo. These ponds were some of the

most important royal fishponds on Maui and were reportedly rebuilt at least three times over the centuries.

In addition, there were many trails in the area which extended from the coast to the mountains, which linked those regions for both economic and social reasons. For example, the Kalepolepo Trail began at the Kalepolepo fishpond and continued to the upland region of Waiohuli. Another significant trail, the King's Trail, extended along the coast from Lahaina in West Maui to Makena in South Maui.

As early as 1828, sugar cane was introduced to Maui, and by 1899, the Kihei Plantation Company was growing sugar cane in the plains above Kihei. The Kihei Plantation Company was later absorbed by the Hawaiian Commercial & Sugar Company (HC&S) in 1908. HC&S continued to cultivate in sugar what had been the Kihei Plantation Company fields into the 1960s.

More recently, a dependable water supply was brought to the area, which spurred the development of overseas investment in residential housing and vacation properties. Since that time, tourism has increased, and as a consequence, the South Maui area has recently been touted as one of the fastest growing regions in the state.

**b. Potential Impacts and Proposed Mitigation Measures**

A Cultural Impact Assessment was prepared by Scientific Consultant Services, Inc. in June 2008 to evaluate the probability of impacts on identified cultural resources including values, beliefs, objects, records, properties, and stories occurring within the project area. See **Appendix "E"**. The archival historic and cultural source research performed did not reveal any cultural practices existent either in the past or presently onsite and did not indicate adverse cultural impacts arising from the proposed action.

Additionally, the cultural consultant sought consultation via letter request from the Maui Office of Hawaiian Affairs, Community Resource Coordinator, Maui; the Office of Hawaiian Affairs, O'ahu; the Maui Planning Department Cultural Resources Commission; the Central Maui

Hawaiian Civic Club; the State Historic Preservation Division Cultural Historian; the Kihei Community Association; the Native Hawaiian Preservation Council; and 'Ao 'ao O Na Loko I'a O Maui. Kimokeo Kapahulehua of 'Ao 'ao O Na Loko I'a O Maui responded that he knew of no cultural activities within or near the project area and that the area was previously graded. Based on the inquiries and responses, it is reasonable to conclude that the exercise of Native Hawaiian rights, or any ethnic group relating to cultural practices, will not be affected by the proposed action at the project site.

Based on the foregoing, the proposed project is not anticipated to generate any significant negative impacts on the cultural resources of the region.

**10. Air and Noise Quality**

**a. Existing Conditions**

The air quality of the Kihei area is considered good with existing airborne pollutants attributed primarily to automobile exhaust from the region's roadways. There are no point sources of airborne emissions in the immediate vicinity of the project site. Other sources of airborne emissions may include construction activities around Kihei and smoke produced from sugar cane burning which takes place in the Central Maui isthmus. These sources are intermittent, however, and prevailing trade winds quickly disperse any particulates which are generated.

There are no significant noise generators in the vicinity of the project site. The predominant background noise source in the area is attributed to vehicle traffic along Pi'ilani Highway and other roadways.

**b. Potential Impacts and Proposed Mitigation Measures**

Air quality impacts attributed to the project will include dust generated by short-term construction-related activities. Site work such as clearing, grubbing and grading, and roadwork and construction will generate airborne particulates. Dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind-blown emissions.

Graded and grubbed areas will be vegetated to mitigate dust-generated impacts. In the long term, the proposed project is not expected to adversely impact local and regional ambient air quality. Ambient noise conditions will be temporarily impacted by construction activities. Heavy construction equipment, such as bulldozers, front-end loaders, and material-transport vehicles, and localized blasting and removal of blue rock will likely be the dominant sources of noise during the construction period. In the long term, siren noise from police cars are anticipated to occur sporadically throughout the day.

## **11. Scenic and Open Space Resources**

### **a. Existing Conditions**

The slopes of Haleakala are visible from the project site, with the West Maui Mountains visible to the northwest. The project site is not located within a scenic view corridor, nor is it a part of a valuable open space resource area.

### **b. Potential Impacts and Proposed Mitigation Measures**

The subject property is not considered a valuable scenic corridor. The proposed building height in combination with the topography of the site and its view relationship with Haleakala from the intersection of Pi'ilani Highway and Kanani Road was assessed.

Mitigating measures to be implemented to ensure the preservation of views from Pi'ilani Highway and Kanani Road include the provision of an approximately 20-foot building setback from the property line. While the proposed building height is approximately 44 feet, the building will be positioned in a northwest-southeast direction to minimize view impacts mauka of the highway. With these parameters, a photographic analysis has been prepared to graphically represent the grade and building height relationship from Pi'ilani Highway. See **Figure 13**. Based on this analysis, there are no view plane interference issues anticipated with the proposed action.



**Southeast View of Project Site Along Pi'ilani Highway**



**View Southeast of Project Site from Intersection of Pi'ilani Highway and Kanani Road**

Source: Mitsunaga & Associates, Inc.

**Figure 13 Proposed Kihei Police Station  
Photographic Analysis**

**NOT TO SCALE**

Landscaping will be installed as part of the development improvements to ensure visual buffering and softening of the built landscape. Adverse impacts to scenic or open space resources resulting from the project are not anticipated. The project site is not visible from offsite shoreline locations in Kihei.

## **B. SOCIO-ECONOMIC ENVIRONMENT**

### **1. Regional Setting**

#### **a. Existing Conditions**

From a regional standpoint, the project site is located within the Kihei-Makena Community Plan region, which stretches from Ma`alaea in the north down to La Perouse Bay in the south. The region contains a diverse range of physical and socio-economic environments. With its dry and mild climate and proximity to recreation-oriented shoreline resources, the visitor-based economy has grown steadily over the years. The town of Kihei serves as the commercial and residential center of the region with the master-planned communities of Wailea and Makena serving as the focal points for the majority of visitor activities. A number of internationally recognized luxury hotels and golf courses are located along the coastline at Wailea and Makena.

#### **b. Potential Impacts and Proposed Mitigation Measures**

The proposed project is considered compatible with adjacent land uses. The regional character of the Kihei area will not be adversely impacted by the development of a district police station.

### **2. Population and Demography**

#### **a. Existing Conditions**

The population of the County of Maui has exhibited relatively strong growth over the past decade. The resident population for the County of Maui in 2005 was estimated to be 140,050 and is projected to increase to approximately 151,300 in 2010 (SMS, June 2006).

The subject property is located along the southwestern coast of Maui, within the Kihei-Makena Community Plan region. Just as the County's population has grown, the resident population of the Kihei-Makena region has also increased. The estimated population of Kihei in 2000 was 22,870 (SMS, June 2006), which comprised 19.4 percent of the island's population. A projection of the resident population for this region in 2010 is estimated to be 28,114 (SMS, June 2006).

**b. Potential Impacts and Proposed Mitigation Measures**

The Kihei area currently contains a mix of housing types, both multi- and single-family, as well as commercial areas. The proposed Kihei Police Station is consistent with the department's goal of providing superior police protection services for the population of the region. No significant impacts to population and demography are anticipated.

**3. Economy and Labor Force**

**a. Existing Conditions**

The economy of Maui is heavily dependent upon the visitor industry. The dependency on the visitor industry is especially evident in the Kihei-Makena region, which is one of the State's major resort destination areas. The foundation for the region's visitor strength lies in the availability of vacation rentals, world-class resorts, and recreational facilities throughout Kihei, Wailea, and Makena. Service support for the visitor industry is also found in Kihei, where numerous retail commercial centers are located.

The State's overall economic situation continues to fluctuate. The State unemployment rate is 6.8 percent. Maui County is exhibiting similar trends with a seasonally unadjusted unemployment rate for the same period of 8.7 percent (State Department of Labor and Industrial Relations, June 2009).

**b. Potential Impacts and Proposed Mitigation Measures**

On a short-term basis, the project will support construction and construction-related employment. Accordingly, the project will have a beneficial impact on the local economy during the period of construction.

From a long-term perspective, the proposed Kihei Police Station is not anticipated to have a significant negative impact on the economy or labor force. The existing labor force of police personnel serving the Kihei district will be stationed at the new station.

**4. Housing**

**a. Existing Conditions**

The project site is located in Kihei, the commercial and residential center of South Maui. A range of housing types and conditions exists within these areas, from owner-occupied homes to luxury condominiums for part-time residents.

Over the past five (5) years, the demand for housing on Maui has intensified due to steady population growth, high employment, and historically low interest rates. This strong demand, coupled with limited supply, has led to rising housing prices. The Hawai'i Housing Policy Study Update 2003, estimated a deficit of approximately 3,755 needed resident housing units as of 2006. This deficit was projected to further increase to approximately 4,156 units by 2024. The long-term projection of housing conditions in South Maui indicates that the increase in households over the next five (5) years will outnumber the existing supply of new homes. A significant increase in housing supply will be needed to accommodate the region's anticipated growth.

**b. Potential Impacts and Proposed Mitigation Measures**

The project will provide a modern police facility in the near and long term, at an attractive and central location in Kihei. In light of the current and projected housing market conditions, the proposed Kihei Police Station will provide a significant community benefit by offering existing and potential residents a greater police presence and an improved delivery of service. No negative impacts on housing conditions are anticipated.

## C. PUBLIC SERVICES

### 1. Police and Fire Protection

#### a. Existing Conditions

The headquarters of the County of Maui Police Department (MPD) are located at its Wailuku Station. The department consists of several patrol, support, administrative, and investigative divisions that service the Hana, Lana`i, Lahaina, Moloka`i, and Wailuku regions.

The MPD's Kihei Patrol, which covers the Kihei-Makena region, currently operates from a substation located at the Kihei Town Center, about one (1) mile northwest of the project site. The proposed Kihei Police Station will replace the substation at the Kihei Town Center.

Fire prevention, protection, and suppression services are provided by the County of Maui, Department of Fire and Public Safety. The Kihei Fire Station, which services the Kihei-Makena region, is situated on South Kihei Road near Kalama Park, approximately one (1) mile northwest of the project site.

The Wailea Fire Station is located about two (2) miles to the south of the project site. The Wailea Station services the area from Kamaole Beach Park II to Makena and provides back-up support for the Kihei Station when required.

#### b. Potential Impacts and Proposed Mitigation Measures

The proposed project is intended to centralize police and protection services in the South Maui region. As previously noted, the Police Department needs a facility to accommodate its staff and functional requirements for the region. Consequently, the proposed project will have a positive impact on the welfare and safety of the community. Fire protection services are not anticipated to be impacted as a result of project implementation.

2. **Medical Facilities**

a. **Existing Conditions**

The only major medical facility on the island is Maui Memorial Medical Center, which is located in Wailuku about ten (10) miles from the project area. The 231-bed facility provides general, acute, and emergency care services.

Clinics and offices are situated throughout the Kihei and Wailea areas, however these offer medical services on a lesser scale. Such clinics include Kihei Clinic and Wailea Medical Services, Kihei Pediatric Clinic, Kihei Physicians, the Kihei-Wailea Medical Center, Maui Medical Group, and Kaiser Permanente.

b. **Potential Impacts and Proposed Mitigation Measures**

The proposed project is not anticipated to affect the service capabilities of emergency medical or general care operations. As noted above, medical services are available in the Kihei-Wailea region.

3. **Educational Facilities**

a. **Existing Conditions**

The State Department of Education (DOE) operates three (3) schools in the Kihei area. Kihei Elementary School and Kamali`i Elementary School each covers grades K to 5, and Lokelani Intermediate School covers grades 6 to 8. Maui High School, which covers grades 9 to 12 and is located in Kahului, is the designated public high school for Kihei residents. The approximate actual and projected enrollments, as well as the capacity of the area schools, are shown in **Table 2** below.

**Table 2. Actual and Projected Enrollments at Department of Education Schools**

School	Capacity	Actual Enrollment	Projected Enrollment	
	SY 06-07	SY 07-08	SY 11-12	SY 12-13
Maui High	1,526	1,732	1,662	1,665
Lokelani Intermediate	697	651	583	561
Kamali'i Elementary	797	650	611	603
Kihei Elementary	923	799	774	781
Source: Department of Education, 2007.				

In addition, the Kihei Charter School for grades K to 12 is also located in the region and anticipates an enrollment of 428 students in the 2008-2009 school year (Kihei Charter School website).

Maui Community College (MCC), which is located in Kahului, is a branch of the University of Hawai'i system. MCC is the primary higher education institution serving Maui.

**b. Potential Impacts and Proposed Mitigation Measures**

The proposed Kihei Police Station will not have an impact on existing educational facilities in the region.

**4. Recreational Facilities**

**a. Existing Conditions**

Diverse recreational opportunities are available in the Kihei-Makena Community Plan region. Shoreline activities, such as fishing, surfing, jogging, camping, picnicking, snorkeling, swimming, and windsurfing, are

by far the predominant forms of recreation in the area. Numerous public park facilities exist within a relatively short driving distance of the project site, including Waipu`ilani, Kalama, and Kama`ole I/II/III Beach Parks. Additionally, recreational resources available in Kihei, Wailea, and Makena include the Kihei Community Center and Aquatic Center, as well as resort-affiliated, world-class golf courses and tennis centers.

**b. Potential Impacts and Proposed Mitigation Measures**

While the proposed Kihei Police Station will not place additional demands on existing recreational resources, the proposed project will consume lands currently designated by the County of Maui for park use. However, due in part to the sloping, rocky terrain, the 150-acre park parcel has been cost-prohibitive to develop for recreational use.

**5. Solid Waste Disposal**

**a. Existing Conditions**

Single-family residential solid waste collection service is provided by the County of Maui. Residential solid waste collected by County crews is disposed of at the County's Central Maui Landfill facility, located 4.0 miles southeast of the Kahului Airport. In addition to County-collected refuse, the Central Maui Landfill also accepts commercial waste from private collection companies. A new expansion to the Central Maui solid-waste landfill facility is planned to ensure continuing service capacity for island residents and visitors.

Privately owned facilities, such as the Maui Demolition and Construction Landfill and the Pohakulepo Concrete Recycling Facility, accept solid waste and concrete from demolition and construction activities. These facilities are located at Ma`alaea, near Honoapi`ilani Highway's junctions with North Kihei Road and with Ku`ihelani Highway. A County supported green waste recycling facility is located at the Central Maui Landfill.

**b. Potential Impacts and Proposed Mitigation Measures**

The proposed Kihei Police Station will be served by the County of Maui's solid waste collection and disposal systems. The proposed project is not

anticipated to affect the service capabilities of residential or commercial waste collection operations. In the *Public Facilities Assessment Update, County of Maui (2007)*, R. M. Towill Corporation projected that the Central Maui Landfill would have adequate capacity to accommodate commercial and residential waste through the year 2025.

## **D. INFRASTRUCTURE**

### **1. Roadways**

#### **a. Existing Conditions**

Access to the Kihei region is provided via North Kihei Road from the West Maui and the Wailuku areas and via Mokulele Highway from the Kahului and the Upcountry areas. The following is a summary of major roadways in the vicinity of the project site.

#### **(1) Pi`ilani Highway**

Pi`ilani Highway is a four-lane, State arterial highway providing access between Kihei and Wailea and runs parallel to and mauka of South Kihei Road. Pi`ilani Highway is the main arterial road in the area. In addition to paved shoulders, Pi`ilani Highway has traffic signals and right- and left-turn lanes at major intersections. Pi`ilani Highway narrows to two (2) lanes near the Maui Meadows subdivision and ends at Wailea Ike Drive in the Wailea Resort.

#### **(2) Mokulele Highway**

Mokulele Highway connects Kihei and Kahului. Mokulele Highway is a four-lane State arterial highway which was recently widened and realigned. The Pu`unene Sugar Mill, the Maui Humane Society, the Army National Guard, and various industrial facilities are located along Mokulele Highway.

#### **(3) North Kihei Road**

This two-lane, undivided State roadway runs along the coastline and adjacent to the Kealia Pond National Wildlife

Refuge. Near the southern end of this roadway, there are a number of residential complexes at Sugar Beach. In the north, North Kihei Road intersects Honoapi`ilani Highway at Ma`alaea. North Kihei Road is used primarily by vehicles traveling between West Maui, Central Maui, and Kihei.

(4) **South Kihei Road**

This two-lane, undivided County collector roadway runs in a north-south direction along the Kihei coastline from its intersection with North Kihei Road to Okolani Drive in Wailea. At its northern terminus, South Kihei Road turns into North Kihei Road, which continues north to Ma`alaea. South Kihei Road provides local access to residences, visitor accommodations, shopping areas, and parks along the Kihei coastline.

(5) **Kanani Road**

Kanani Road is a two-lane, undivided, east-west County collector roadway between South Kihei Road and Pi`ilani Highway. Kanani Road provides access to a number of single-family subdivisions and will provide access to the proposed police station. There exists a traffic signal controlled intersection where Kanani Road and Pi`ilani Highway intersect.

**b. Potential Impacts and Proposed Mitigation Measures**

A Traffic Impact Report (TIR) was completed for the project by Wilson Okamoto Corporation in December 2008. See **Appendix "F"**. Existing roadway traffic conditions were analyzed based on current land use, population, the existing roadway network, and vehicular traffic counts. Growth factors were then applied to account for increases in population and other proposed developments anticipated within the region.

The TIR assumed 2010 as the completion date for the proposed Kihei Police Station. Traffic projections were first undertaken for the Base Year without the project, but including regional traffic growth (2.3 percent growth per year) and other known developments in the region. The TIR also describes planned roadway improvements within the region.

Based on the analysis, traffic operations under Year 2010 without project conditions are expected to remain similar to existing (2008) conditions during both the morning and afternoon peak hours of traffic. Likewise, traffic operations with the proposed Kihei Police Station are expected to remain similar to existing (2008) and Year 2010 without project conditions despite the addition of site-generated vehicles to the surrounding roadway network.

Nonetheless, the TIR noted that, based on the analysis of the traffic data, the following recommendations are warranted as part of project implementation:

- Maintain sufficient sight distance for motorists to safely enter and exit all project driveways/roadways.
- Provide adequate onsite loading and off-loading service areas and prohibit off-site loading operations.
- Provide adequate turn-around area for service, delivery, and refuse collection vehicles to maneuver on the project site to avoid vehicle-reversing maneuvers onto public roadways.
- Provide sufficient turning radii at all project driveways/roadways to avoid or minimize vehicle encroachments to oncoming traffic lanes.
- Align the access road for the new Kihei Police Station with Kanani Road to minimize turning conflicts for entering and exiting vehicles.

The TIR concluded that total traffic volumes entering the intersections along Pi'ilani Highway are expected to increase by less than one (1) percent during both the morning and afternoon peak periods with the proposed project. These increases in the total traffic volumes are in the range of daily volume fluctuations along the roadway and represent a minimal increase in the overall traffic volumes. As such, the proposed Kihei Police Station is not anticipated to have a significant impact on traffic operations in the project vicinity.

2. **Water System**

a. **Existing Conditions**

The Kihei area is served by the Department of Water Supply (DWS) of the County of Maui. Water service in the vicinity of the project site is from a reservoir located at the 311.5 foot elevation and a network of 12-inch to 6-inch pipelines. A 30-inch high pressure line, which is a designated DWS transmission pipeline, is located west (makai) of the project site.

b. **Potential Impacts and Proposed Mitigation Measures**

A Civil Design Criteria assessment was prepared by Mitsunaga & Associates, Inc. in August 2008. See **Appendix "G"**. The assessment noted that the DWS will accept connection to the existing 8-inch waterline along Kananui Road for potable water service if the residual pressure in the line is adequate for the intended purpose. The applicant is also exploring other water supply options, including joint water source and/or storage development, should connection to the DWS system prove unfeasible.

To reduce potable drinking water consumption, the applicant will explore the availability of non-potable water sources in the region for landscape irrigation and other uses. This will be pursued further during the civil design phase of the project.

The applicant will examine opportunities for the potential use of R-1 Recycled water where appropriate and will consult with the Department of Environmental Management staff concerning the extension of the R-1 water line from the Kihei Wastewater Reclamation Facility to the Kihei Police Station site.

Plumbing fixtures for the Police Station will be installed in accordance with Maui County Code, Section 16.20A.680, which requires the utilization of low-flow fixtures and devices in an effort to conserve water.

It is noted that the police station's irrigation system and onsite fire hydrants will utilize non-potable water, but the building fire sprinkler system will

utilize potable water. If required, a fire pump will be installed onsite to provide the required flows and pressures to the fire sprinkler system. An existing 1.0 million gallon (MG) non-potable reservoir, which is serviced by the County of Maui, Wastewater Reclamation Division (WWRD) is located northeast of the project and will satisfy the project's non-potable water demand.

The estimated potable and non-potable water demands for the project are shown in **Table 3** and **Table 4** below.

**Table 3. Estimated Project Potable Water Demands**

Description	Flows
Average Daily Demand	1,500 gallons per day (gpd)
Maximum Day Demand	2,250 gpd (1.5 x average daily demand)
Peak Hour Demand	4,500 gpd (3.0 x average daily demand)
Fire Sprinkler Flow Demand	500 to 750 gallons per minute (gpm)

**Table 4. Estimated Project Non-Potable Water Demands**

Description	Flow
Onsite Fire Hydrant Flow	2,750 gpm to 3,000 gpm
Landscaping Average Daily Demand	15,000 gpd
Landscaping Maximum Demand	60 gpm

The applicant will continue discussions with the DWS and the WWRD regarding the provision of adequate water source and storage to serve the project to ensure that there are no significant impacts to the County water system resulting from project development.

3. **Wastewater System**

a. **Existing Conditions**

The Kihei region is currently serviced by a wastewater collection, treatment, and disposal system owned and operated by the WWRD. The system consists of a number of pump stations and force mains which convey wastewater through the County’s transmission lines. The Kihei Wastewater Reclamation Facility (KWRF) processes the wastewater for the South Maui area.

The KWRF is located mauka (east) of Pi`ilani Highway and approximately 0.6 mile north of the project site. The KWRF provides treatment for the South Maui region to produce recycled water at the R-1 level by State Department of Health standards. R-1 recycled water is the highest quality of recycled water. The capacity of the KWRF is approximately 8.0 million gallons per day (mgd) and the current dry weather flow into the plant is approximately 4.0 mgd. Therefore, the KWRF is currently operating at approximately 50 percent of its capacity.

b. **Potential Impacts and Proposed Mitigation Measures**

The proposed project will connect to an 8-inch line and manhole on Kanani Road, which is the project’s access roadway from Pi`ilani Highway. The 8-inch line connects to a 36-inch line at South Kihei Road. The 36-inch line flows to Kihei Wastewater Pump Station No. 6, which pumps the wastewater to the KWRF. The estimated wastewater demands for the project are shown in **Table 5** below.

**Table 5.** Estimated Project Wastewater Demands

<b>Description</b>	<b>Flow</b>
Average Flow	900 gpd
Maximum Flow	4,500 gpd (5 x average flow)
Dry Weather Design Average Flow	1,00 gpd
Dry Weather Design Maximum Flow	4,600 gpd
Wet Weather Design Peak Flow	17,100 gpd

In consultation with the WWRD, wastewater system capacity is currently available and, as a result, no significant impacts to the wastewater system are anticipated as a result of project implementation.

#### 4. Drainage System

##### a. Existing Conditions

Maui receives varying levels of rainfall in a given year depending on location. The average annual rainfall (1999-2005) of the Kihei area was 11.25 inches (Maui County Data Book, December 2006). The project site is undeveloped and characterized by moderate hills up to 20 percent slope. However, the project site is designated as within Flood Zone C, an area of minimal flooding.

Rainfall runoff generated from the site sheet flows toward the western (makai) portion of the property toward Pi'ilani Highway. Since the site is currently undeveloped, there are no onsite drainage structures, however, there is a concrete lined ditch along Pi'ilani Highway which collects storm water runoff along the mauka side of the highway. The estimated runoff flow, estimated using the Rational Method and a 50-year recurrence interval, is 9.64 cubic feet per second (cfs) (Civil Design Criteria, 2008).

##### b. Potential Impacts and Proposed Mitigation Measures

The Civil Design Criteria assessment noted that the estimated post-development runoff flow is 24.67 cfs. As a result, the increase in peak flow from the existing condition is estimated to be 15.03 cfs. Storm water runoff will be directed away from the Kihei Police Station building and the net increase in runoff due to the proposed development will be directed to a detention basin in the northern portion of the site. Refer to **Figure 4** and **Appendix "G"**. While a 750 cubic yard detention basin will be adequate to attenuate the increase in runoff flow, a 1,000 cubic yard detention basin will be constructed to provide additional margin of safety. The increased runoff will slowly percolate into the ground below. Additional runoff will be filtered before entering the detention basin.

In summary, despite the increase in impervious surface, such as building roofs, pavement, and concrete walkways, storm runoff to adjacent or downstream properties will not increase above pre-development levels. Further, onsite drainage and soil erosion control measures and conformance with “Rules for the Design of Storm Drainage Facilities in the County of Maui” will reduce the potential of sediments contained in the runoff from entering the ocean. With the implementation of the proposed drainage improvements, the proposed project is not anticipated to result in significant drainage impacts to adjacent or downstream properties.

## **E. CUMULATIVE AND SECONDARY IMPACTS**

Cumulative impacts are defined as the impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.

The proposed project is not part of a larger action, nor would it occur within the context of such actions. It is noted, however, that the County of Maui’s ongoing General Plan update process will involve the formulation of a Maui Island Plan which would delineate urban and rural growth boundaries. Other landowners in the vicinity may seek to have portions of their respective land holdings placed on the Maui Island Plan for purposes of defining future development potential in the Kihei region. The overall timeframe for the General Plan covers a planning horizon up to the year 2030.

In the General Plan context, future regional growth opportunity in surrounding lands in the Kihei region is envisioned. Specifically, owners of lands located mauka of Pi’ilani Highway may pursue the development of their lands for residential, commercial, and industrial development. The proposed Kihei Police Station project, at approximately ten (10) acres in size, is much smaller in comparison to the potential large acreages of lands situated mauka of Pi’ilani Highway poised for future urban growth. Based on the relatively small scale of the proposed project, coupled with the longer term planning implications for the Kihei-Makena Community Plan region, the proposed new police facility is viewed as a needed public facility improvement.

Secondary impacts are those which have the potential to occur later in time or farther in distance, but are still reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project. Secondary impacts from highway projects,

for example, can occur because they can induce development by removing one of the impediments to growth-transportation access. The provision of a new police station in Kihei will ensure the adequacy of police protection services over the long term.

The project is not anticipated to have a significant adverse impact on the physical environment. Necessary infrastructure systems and services can be reasonably provided to serve the project. Consequently, the proposed action is not anticipated to result in significant adverse secondary impacts.

# **III. RELATIONSHIP TO LAND USE PLANS, POLICIES, AND CONTROLS**

### III. RELATIONSHIP TO LAND USE PLANS, POLICIES, AND CONTROLS

#### A. STATE LAND USE DISTRICT

Chapter 205, Hawai'i Revised Statutes, relating to the Land Use Commission, establishes four (4) major land use districts in which all lands in the state are placed. These districts are designated as "Urban", "Rural", "Agricultural", and "Conservation". The project site is located within the "Agricultural" district. See **Figure 14**.

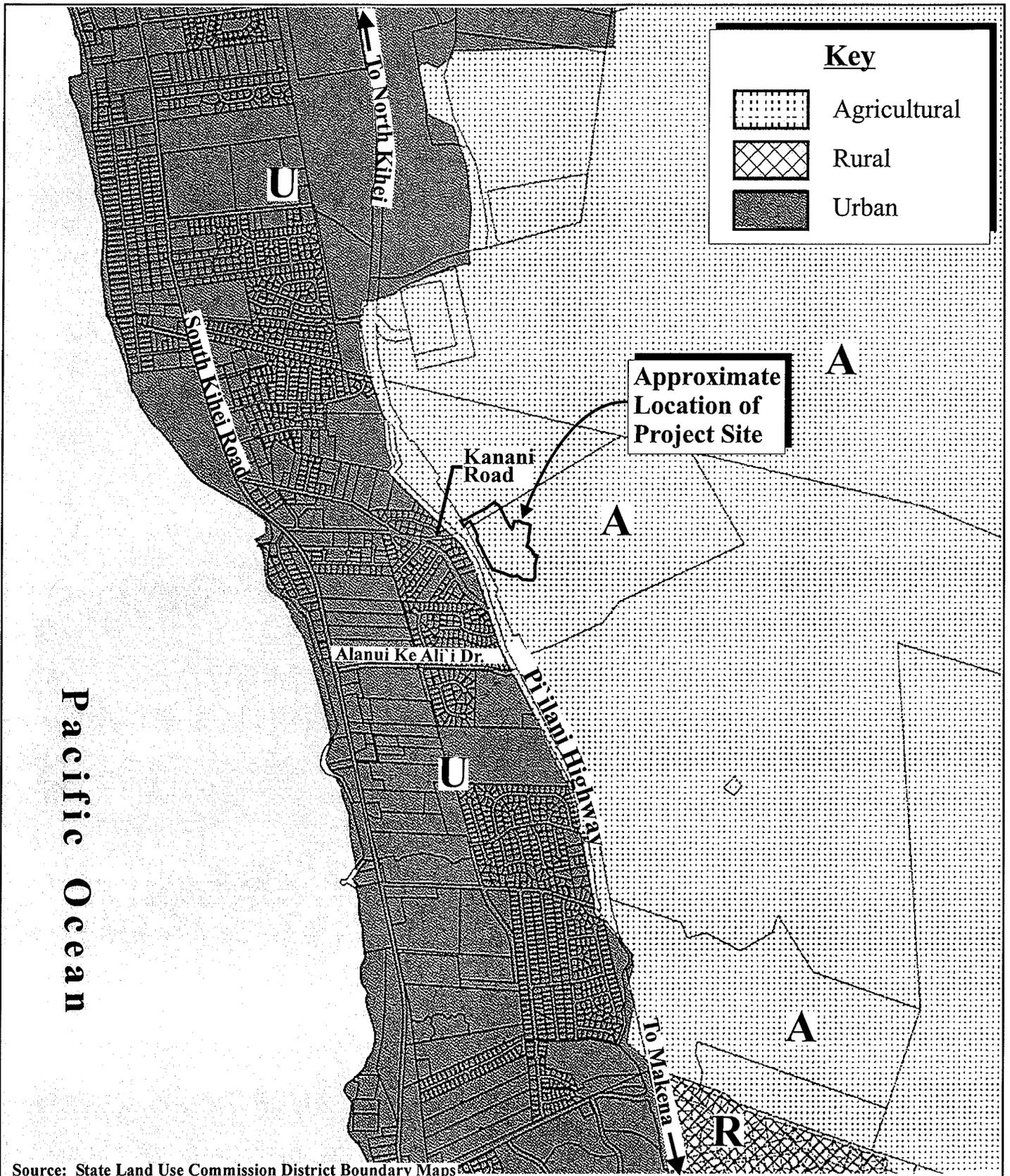
A State Land Use District Boundary Amendment (DBA) for the 10-acre project site for reclassification from the "Agricultural" district to the "Urban" district will be prepared as part of entitlement applications to enable implementation of the proposed Kihei Police Station project. Criteria considered in the reclassification of lands are set forth in the State Land Use Commission Rules (Chapter 15-15-18, Hawai'i Administrative Rules). The County of Maui Planning Department will initiate the DBA for the project.

The proposed reclassification of the approximately 10-acre project site from Agricultural to Urban has been analyzed with respect to the criteria, as discussed below.

- (1) *It shall include lands characterized by "city-like" concentrations of people, structures, streets, urban level of services, and other related land uses.*

**Comment:**

The area proposed for reclassification is adjacent to Pi'ilani Highway and the bordering existing residential subdivisions and Kamali'i Elementary School to the west, which are located on lands classified as "Urban." Infrastructure systems implemented in conjunction with the project are available within proximity to the project site. The proposed project will include city-like concentrations of people in a district police station designed to house the police staff and functional resources of the South Maui region.



Source: State Land Use Commission District Boundary Maps

**Figure 14** Proposed Kihei Police Station  
State Land Use District Boundary Map

NOT TO SCALE



(2) *It shall take into consideration the following specific factors:*

- a. **Proximity to centers of trading and employment except where the development would generate new centers of trading and employment.**

**Comment:**

The area proposed for reclassification is proximately located to existing commercial and employment centers in Kihei. Numerous employment opportunities exist in the retail, resort, and service industries in the Kihei/Wailea area while Wailuku and Kahului serve as the central business districts of the island. It is noted that the Maui Research and Technology Park is located approximately one (1) mile to the north of the subject property.

- b. **Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection.**

**Comment:**

Domestic water supply, wastewater service, and solid waste collection for the project will be coordinated with the County of Maui, Departments of Water Supply, Public Works, and Environmental Management, respectively. The area is located in close proximity to major roadways, such as Pi'ilani Highway, Mokulele Highway, and North Kihei Road. Three (3) State Department of Education (DOE) schools are located in the Kihei area in addition to a charter school. Health care facilities as well as fire protection services are available in Kihei. The proposed project will serve to augment police protection services in the region.

- c. **Sufficient reserve areas for foreseeable urban growth.**

**Comment:**

As noted previously, an expanded, consolidated district police station will be needed to accommodate the region's anticipated growth. The project will provide such a facility to provide police services in both the short and long term, which in turn is anticipated to result in a more proficient public service function. The proposed project involves the development of a district police station in proximity to an area

with significant foreseeable urban growth. Completion of the project is expected to address the absence of a permanent police station in South Maui.

- (3) *It shall include lands with satisfactory topography, drainage, and reasonably free from the danger of any flood, tsunami, unstable soil conditions, and other adverse environmental effects.*

**Comment:**

The project site ranges from approximately 130 feet to 180 feet in elevation and is suitable for the planned uses. The project site is situated within Zone C, which denotes areas of minimal flooding. The site is not situated within any tsunami inundation zone. Drainage improvements will be designed in consultation with applicable governmental agencies to mitigate potential runoff and adverse environmental impacts. No foreseeable adverse environmental effects are anticipated in conjunction with the project.

- (4) *Land contiguous with existing urban areas shall be given more consideration than non-contiguous land, and particularly when indicated for future urban use on state or county general plans.*

**Comment:**

The project site is contiguous with Urban district lands to the west. Additionally, the project site is located near the geographic center of the linearly developed South Maui area.

- (5) *It shall include lands in appropriate locations for new urban concentrations and shall give consideration to areas of urban growth as shown on the State and County plans.*

**Comment:**

The project site is designated "Agriculture" by the Kihei-Makena Community Plan. The project area is in the vicinity of residential land uses and Kamali'i Elementary School. The lands proposed for reclassification are, therefore, located within an area suitable for new urban growth as evidenced by the existing urban uses in the vicinity of the project area.

- (6) *It may include lands which do not conform to paragraphs (1) to (5):*

*When surrounded by or adjacent to existing urban development; and only when those lands represent a minor portion of this district.*

**Comment:**

The proposed project is in conformance with paragraphs (1) to (5) above; the project is also located adjacent to urban development, including the County Kihei Wastewater Treatment Facility nearby.

- (7) *It shall not include lands, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services.*

**Comment:**

Located across Pi`ilani Highway are areas of existing urban development. Existing Urban designated lands lie to the west and include various single-family subdivisions and Kamali`i Elementary School. The development of the project will not necessitate an unreasonable investment in public infrastructure or support systems. All requisite infrastructure systems for the project will be provided.

- (8) *It may include lands with a general slope of twenty percent (20%) or more if the commission finds that those lands are desirable and suitable for urban purposes and that the design and construction controls, as adopted by any Federal, State, or County agency, are adequate to protect the public health, welfare and safety, and the public's interest in the aesthetic quality of the landscape.*

**Comment:**

The project area has an average slope of approximately five (5) percent and is suitable for the planned uses. Governmental regulations will be followed to ensure the protection of public health, safety, and welfare.

## **B. HAWAII STATE PLAN**

Chapter 226, HRS, also known as the Hawai`i State Plan, is a long-range comprehensive plan which serves as a guide for the future long-term development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. Examples of State objectives and policies relevant to the proposed project are as follows:

1. **Section 226-05, Objective and policies for population. To achieve this objective, it shall be the State policy to:**
  - a. Manage population growth statewide in a manner that provides increased opportunities for Hawai`i's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.
  - b. Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.
  - c. Promote increased opportunities for Hawai`i's people to pursue their socio-economic aspirations throughout the islands.
  - d. Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.
  
2. **Section 226-14, Objective and policies for facility systems—in general. To achieve this objective, it shall be the policy of this State to:**
  - a. Accommodate the needs of Hawai`i's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.
  - b. Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.
  - c. Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.

3. **Section 226-26, Objectives and policies for socio-cultural advancement – public safety. To achieve these objectives, it shall be the policy of this State to:**
  - a. Ensure that public safety programs are effective and responsive to community needs.
  - b. Encourage increased community awareness and participation in public safety programs.
  - c. Support criminal justice programs aimed at preventing and curtailing criminal activities.
  - d. Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.
  - e. Provide a range of correctional resources which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community.
  
4. **Section 226-27 Objectives and policies for socio-cultural advancement--government. To achieve these objectives, it shall be the policy of this State to:**
  - a. Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.
  - b. Stimulate the responsibility in citizens to productively participate in government for a better Hawai`i.
  - c. Assure that government attitudes, actions, and services are sensitive to community needs and concerns.

The proposed Kihei Police Station is located in close proximity to existing public services and infrastructure. The project is in consonance with public safety objectives to implement effective and responsive police programs. In addition, the development of the police station will consolidate most of the district facility needs into a single centralized location. To this end, the proposed project is in conformance with the above-noted objectives and policies of the Hawai`i State Plan.

## C. MAUI COUNTY GENERAL PLAN

The Maui County General Plan (1990 Update) sets forth broad objectives and policies to help guide the long-range development of the County. As stated in the Maui County Charter, the General Plan shall:

*"...indicate desired population and physical development patterns for each island and region within the County; shall address the unique problems and needs of each island and region; shall explain the opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns, and characteristics of future developments. The General Plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development."*

The Maui County General Plan advances five (5) major themes that focus on the overall goals of the plan. The proposed project responds to the following General Plan themes:

### **Theme Number 2: Prepare a Directed and Managed Growth Plan**

Amendments to the General Plan will preserve a desired quality of life where areas of urban settlement must be managed and directed within a framework that consistently and concurrently balances growth demands against human service needs and physical infrastructure supply.

### **Theme Number 4: Maintain a viable economy that offers diverse employment opportunities for residents**

Amendments to the General Plan recognize the need to maintain a healthy economy and broaden our economic base so that we are not so dependent on tourism.

The proposed action is in keeping with the following General Plan objectives and policies:

### **POPULATION**

#### **Objective:**

To plan the growth of resident and visitor population through a directed and managed growth plan so as to avoid social, economic, and environmental disruptions.

**Policy:**

1. Balance population growth by achieving concurrency between the resident employee work force, the job inventory created by new industries, affordable resident/employee housing, constraints on the environment and its natural resources, public and private infrastructure, and essential social services such as schools, hospitals, etc.

**LAND USE**

**Objectives:**

1. To preserve for present and future generations existing geographic, cultural, and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the individual character of the various communities and regions of the County.
2. To use the land within the County for the social and economic benefit of all the County's residents.

**Policy:**

1. Provide and maintain a range of land use districts sufficient to meet the social, physical, environmental, and economic needs of the community.

**ECONOMIC ACTIVITY**

**Objective:**

To provide an economic climate which will encourage controlled expansion and diversification of the County's economic base.

**Policies:**

1. Maintain a diversified economic environment compatible with acceptable and consistent employment.
2. Support programs, services and institutions which provide economic diversification.

## **PUBLIC SAFETY**

### **Objective:**

To create an atmosphere which will convey a sense of security for all residents and visitors and aid in the protection of life and property.

### **Policies:**

1. Provide a wide range of social programs to help eliminate conditions that lead to crime and social disorder.
2. Make more efficient use of the police force by transferring some of its non-professional functions to civilian employees.
3. Maintain a proper state of preparedness for man-made or natural disasters.
4. Maintain efficiency of police and firefighters at the highest attainable level through in-service educational and training programs.
5. Publicize public safety and fire protection programs.
6. Locate fire, police and life saving stations in convenient areas.
7. Encourage residents and visitors to support law enforcement and to develop a spirit of mutual cooperation between the police and the public.
8. Improve personal and community safety programs.
9. Restore and encourage the sense of neighborhood and community caring throughout Maui County.

## **URBAN DESIGN**

### **Objective:**

To encourage developments which reflect the character and the culture of Maui County's people.

### **Policy:**

Encourage community design which establishes a cohesive identity.

The proposed Kihei Police Station project consists of a facility designed to accommodate the public safety needs of the growing South Maui communities. The project is sited in a

location which is in proximity to residential communities and will provide the police force a regional station able to satisfy the functional and staffing requirements of the district. Necessary infrastructure systems and services are available within a reasonable distance to serve the project. Consequently, the proposed project is in conformance with the above-noted objectives and policies of the Maui County General Plan.

The County of Maui is currently in the process of updating the Maui County General Plan. The project area is located within the Urban Growth Boundary of the initial draft of the Maui Island Plan.

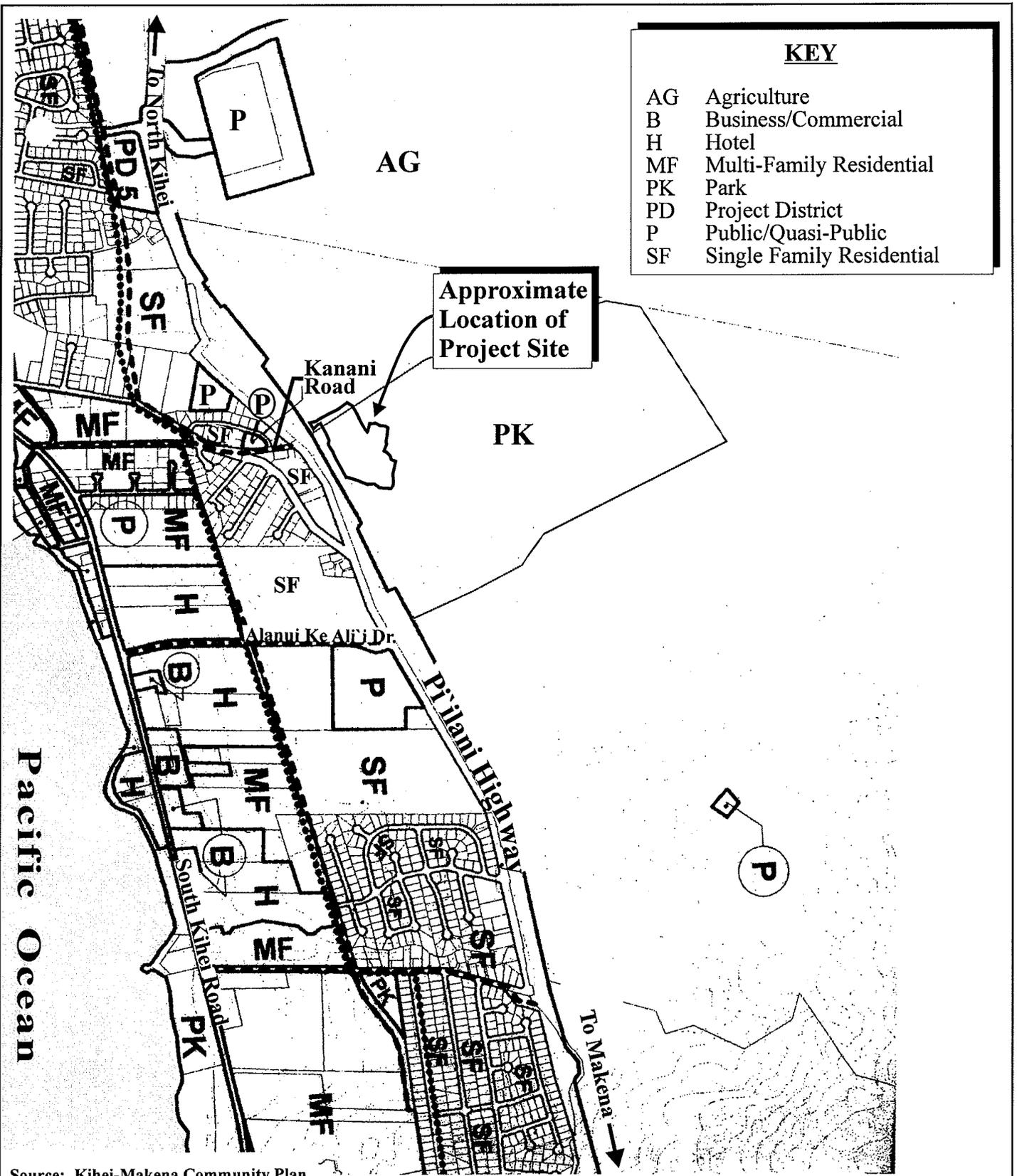
#### **D. COUNTY OF MAUI COMMUNITY PLANS**

Within Maui County, there are nine (9) community plan regions. From a General Plan implementation standpoint, each region is governed by a community plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas including infrastructure-related parameters.

- **Kihei-Makena Community Plan**

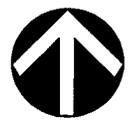
The proposed Kihei Police Station project is located within the Kihei-Makena Community Plan region. The existing land use designations for the project area under the Community Plan are set forth in the Kihei-Makena Community Plan Land Use Map. See **Figure 15**. The lands underlying the subject property are primarily designated as "Park" by the Kihei-Makena Community Plan. A small portion of the project site (Parcel 069) is designated "Agriculture".

The proposed project will involve a change to the Kihei-Makena Community Plan from "Park" to "Public/Quasi-Public". The "Agriculture" portion of the project site will contain only roadways/driveways and landscaping and will remain designated as "Agriculture". The proposed project is in conformance with the following, goals, objectives, and policies of the Kihei-Makena Community Plan:



Source: Kihei-Makena Community Plan

**Figure 15** Proposed Kihei Police Station  
 Kihei-Makena Community Plan NOT TO SCALE



Prepared for: County of Maui, Police Department



## **LAND USE**

### **Goal:**

A well-planned community with land use and development patterns designed to achieve the efficient and timely provision of infrastructural and community needs while preserving and enhancing the unique character of Ma`alaea, Kihei, Wailea and Makena as well as the region's natural environment, marine resources, and traditional shoreline uses.

### **Objectives and Policies:**

1. Identify priority growth areas to focus public and private efforts on the provision of infrastructure and amenities to serve existing residents and to accommodate new growth.
2. Establish a distribution of land uses which provides housing, jobs, shopping, open space, and recreation areas in close proximity to each other in order to enhance Kihei's neighborhoods and to minimize dependence on automobiles.

## **ECONOMIC ACTIVITY**

### **Goal:**

A diversified and stable economic base which serves resident and visitor needs while providing long-term resident employment.

### **Objectives and Policies:**

1. Establish a sustainable rate of economic development consistent with concurrent provision of needed transportation, utilities, and public facilities improvements.
2. Establish balance between visitor industry employment and non-visitor industry employment.

## **PHYSICAL AND SOCIAL INFRASTRUCTURE**

### **Goal:**

Provision of facility systems, public services, and capital improvement projects in an efficient, reliable, cost effective, and environmentally

sensitive manner which accommodates the needs of the Kihei-Makena community, and fully support present and planned land uses, especially in the case of project district implementation. Allow no development for which infrastructure may not be available concurrent with the development's impacts.

**Objectives and Policies:**

1. Improve and expand the delivery of health and public safety services to Kihei-Makena residents and visitors.
2. Provide a police station in the Kihei-Makena region.

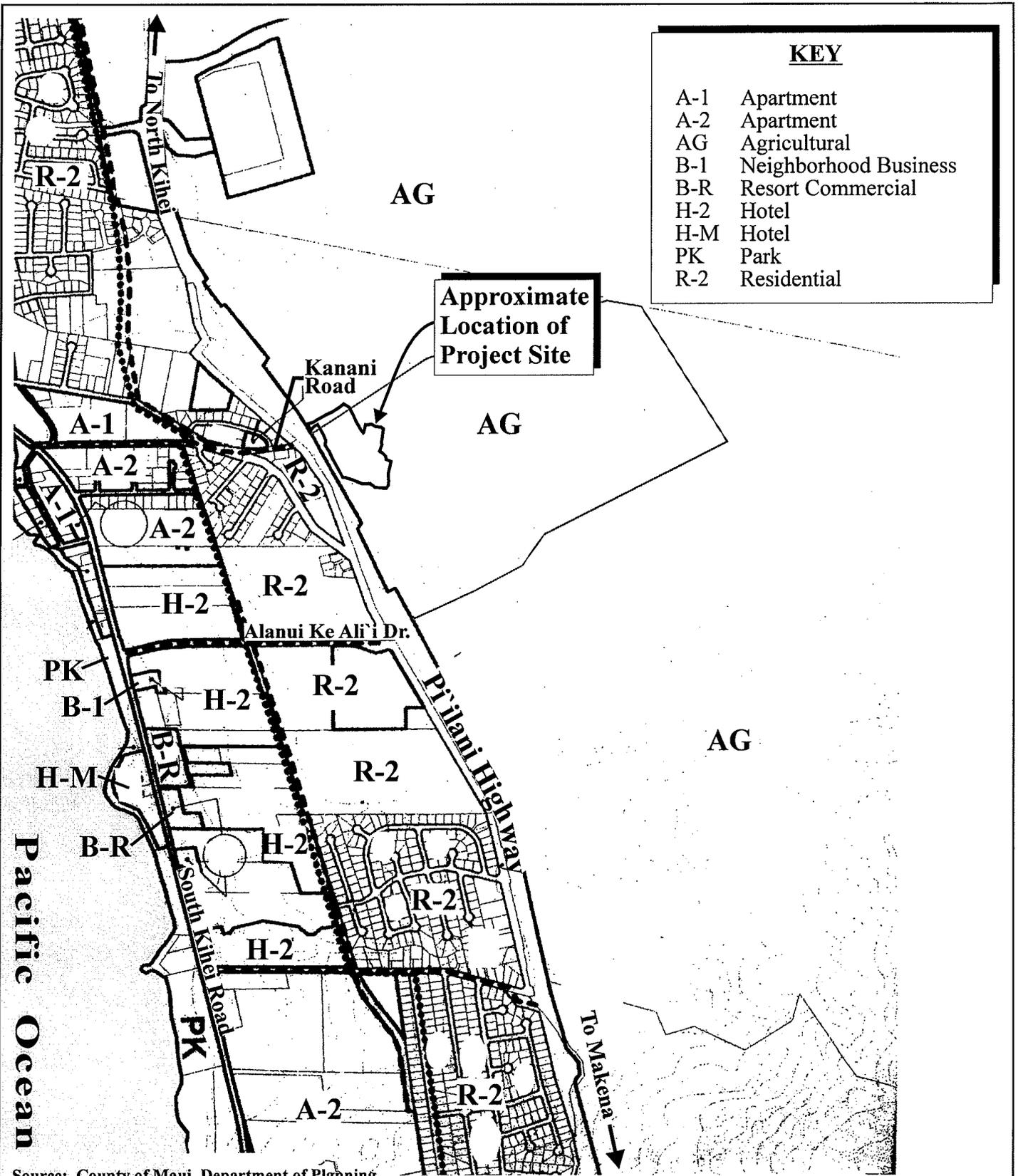
As mentioned, the subject property is currently designated for park use; therefore, a Kihei-Makena Community Plan Amendment (CPA) will be sought to permit project development. The County of Maui Planning Department will initiate the CPA for the project. The project is intended to provide a permanent police facility near an existing residential area and elementary school with ready access to infrastructure systems. The station will be architecturally designed to assimilate well into the existing landscape so as to not impact the character of the area.

**E. COUNTY ZONING**

The project site is currently zoned "Agricultural" by the County of Maui. As with the State Land Use designation, a change in zoning (CIZ) to establish the proposed Public/Quasi-Public zoning designation will be required for the project site. The limits of the proposed County zoning designation are shown in **Figure 16**. The County of Maui Planning Department will initiate the CIZ for the project.

According to Chapter 19.30A.020 of the Maui County Code, agricultural lands that meet at least two (2) of the following criteria should be given the highest priority for retention in the agricultural district:

1. Agricultural Lands of Importance to the State of Hawai'i (ALISH);
2. Lands not classified by the ALISH system whose agricultural land suitability, based on soil, topographic, and climatic conditions, supports the production of agricultural commodities, including but not limited to coffee, taro, watercress, ginger, orchard



Source: County of Maui, Department of Planning

Figure 16 Proposed Kihei Police Station  
Maui County Zoning Map

NOT TO SCALE



and flower crops, and non-irrigated pineapple. In addition, these lands shall include lands used for intensive husbandry, and lands in agricultural cultivation in five of the ten years immediately preceding the date of approval of this chapter; and

3. Lands which have seventy-five percent or more of their boundaries contiguous to lands within the agricultural district.

The project site holds an “Unclassified” designation on the ALISH map. The Parcel 070 is designated “Park” in the Kihei-Makena Community Plan. After discussions with the Police Department, the Department of Parks and Recreation administration concurred that a 10-acre portion of the park site should be set aside for police use.

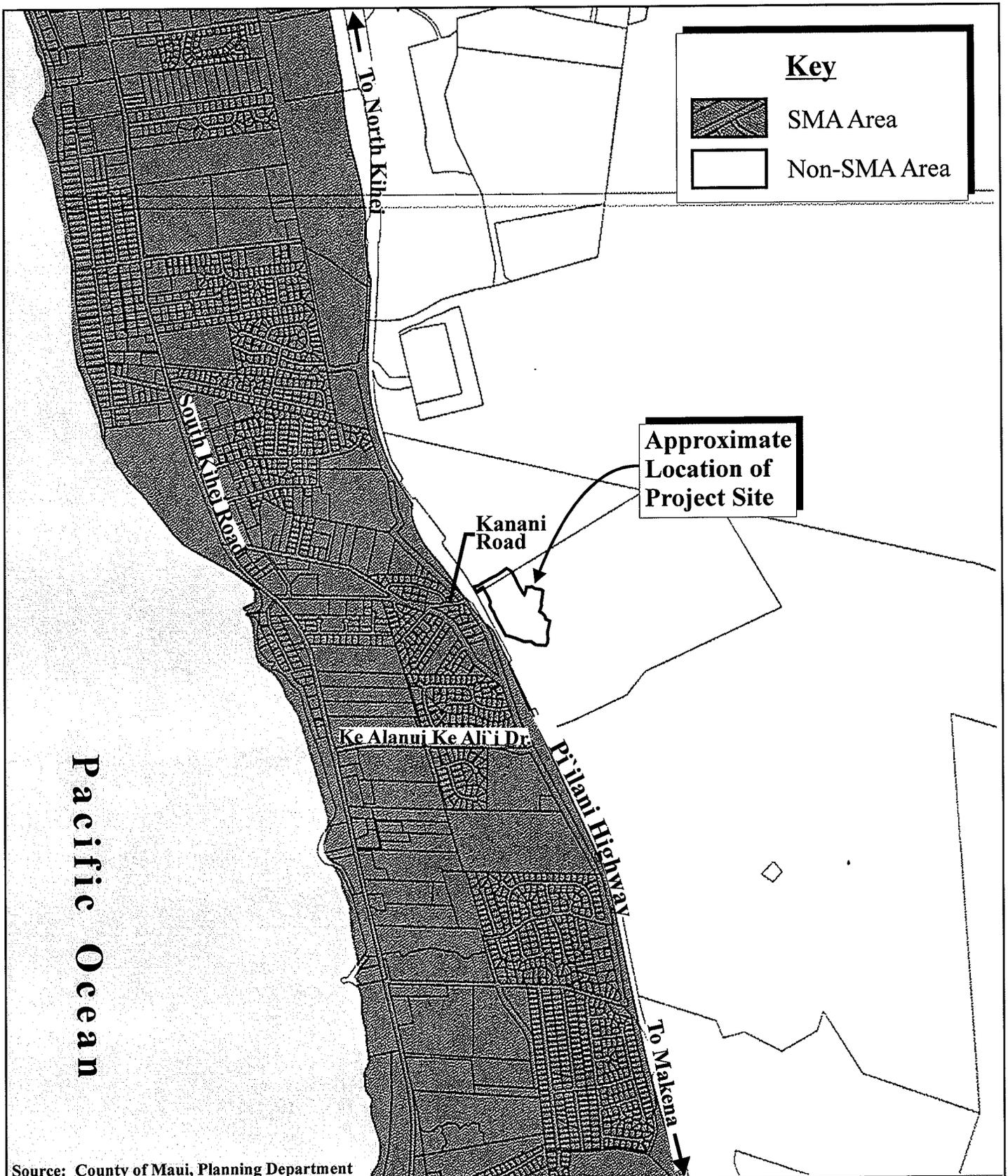
The agricultural impact of this project is near negligible when taken in the context of the recent trends occurring on Maui. In the last 30 years, the closures of Wailuku Sugar and Pioneer Mill on Maui have taken significant acreages out of active sugar cane cultivation. These actions have greatly increased the supply of non-sugar based agricultural lands. In fact, much of the lands of these former plantations are still fallow. The proposed project will ultimately involve the use of approximately 10 acres of land, which represents 0.004 percent of the roughly 246,000 acres of State Agricultural district lands on the island of Maui.

When evaluated based on the pervasive regional need for a permanent district police station in South Maui, the conversion of the project’s agricultural lands into a police station presents a beneficial opportunity. This project will supply additional infrastructure development at a site which has already been designated for public sector use by the community.

In terms of Criteria “3”, the boundaries of the 10-acre project site border both "Urban" and "Agricultural" designated lands. More than 75 percent of the project site’s boundaries are contiguous to lands within the "Agricultural" district. Therefore, only one (1) of the three (3) criteria for retention in the "Agricultural" district exists for this project.

## **F. COASTAL ZONE MANAGEMENT/SPECIAL MANAGEMENT AREA**

The Hawai'i Coastal Zone Management Program (HCZMP), as formalized in Chapter 205A, HRS, establishes objectives and policies for the preservation, protection, and restoration of natural resources of Hawai'i's coastal zone. The project site is located outside of the County of Maui's Special Management Area (SMA). See **Figure 17**.



**Figure 17** Proposed Kihei Police Station  
Special Management Area Map

NOT TO SCALE



As set forth in Chapter 205A, HRS, this section addresses the project's relationship to applicable coastal zone management considerations.

**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.

**Response:** The proposed project is not anticipated to generate additional demands on existing public parks and beach areas. Further, based on its location and development parameters, the project is not anticipated to adversely impact coastal resources, including access to the shoreline.

## 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.

**Response:** As noted previously, no significant impacts to cultural or historic resources are anticipated from the proposed project. Refer to **Appendix “D”** and **Appendix “E”**. Should human remains be inadvertently discovered during ground-altering activities, work will promptly cease in the immediate area of the find, and the find will be further protected from damage. The SHPD and the Maui/Lana`i Islands Burial Council will be notified immediately and procedures for the treatment of inadvertently discovered human remains will be followed pursuant to Chapter 6E, HRS, including stoppage of work in the immediate vicinity of the burial.

## 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.

**Response:** The subject property is located along the lower slope of Haleakala above Pi'ilani Highway at elevations ranging from approximately 130 feet to 180 feet above mean sea level (amsl). The urban forms established by the proposed project plan will conform to height restrictions under Title 19 of the Maui County Code and will be buffered with landscaping to mitigate visual impact. View corridors will not be adversely affected by the proposed project.

**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.

**Response:** With implementation of Best Management Practices (BMPs), the proposed project should have minimal long-term adverse effects on the nearby coastal ecosystems. Appropriate BMPs and erosion-control measures will be implemented to ensure that coastal ecosystems are not adversely impacted by construction activities. Project-related drainage system improvements will be designed in accordance with applicable regulatory standards to mitigate potential adverse impact to surrounding properties.

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.

**Response:** The proposed project is not located at or near the coastline. Based on the regional need for a permanent district police station, the proposed action at the location identified is considered appropriate. The proposed action does not contravene the objective and policies for economic use.

6. **Coastal Hazards**

**Objective:** Reduce hazard to life and property from tsunamis, 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.

**Response:** Project-related drainage system improvements will be designed in accordance with applicable regulatory standards to mitigate potential adverse impact to surrounding properties. The project is located in Flood Zone C, an area of minimal flooding. There are no restrictions or development in Flood Zone C with regards to the Federal Flood Insurance Program.

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.

**Response:** Public input will be solicited in coordination with the processing of the Draft EA, pursuant to the Chapter 343, HRS environmental assessment review process. All aspects of development will be conducted in accordance with applicable Federal, State, and County standards. Opportunities for review of the proposed action are also offered through the land use entitlements review process for the DBA, CPA, and CIZ.

## **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.

**Response:** The EA document will be processed in accordance with Chapter 343, HRS, and opportunity for comment by agencies and the public will be provided. As noted above, the DBA, CPA, and CIZ processes will also address public dialogue and input needs.

## **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.

**Response:** The proposed project is situated inland, away from the shoreline and no adverse effect on beach processes is anticipated. Appropriate Best Management Practices (BMPs) will be implemented to mitigate storm water runoff associated with the project and to ensure that downstream and adjoining properties will not be adversely affected.

## 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.

**Response:** The proposed project is situated inland, away from the ocean and no adverse effect on marine or coastal resources is anticipated. Appropriate BMPs and erosion control measures will be implemented to ensure that coastal resources are not adversely impacted by construction activities.

In addition to the foregoing objectives and policies, SMA permit review criteria pursuant to Act 224 (2005) provides that:

*No special management area use permit or special management area minor permit shall be granted for structures that allow artificial light from floodlights, uplights, or spotlights used for decorative or aesthetic purposes when the light:*

- (1) *Directly illuminates the shoreline and ocean waters;*  
*or*
- (2) *Is directed to travel across property boundaries toward the shoreline and ocean waters.*

**Response:** The proposed project is not located on or near the shoreline. The preliminary lighting plan for the project will be designed to ensure that no lighting is directed across property boundaries towards the shoreline.

## **G. OTHER REGULATORY APPROVALS**

Activities necessitating requirements for Department of the Army permitting and Section 401 Water Quality Certification are not anticipated. Additionally, there are no other Federal permits or licenses required which would prompt the need for a Coastal Zone Management Consistency review.

## **IV. ALTERNATIVES TO THE PROPOSED ACTION**

## **IV. ALTERNATIVES TO THE PROPOSED ACTION**

The applicant has looked at a variety of options in accommodating the proposed project.

### **A. PREFERRED ALTERNATIVE**

The proposed development plan, outlined in Section I. Project Overview, represents the preferred alternative. This alternative, which entails the development of a police station at a site currently owned by the County of Maui and adjacent to necessary infrastructure systems presents a viable, cost-effective opportunity. Further, the site is located in a geographically central area of South Maui, which facilitates rapid response by the police personnel.

### **B. NO ACTION ALTERNATIVE**

As previously mentioned, there is already a need to develop a permanent police station in the South Maui region. The no action alternative would not address the adequacy of police protection and service delivery for current conditions and planned growth.

### **C. POSTPONED ACTION ALTERNATIVE**

Similar to the no action alternative, the postponed action alternative does not address the police protection and service delivery issues and will only exacerbate the issue as new development projects are brought on line.

### **D. ALTERNATIVE LOCATIONS**

The County of Maui examined alternative locations based primarily on cost considerations and the provision of rapid police response to the region. However, there were no appropriately zoned public lands of sufficient size in the area that were not already utilized for some purpose (i.e. schools). Vacant lands available for police station use were essentially limited to vacant agricultural lands. Consequently, the County of Maui selected the centrally located, preferred alternative, since the parcel is already under County of Maui ownership.

**V. SUMMARY OF  
UNAVOIDABLE IMPACTS  
AND COMMITMENTS OF  
RESOURCES**

## **V. SUMMARY OF UNAVOIDABLE IMPACTS AND COMMITMENTS OF RESOURCES**

The development of the project will result in certain unavoidable construction-related environmental impacts as outlined in Chapter II.

In the short term, construction associated with the proposed development will generate noise impacts. These impacts will be limited to the immediate vicinity of the project construction areas. Sound attenuating construction equipment will be used, where practicable, to mitigate noise impacts caused by construction. In the long term, siren noise from police cars is anticipated to occur sporadically throughout the day.

Unavoidable air quality impacts will also arise as a result of construction activities, such as the generation of dust and other airborne pollutants. Appropriate BMPs will be incorporated in the construction process to mitigate adverse impacts, including frequent watering of exposed surfaces and regular maintenance of construction equipment to minimize construction-related impacts.

The project will commit approximately 10 acres of vacant agricultural land to an urban use. Development of the project will alter the existing landscape, but is not anticipated to have an adverse impact upon scenic or open space resources nor will it adversely affect agricultural productivity parameters. The proposed project will be developed as an architecturally integrated area with low-rise structures. Landscaping will be installed as part of the development improvements to ensure visual buffering and softening of the built landscape.

# **VI. SIGNIFICANCE CRITERIA ASSESSMENT**

## VI. SIGNIFICANCE CRITERIA ASSESSMENT

The "Significance Criteria", Section 12 of the Administrative Rules, Title 11, Chapter 200, "Environmental Impact Statement Rules", were reviewed and analyzed to determine whether the proposed project will have significant impacts to the environment. The following criteria and preliminary analysis are provided.

1. **Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.**

As mentioned in Chapter II of this document, a cultural study of the project area concluded that no significant impacts to cultural practices were anticipated, while the archaeological inventory survey concluded that no historic properties would be affected. The archaeological inventory survey was submitted to the State Historic Preservation Division (SHPD) for review. Refer to **Appendix "D"**. Flora and fauna observed on the property were generally limited to non-native, abundant species, therefore, the proposed project is not anticipated to have significant adverse impact on the biological resources in the area. Refer to **Appendix "C"**. The proposed project commits approximately 10 acres of vacant low productivity agricultural land to urban use.

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

The proposed project will not curtail the range of beneficial uses of the environment. Development of detailed engineering and architectural plans will allow for the identification of applicable Best Management Practices (BMPs) to minimize any construction-related impacts. The project will provide needed police presence and enhanced public safety for Maui's growing resident and visitor population in close proximity to existing and future residential neighborhoods, employment centers, and infrastructure.

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 project does not conflict with the State’s Environmental Policy and Guidelines as set forth in Chapter 344, Hawai`i Revised Statutes (HRS). The project site has been designated for public use.

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

On a short-term basis, the project will support construction and construction-related employment and have a beneficial impact on the local economy during the period of construction. From a long-term perspective, area residents and business owners will benefit from the more proficient and pervasive police presence and its impact on deterring crime-related activities.

5. **Substantially affects public health.**

The proposed project is not anticipated to have any significant adverse impacts to public health. It is anticipated that the public’s health and safety will be improved by the existence of a centrally located police station.

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

The proposed project itself is not anticipated to add to resident population in the Kihei-Makena region, therefore, it is not anticipated to result in adverse secondary impacts. Necessary infrastructure systems and services are available to serve the project. Impacts upon other public services and facilities will be addressed with the applicable governmental agencies.

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

The project is not anticipated to have a significant adverse impact upon the natural environment. During construction, recommended Best Management Practices (BMPs) will be implemented for erosion and sedimentation control. Design of the project will incorporate the use of an onsite detention basin to mitigate offsite drainage runoff and impacts to coastal waters. Other appropriate mitigation measures

will be developed in consultation with the applicable governmental agencies during the project design process.

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

The proposed project is not anticipated to have a cumulative adverse impact on the environment, nor involve a commitment to larger actions. As previously noted, the project site is a location already designated for public sector use. Due to its location having relative adjacency to an existing residential area, infrastructure systems and services are available to serve the project. The development of a police station at the site is not anticipated to have a significant adverse impact on the physical environment.

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

Flora and fauna surveys of the property found the site generally limited to non-native, abundant species, and the proposed project is not anticipated to have significant negative impact on the biological resources in the area. Refer to **Appendix "C"**.

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

Construction activities will result in short-term air quality and noise impacts. Dust control measures, such as regular watering and sprinkling, and installation of dust screens will be implemented to minimize wind-blown emissions. In the short term, noise impacts will occur primarily from construction equipment and measures to remove blue rock. Equipment mufflers or other noise attenuating equipment, as well as proper equipment and vehicle maintenance, will be used during construction activities. Construction noise impacts will be mitigated through compliance with the provisions of the State of Hawai'i, Department of Health Administrative Rules Title 11, Chapter 46, "Community Noise Control". These rules require a noise permit if the noise levels from construction activities are expected to exceed the allowable levels set forth in the Chapter 46 rules. In the long term, siren noise from police cars is anticipated sporadically throughout the day. However, these noise disturbances are not anticipated to significantly affect overall noise conditions in this largely undeveloped area mauka of Pi'ilani Highway.

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

The site is situated inland of the shoreline and is not anticipated to have any adverse impact upon coastal waters or resources. The project site is situated within Zone C, an area of minimal flooding. The site is not situated within a tsunami inundation zone. The use of an onsite detention basin is expected to mitigate offsite drainage runoff and impacts to coastal waters. Further appropriate mitigation measures will be developed in consultation with the applicable governmental agencies during the design process. During construction, recommended BMPs will be implemented for erosion and sedimentation control.

12. **Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.**

The proposed project is located at approximate elevations ranging between 130 feet and 180 feet above mean sea level and will not adversely affect any previously identified scenic vistas or viewplanes. Landscaping will be implemented as part of the development improvements to ensure visual buffering and softening of the built landscape. Adverse impacts to scenic or open space resources resulting from the project are not anticipated.

13. **Requires substantial energy consumption.**

The proposed project will involve the commitment of fuel for construction equipment, vehicles, and machinery during construction and maintenance activities. Coordination with Maui Electric Company (MECO) will be undertaken during the electrical plans preparation phase of work to ensure all operational parameters are addressed for the proposed project. Where feasible, energy saving measures will be incorporated into the project design. The project's central location in South Kihei, in close proximity to employment centers in South Maui, will result in lower long term transportation/fuel costs than other more distant locations.

In summary, the site is situated at an attractive and central location in South Maui adjacent to the Pi'ilani Highway for convenient access, in close proximity to residential subdivisions and employment centers in the region. Necessary infrastructure systems and services are within near proximity. Development of a police station at the site is not anticipated to have a significant adverse

impact on the physical environment. Based on the foregoing analysis, the proposed action under this Chapter 343, HRS document is deemed to be a Finding of No Significant Impact (FONSI).

# **VII. LIST OF PERMITS AND APPROVALS**

## VII. LIST OF PERMITS AND APPROVALS

The following list of permits and approvals are anticipated to be needed for project implementation.

1. **State of Hawai'i**

- A. District Boundary Amendment.
- B. NPDES Permits, as applicable.
- C. Section 401 Water Quality Certification, as applicable.
- D. Noise Permit, as applicable.

2. **County of Maui**

- A. Community Plan Amendment.
- B. Change in Zoning.
- C. Subdivision.
- D. Construction Permits.

**VIII. PARTIES  
CONSULTED DURING THE  
PREPARATION OF THE  
DRAFT ENVIRONMENTAL  
ASSESSMENT; LETTERS  
RECEIVED; AND  
RESPONSES TO  
SUBSTANTIVE  
COMMENTS**

# VIII. PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED; AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies were consulted during preparation of the Draft Environmental Assessment (EA). Agency comments and responses to substantive comments are included herein.

## FEDERAL AGENCIES

1. Larry Yamamoto, State Conservationist  
**U.S. Department of Agriculture**  
**Natural Resources Conservation Service**  
P.O. Box 50004  
Honolulu, Hawai'i 96850-0001
2. Ranae Ganske-Cerizo,  
Soil Conservationist  
**Natural Resources Conservation Service**  
**U.S. Department of Agriculture**  
700 Hookele Street, Suite 202  
Kahului, Hawai'i 96732
3. George Young  
Chief, Regulatory Branch  
**U.S. Department of the Army**  
U.S. Army Engineer District, Honolulu  
Regulatory Branch  
Building 230  
Fort Shafter, Hawai'i 96858-5440
4. Patrick Leonard  
Field Supervisor  
**U. S. Fish and Wildlife Service**  
300 Ala Moana Blvd., Rm. 3-122  
Box 50088  
Honolulu, Hawai'i 96813

## STATE AGENCIES

5. Russ K. Saito, State Comptroller  
**Department of Accounting and General Services**  
1151 Punchbowl Street, #426  
Honolulu, Hawai'i 96813
6. Sandra Lee Kunimoto, Chair  
**Department of Agriculture**  
1428 South King Street  
Honolulu, Hawai'i 96814-2512
7. Georgina K. Kawamura, Director  
**Department of Budget and Finance**  
P. O. Box 150  
Honolulu, Hawai'i 96810
8. Executive Director  
**Hawai'i Housing Finance and Development Corporation**  
677 Queen Street  
Honolulu, Hawai'i 96813
9. Theodore E. Liu, Director  
State of Hawai'i  
**Department of Business, Economic Development & Tourism**  
P.O. Box 2359  
Honolulu, Hawai'i 96804

10. Patricia Hamamoto, Superintendent  
State of Hawai'i  
**Department of Education**  
P.O. Box 2360  
Honolulu, Hawai'i 96804
11. Heidi Meeker  
Planning Division  
Office of Business Services  
**Department of Education**  
c/o Kalani High School  
4680 Kalaniana'ole Highway, #T-B1A  
Honolulu, Hawai'i 96821
- cc: Bruce Anderson,  
Complex Area Superintendent  
(Central/Upcountry Maui)
12. Micah Kane, Chairman  
**Department of Hawaiian Home Lands**  
P. O. Box 1879  
Honolulu, Hawai'i 96805
13. Chiyome Fukino, M.D., Director  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814
14. Alec Wong, P.E., Acting Chief  
**Clean Water Branch**  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814
15. Herbert Matsubayashi  
District Environmental Health  
Program Chief  
State of Hawai'i  
**Department of Health**  
54 High Street  
Wailuku, Hawai'i 96793
16. Laura Thielen, Chairperson  
State of Hawai'i  
**Department of Land and Natural Resources**  
P. O. Box 621  
Honolulu, Hawai'i 96809
17. Dr. Puaalaokalani Aiu, Administrator  
State of Hawai'i  
**Department of Land and Natural Resources**  
**State Historic Preservation Division**  
601 Kamokila Blvd., Room 555  
Kapolei, Hawai'i 96707
18. Hinano Rodrigues  
**Maui/Lanai Islands Burial Council**  
130 Mahalani Street  
Wailuku, Hawai'i 96793
19. Brennon Morioka, Director  
State of Hawai'i  
**Department of Transportation**  
869 Punchbowl Street  
Honolulu, Hawai'i 96813
- cc: Fred Cajigal
20. Major General Robert G.S. Lee, Director  
**Hawai'i State Civil Defense**  
3949 Diamond Head Road  
Honolulu, Hawai'i 96816-4495
21. Katherine Kealoha, Director  
**Office Of Environmental Quality Control**  
235 S. Beretania Street, Suite 702  
Honolulu, Hawai'i 96813
22. Clyde Namu'o, Administrator  
**Office of Hawaiian Affairs**  
711 Kapiolani Boulevard, Suite 500  
Honolulu, Hawai'i 96813
23. Abbey Seth Mayer, Director  
State of Hawai'i  
**Office of Planning**  
P.O. Box 2359  
Honolulu, Hawai'i 96804
24. Dan Davidson, Executive Officer  
State of Hawai'i  
**State Land Use Commission**  
P.O. Box 2359  
Honolulu, Hawai'i 96804

**COUNTY AGENCIES**

25. Charmaine Tavares, Mayor  
County of Maui  
200 South High Street  
Wailuku, Hawai'i 96793
26. Deidre Tegarden, Director  
County of Maui  
**Office of Economic Development**  
2200 Main Street, Suite 305  
Wailuku, Hawai'i 96793
27. Gen Inuma, Administrator  
**Maui Civil Defense Agency**  
200 South High Street  
Wailuku, Hawai'i 96793
28. Jeffrey A. Murray, Fire Chief  
County of Maui  
**Department of Fire  
and Public Safety**  
200 Dairy Road  
Kahului, Hawai'i 96732
29. Vanessa A. Medeiros, Director  
County of Maui  
**Department of Housing and  
Human Concerns**  
One Main Plaza  
2200 Main Street, Suite 546  
Wailuku, Hawai'i 96793
30. Tamara Horcajo, Director  
County of Maui  
**Department of Parks and Recreation**  
700 Halia Nako Street, Unit 2  
Wailuku, Hawai'i 96793
31. Jeffrey Hunt, Director  
County of Maui  
**Department of Planning**  
250 South High Street  
Wailuku, Hawai'i 96793
32. Milton Arakawa, Director  
County of Maui  
**Department of Public Works**  
200 South High Street  
Wailuku, Hawai'i 96793
33. Cheryl Okuma, Director  
County of Maui  
**Department of Environmental  
Management**  
One Main Plaza  
2200 Main Street, Suite 176  
Wailuku, Hawai'i 96793
34. Donald Medeiros, Director  
County of Maui  
**Department of Transportation**  
200 South High Street  
Wailuku, Hawai'i 96793
35. Jeffrey Eng, Director  
County of Maui  
**Department of Water Supply**  
200 South High Street  
Wailuku, Hawai'i 96793
36. G. Riki Hokama, Council Chair  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
37. Danny Mateo, Council Vice Chair  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
38. Councilmember Michelle Anderson  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
39. Councilmember Gladys Baisa  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
40. Councilmember Jo Anne Johnson  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
41. Councilmember Bill Medeiros  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
42. Councilmember Michael J. Molina  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793

- 43. Councilmember Joseph Pontanilla  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai`i 96793
- 44. Councilmember Mike Victorino  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai`i 96793

**UTILITIES**

- 45. **Hawaiian Telcom**  
60 South Church Street  
Wailuku, Hawai`i 96793
- 46. Greg Kauhi, Manager, Customer  
Operations  
**Maui Electric Company, Ltd.**  
P.O. Box 398  
Kahului, Hawai`i 96733

**COMMUNITY ORGANIZATIONS**

- 47. **Kihei Community Association**  
P. O. Box 662  
Kihei, Hawai`i 96753



Natural Resources Conservation Service  
P.O. Box 50004 Rm. 4-118  
Honolulu, HI 96850  
808-541-2600

June 20, 2008

Kyle Ginoza  
Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza,

Thank you for providing the NRCS the opportunity to review the Early Consultation Request for the Proposed Kihei Police Station. 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.

Please find enclosed an NRCS Soil Survey Map and selected soil reports. The Soil Survey Map identifies all soil map units in the project area. The soil reports provide selected soil properties and interpretations, e.g., limitations for roads, and small commercial buildings, soil layers with USDA textures, and engineering classifications. The limitation ratings for the selected uses, small commercial buildings and local roads and streets, are severe and very limited respectively. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increase costs, and/or require continued maintenance.

The NRCS Soil Survey is a general planning tool and does not eliminate the need for an onsite investigation. If you have any questions concerning the soils or interpretations for this project please call, Tony Rolfes, Assistant State Soil Scientist, (808) 541-2600 x129, or email, [Tony.Rolfes@hi.usda.gov](mailto:Tony.Rolfes@hi.usda.gov).

  
FOR  
LAWRENCE T. YAMAMOTO  
Director  
Pacific Islands Area

cc: Michael Robotham, Assistant Director for Soil Science and Natural Resource Assessments, USDA-NRCS, Honolulu, HI

Enclosures:

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# Map Unit Legend

Island of Maui, Hawaii

Map symbol	Map unit name
PZUE	Puuone sand, 7 to 30 percent slopes
WID2	Waiakoa extremely stony silty clay loam, 3 to 25 percent slopes, eroded

# SOILS MAP

## Proposed Kihei Police Station - Maui



## Selected Soil Interpretations

Island of Maui, Hawaii

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

\*This soil interpretation was designed as a "limitation" as opposed to a "suitability". The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation.

Map symbol and soil name	Pct. of map unit	ENG - Local Roads and Streets	
		Rating class and limiting features	Value
<b>PZUE:</b>			
Puuone	100	Very limited	
		Slope	1.00
<b>WID2:</b>			
Waiakoa, extremely stony	100	Very limited	
		Large stones content	1.00
		Slope	0.96
		Depth to hard bedrock	0.64
		Low strength	0.10

## Selected Soil Interpretations

Island of Maui, Hawaii

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

\*This soil interpretation was designed as a "limitation" as opposed to a "suitability". The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation.

Map symbol and soil name	Pct. of map unit	ENG - Dwellings W/O Basements (HI) *		ENG - Small Commercial Buildings (HI) *	
		Rating class and limiting features	Value	Rating class and limiting features	Value
<b>PZUE:</b>					
Puuone	100	Severe Slopes > 15%	1.00	Severe Slopes > 8%	1.00
<b>WID2:</b>					
Waiakoa, extremely stony	100	Severe Fragments (>3") >50%	1.00	Severe Slopes > 8% Fragments (>3") >50%	1.00
		Slopes 8 to 15%	0.85		
		Bedrock (hard) from 20 to 40"	0.64	Bedrock (hard) from 20 to 40"	0.64

# Engineering Properties

Island of Maui, Hawaii

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percent passing sieve number--				Liquid limit	Plasticity index	
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200			
				Pct		Pct		Pct					
PZUE: Puuone	0-20	Sand	SP-SM	A-1, A-2, A-3	0-5	0-5	85-95	80-90	40-60	5-10	0-14	NP-2	
	20-40	Cemented material	SP-SM	A-1, A-2, A-3	0	0	0	0	0	0	0-14	NP-2	
WID2: Waiakoa, extremely stony	0-1	Extremely stony silty clay loam	CL-K (propose d), ML-K (propose d)	A-6	25-45	35-55	85-95	85-95	85-95	80-95	35-40	10-20	
	1-20	Extremely stony silty clay loam	CL-K (propose d), ML-K (propose d)	A-6	25-50	35-55	85-100	85-90	80-90	75-85	35-40	10-20	
	20-28	Stony silty clay loam	CL-K (propose d), GC, GM, ML-K (propose d)	A-6	10-20	15-25	70-85	65-75	55-70	45-60	35-40	10-20	
	28-32	Bedrock	---	---	0	0	0	0	0	0	0	NP	



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINOZA

March 13, 2009

Lawrence T. Yamamoto, Director  
Pacific Islands Area  
**Natural Resources Conservation Service**  
P. O. Box 50004  
Honolulu, Hawai'i 96850-0001

SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei, Maui, Hawai'i

Dear Mr. Yamamoto:

Thank you for your letter dated June 20, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments.

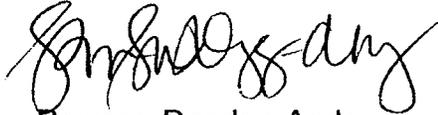
1. We acknowledge that the project site does not contain prime or important farmlands nor are hydric soils (indicative of potential areas of wetlands) located in the project area. It is noted that if wetlands do exist at the project site, however, that any proposed impacts to these wetlands would need to demonstrate compliance with the Clean Water Act and may need a Department of the Army, Corps of Engineers permit.
2. We have reviewed the soil survey map and selected soil reports you provided. Thank you for providing us that information.

We appreciate the input we received from your office. A copy of the Draft Environmental Assessment (EA) will be provided for your review and comment.

Lawrence T. Yamamoto, Director  
March 13, 2009  
Page 2

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

F:\DATA\MA\KiheiPolice\NRCS\Secresp.ltr.wpd

JUL 16 2008



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office  
300 Ala Moana Boulevard, Room 3-122, Box 50088  
Honolulu, Hawaii 96850

In Reply Refer To:  
2008-TA-0258

JUL 15 2008

Mr. Kyle Ginoza  
Project Manager  
Hunekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Subject: Request for Technical Assistance for Proposed Kihei Police Station, TMK (2) 2-2-002:070(por.), Kihei, Maui, Hawaii

Dear Mr. Ginoza:

Thank you for your June 10, 2008, letter, which we received on June 16, 2008, indicating that you are compiling information that will be incorporated into an environmental assessment for a change in zoning and development of a two-story 46,934-square foot police station in Kihei, Maui. Based on the project information you provided and pertinent information in our files, including data compiled by the Hawaii Biodiversity and Mapping Program, the threatened Newell's shearwater (*Puffinus auricularis newelli*) and endangered Hawaiian petrel (*Pterodroma phaeopygia sandwichensis*) (collectively referred to as seabirds), endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), and endangered Hawaiian goose (*Branta sandvicensis*) are known to occur and use habitats within the vicinity of the proposed project. We recommend you address potential project impacts to these listed species in your planning documents. We provide the following specific recommendations for your use in project plans:

- Construction equipment, poles, antennas, and other structures associated with the project could pose a flight obstacle to the night-flying seabirds during the breeding season. Any increase in the use of night-time lighting, particularly during each year's peak fallout period, could result in seabird disorientation, fallout, and injury or mortality. Potential impacts to seabirds could be minimized by shielding outdoor lights associated with the project, avoiding night-time construction, and providing all project staff and residents with information about seabird fallout. All lights, including street lights, should be shielded so the bulb can be seen only from below. Use of lights at night during the peak fallout period of September 15 through December 15 should be avoided.
- To avoid impacts to the endangered Hawaiian hoary bat, woody plants suitable for bat roosting should not be removed or trimmed during the bat birthing and pup rearing season (April to August) and use of barbed wire in fences should be prohibited. If this

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IN AMERICA 

avoidance measure can not be implemented, bat surveys are recommended in areas where tree cutting or fence construction is planned.

- The endangered Hawaiian goose may be attracted to ditches and mowed grass areas in the project area, increasing their vulnerability to collision with vehicles and exposure to domesticated animal predators. If the Hawaiian goose is attracted to the site, you should contact our office for additional information regarding actions to address potential impacts to this species.
- We recommend using native plants for landscaping purposes in order to reduce the spread of non-native invasive species. If native plants do not meet your landscaping objectives, we recommend that you choose species that are thought to have a low risk of becoming invasive. The following websites are good resources to use when choosing landscaping plants: Pacific Island Ecosystems at Risk (<http://www.hear.org/Pier/>), Hawaii-Pacific Weed Risk Assessment ([http://www.botany.hawaii.edu/faculty/daehler/wra/full\\_table.asp](http://www.botany.hawaii.edu/faculty/daehler/wra/full_table.asp)) and Global Compendium of Weeds ([www.hear.org/gcw](http://www.hear.org/gcw)).

If, you determine the proposed project may adversely impact federally listed species, please contact our office for further assistance. For additional information, please contact Consultation and Technical Assistance Program Fish and Wildlife Biologist, Dawn Greenlee (phone: 808-792-9400; fax: 808-792-9581).

Sincerely,

*Christa Russen*

*for* Patrick Leonard  
Field Supervisor



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINOZA

March 13, 2009

Patrick Leonard, Field Supervisor  
**U. S. Fish and Wildlife Service**  
300 Ala Moana Blvd., Rm. 3-122  
Box 50088  
Honolulu, Hawai'i 96813

**SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei,  
Maui, Hawai'i**

---

Dear Mr. Leonard:

Thank you for your letter dated July 15, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments.

1. We acknowledge that the threatened Newell's shearwater, the endangered Hawaiian petrel, the endangered Hawaiian hoary bat, and the endangered Hawaiian goose are known to exist in and use habitats within the vicinity of the proposed project.
2. A Flora and Fauna Survey will be conducted for the proposed project and a survey report will be included in the Draft Environmental Assessment (EA).
3. We have reviewed the specific recommendations you noted and will forward them to the applicant's architect and civil engineer for implementation.

We appreciate the input we received from your office. A copy of the Draft EA will be provided for your review and comment.

Patrick Leonard, Field Supervisor  
March 13, 2009  
Page 2

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

F:\DATA\MAM\KheiPolice\USFWSecresp.ltr.wpd

JUL 31 2008



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

July 29, 2008

REPLY TO  
ATTENTION OF:

Regulatory Branch

File Number POH-2008-212

Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793  
Attn: Mr. Kyle Ginoza

Dear Mr. Ginoza:

We have received your June 10, 2008 request for early consultation comments in preparation of a Draft Environment Assessment (EA) for the proposed Kihei Police Station. The site is located within TMK (2) 2-2-02:070 and at Latitude 20.728° N. and Longitude 156.441° W., in Kihei, Maui, Hawaii. The file number assigned POH-2008-212 should be referred to in future correspondence with us.

We recommend that the draft EA address whether any potential waters of the U.S., as represented by the presence of perennial, intermittent or ephemeral streams or wetlands, are in, adjacent to or flow through, the land parcel subject to development. The EA should also disclose whether any streams or other aquatic resources that may occur within the land parcel have an existing direct or indirect surface water connection to the Pacific Ocean.

Section 404 of the Clean Water Act requires that a Department of the Army (DA) permit be obtained for the discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands (33 U.S.C. 1344). The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide extending shoreward to the mean high water mark.

We appreciate the opportunity to provide comments on the proposed development project and associated EA. Should you have any questions regarding this jurisdictional determination, please contact Ms. Joy Anamizu of my staff at (808) 438-7023 or by e-mail at [joy.n.anamizu@usace.army.mil](mailto:joy.n.anamizu@usace.army.mil) and reference the Corps File No. POH-2008-212 in all future correspondence and inquiries related to this project.

Sincerely,

A handwritten signature in black ink, appearing to read "George P. Young".

George P. Young, P.E.  
Chief, Regulatory Branch

**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 29 Jul 2008**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Honolulu (CEPOH-EC-R) POH-2008-212 Kihei Police Station**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION: Kihei, Maui; TMK (2) 2-2-002:070**

State: Hawaii County/parish/borough: Maui County City: Kihei

Center coordinates of site (lat/long in degree decimal format): Lat. 20.72751° , Long. 156.4407° .

Universal Transverse Mercator: UTM Zone 4 North NAD83

Name of nearest waterbody: Pacific Ocean

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:

Name of watershed or Hydrologic Unit Code (HUC):

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date: 28 Jul 2008

Field Determination. Date(s):

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There  **are** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There  **are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: acres.

**c. Limits (boundaries) of jurisdiction based on:**

Elevation of established OHWM (if known):

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: Site absent of WOUS.

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.

(b) General Tributary Characteristics (check all that apply):

- Tributary is:  Natural  
 Artificial (man-made). Explain:  
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width:           feet  
Average depth:           feet  
Average side slopes: Pick List

Primary tributary substrate composition (check all that apply):

- |  |  |                                   |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts           | <input type="checkbox"/> Sands                     | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles         | <input type="checkbox"/> Gravel                    | <input type="checkbox"/> Muck     |
| <input type="checkbox"/> Bedrock         | <input type="checkbox"/> Vegetation. Type/% cover: |                                   |
| <input type="checkbox"/> Other. Explain: |  |                                   |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: Pick List

Tributary gradient (approximate average slope):            %

(c) Flow:

Tributary provides for: Pick List

Estimate average number of flow events in review area/year: Pick List

Describe flow regime:

Other information on duration and volume:

Surface flow is: Pick List. Characteristics:

Subsurface flow: Pick List. Explain findings:

- Dye (or other) test performed:

Tributary has (check all that apply):

- |   |   |
|---|---|
| <input type="checkbox"/> Bed and banks  |   |
| <input type="checkbox"/> OHWM <sup>6</sup> (check all indicators that apply): |   |
| <input type="checkbox"/> clear, natural line impressed on the bank            | <input type="checkbox"/> the presence of litter and debris          |
| <input type="checkbox"/> changes in the character of soil                     | <input type="checkbox"/> destruction of terrestrial vegetation      |
| <input type="checkbox"/> shelving   | <input type="checkbox"/> the presence of wrack line                 |
| <input type="checkbox"/> vegetation matted down, bent, or absent              | <input type="checkbox"/> sediment sorting                           |
| <input type="checkbox"/> leaf litter disturbed or washed away                 | <input type="checkbox"/> scour                                      |
| <input type="checkbox"/> sediment deposition                                  | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining                                       | <input type="checkbox"/> abrupt change in plant community           |
| <input type="checkbox"/> other (list):  |   |
| <input type="checkbox"/> Discontinuous OHWM. <sup>7</sup> Explain:            |   |

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> High Tide Line indicated by:   | <input checked="" type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects      | <input type="checkbox"/> survey to available datum;                    |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings;                            |
| <input type="checkbox"/> physical markings/characteristics         | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges                              |  |
| <input type="checkbox"/> other (list):                             |  |

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

<sup>6</sup>A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup>Ibid.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

### C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

**Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:**

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

### D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:  
 TNWs: linear feet width (ft), Or, acres.  
 Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**  
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:  
 Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.  
Identify type(s) of waters:
- Wetlands: acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
- Other: (explain, if not covered above): **Site consists entirely of Uplands.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource:
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource:
- Wetlands: acres.

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Letter & Enclosures dated 10 Jun 2008.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: USGS Quad 1:24000 (TIG eGIS website, 1997).
- USDA Natural Resources Conservation Service Soil Survey. Citation: Survey conducted 31 Dec 2006.
- National wetlands inventory map(s). Cite name: US Fish & Wildlife Service Online Wetland Mapper, ret'vd 28 Jul 2008.
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
  - 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): Satellite Image (TIG eGIS website, 2004-2006).  
or  Other (Name & Date): Enclosures dated 10 Jun 2008 submitted by applicant.
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify):

**B. ADDITIONAL COMMENTS TO SUPPORT JD:**



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINZA

March 13, 2009

George P. Young, P.E., Chief  
Regulatory Branch  
**Department of the Army**  
U. S. Army Engineer District, Honolulu  
Fort Shafter, Hawai'i 96858-5440

**SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei,  
Maui, Hawai'i; File No. POH-2008-212**

Dear Mr. Young:

Thank you for your letter dated July 29, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments.

1. A discussion on the presence of any potential waters of the United States (U.S.), as represented by the presence of perennial, intermittent, or ephemeral streams or wetlands, adjacent to or within project site, will be included in the Draft Environmental Assessment (EA).
2. The applicant acknowledges that Section 404 of the Clean Water Act requires that a Department of the Army (DA) permit be obtained for the discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands.
3. The applicant acknowledges that Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S.

We appreciate the input we received from your office. A copy of the Draft EA will be provided for your review and comment.

George P. Young, P.E., Chief  
March 13, 2009  
Page 2

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:me

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

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LINDA LINGLE  
GOVERNOR



JUN 19 2008

JANICE N. TAKAHASHI  
INTERIM EXECUTIVE DIRECTOR

**STATE OF HAWAII**

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM  
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION  
677 QUEEN STREET, SUITE 300  
Honolulu, Hawaii 96813  
FAX: (808) 587-0600

IN REPLY REFER TO:

08:PEO/66

June 17, 2008

Mr. Kyle Ginoza, Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:

Subject: Early Consultation Request for Proposed Kihei Police Station  
TMK (2)2-2-002:070(por), Kihei, Maui, Hawaii

Thank you for the opportunity to review the project overview for the proposed Kihei Police Station project.

We have no housing-related comments to offer at this time.

Sincerely,

Janice Takahashi  
Interim Executive Director

LINDA LINGLE  
GOVERNOR OF HAWAII

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



Department of Land and Natural Resources  
RECEIVED  
LAND DIVISION  
2008 JUN 20 P 3:11

DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

RECEIVED  
STATE PARKS DIV  
JUN 19 19:35 '08

June 18, 2008

MEMORANDUM

DEPT. OF LAND  
NATURAL RESOURCES

TO:  
From:

**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

To  
 FROM: *D* Morris M. Atta, Administrator *Thielen*  
 SUBJECT: Early Consultation Request for Proposed Kihei Police Station  
 LOCATION: Kihei, Island of Maui; TMK: (2) 2-2-002:070 por.  
 APPLICANT: Munekiyo & Hiraga, Inc. for County of Maui

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by June 26, 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 Darlene Nakamura at 587-0417. Thank you.

Attachments

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

Signed: *[Signature]*  
Date: 6/20/08

cc: Central Files



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

June 18, 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

RECEIVED  
LAND DIVISION  
08 JUN 18 10:45  
DEPT. OF LAND & NATURAL RESOURCES  
STATE OF HAWAII

FROM: *Morris M. Atta* Morris M. Atta, Administrator  
SUBJECT: Early Consultation Request for Proposed Kihei Police Station  
LOCATION: Kihei, Island of Maui; TMK: (2) 2-2-002:070 por.  
APPLICANT: Munekiyo & Hiraga, Inc. for County of Maui

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by June 26, 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 Darlene Nakamura at 587-0417. Thank you.

Attachments

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

Signed: *Edwin T. Salcedo*  
Date: *6/19/08*

cc: Central Files

JUN 2 5 2008

LINDA LINGLE  
GOVERNOR



RUSS K. SAITO  
COMPTROLLER

BARBARA A. ANNIS  
DEPUTY COMPTROLLER

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

(P)1174.8

JUN 2 4 2008

Mr. Kyle Ginoza  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:

Subject: Early Consultation Request for Proposed Kihei Police Station  
TMK: (2) 2-2-002:070 (por.)  
Kihei, Maui, Hawaii

Thank you for the opportunity to provide early consultation comments on the proposed Kihei Police Station project.

This proposed 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 call me at 586-0400 or have your staff call Mr. Clarence Kubo of the Public Works Division at 586-0488.

Sincerely,

  
RUSS K. SAITO  
State Comptroller



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

OFFICE OF THE SUPERINTENDENT

June 26, 2008

Mr. Kyle Ginoza, Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawai'i 96783

Dear Mr. Ginoza:

SUBJECT: Early Consultation Request for Proposed Kihei Police Station  
Kihei, Maui Hawai'i, TMK (2)2-2-002:070 (por.)

The Department of Education has no comment or concern about the proposed construction of the Kihei Police Station.

Should you have any questions, please call George Casen of the Facilities Development Branch at (808) 377-8301.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Patricia Hamamoto".

Patricia Hamamoto  
Superintendent

PH:to

c: Randolph Moore, Assistant Superintendent, OSFSS  
Duane Kashiwai, Public Works Administrator, FDB  
Bruce Anderson, CAS, Baldwin/King Kekaulike/Maui Complex Areas

LINDA LINGLE  
GOVERNOR

MAJOR GENERAL ROBERT G. F. LEE  
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA  
VICE DIRECTOR OF CIVIL DEFENSE



JUN 27 2008



PHONE (808) 733-4300  
FAX (808) 733-4287

**STATE OF HAWAII**  
DEPARTMENT OF DEFENSE  
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE  
3949 DIAMOND HEAD ROAD  
HONOLULU, HAWAII 96816-4495

June 26, 2008

Mr. Kyle Ginoza  
Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:

Early Consultation Request  
Proposed Kihei Police Station

Thank you for the opportunity to comment on this development. After review of the letter and maps you have sent for this project, we have no early consultation comments to make. The proposed area falls within coverage arcs of existing warning sirens. We will anticipate reviewing the Environmental Assessment when it is completed and make any appropriate comments at that time.

If you have any questions please call Havinne Okamura, Hazard Mitigation Planner, at (808) 733-4300, extension 556.

Sincerely,

  
EDWARD T. TEIXEIRA  
Vice Director of Civil Defense

LINDA LINGLE  
GOVERNOR OF HAWAII



JUN 30 2008

CHIYOME L. FUKINO, M. D.  
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P.  
DISTRICT HEALTH OFFICER

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
MAUI DISTRICT HEALTH OFFICE  
54 HIGH STREET  
WAILUKU, MAUI, HAWAII 96793-2102

June 27, 2008

Mr. Kyle Ginoza  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawai'i 96793

Dear Mr. Ginoza:

Subject: **Early Consultation Request for Proposed Kihei Police Station  
TMK: (2) 2-2-002: 070 (por.)**

Thank you for the opportunity to participate in the early consultation process for the proposed Kihei Police Station. The following comments are offered:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage is required for this project. The Clean Water Branch should be contacted at 808 586-4309.
2. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.
3. HAR, Chapter 11-46 sets maximum allowable sound levels from stationary equipment such as compressors and HVAC equipment. The attenuation of noise from these sources may depend on the location and placement of these types of equipment. This should be taken into consideration during the planning, design, and construction of the building and installation of these types of equipment.

Mr. Kyle Ginoza  
June 27, 2008  
Page 2

It is strongly recommended that the Standard Comments found at the Department's website: <http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html> be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Matsubayashi', enclosed within a large, hand-drawn oval.

Herbert S. Matsubayashi  
District Environmental Health Program Chief

c: EPO



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINZA

March 13, 2009

Herbert Matsubayashi  
Maui District Health Office  
**Department of Health**  
54 High Street  
Wailuku, Hawai'i 96793

SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei, Maui, Hawai'i

Dear Mr. Matsubayashi:

Thank you for your letter dated June 27, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments.

1. The applicant's civil engineer will contact the Clean Water Branch, as necessary, to address applicable National Pollutant Discharge Elimination System (NPDES) permit requirements for the project.
2. Pursuant to Hawai'i Administrative Rules (HAR), Chapter 11-46, "Community Noise Control", a noise permit will be secured prior to commencement of construction, as applicable.
3. The planning, design, and construction of the project will be undertaken in accordance with the maximum allowable sound levels as set forth by HAR, Chapter 11-46.
4. The applicant will review the Department of Health's standard comments and will adhere to comments specifically applicable to this project.

We appreciate the input we received from your office. A copy of the Draft Environmental Assessment (EA) will be provided for your review and comment.

Herbert Matsubayashi  
March 13, 2009  
Page 2

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

F:\DATA\MAI\Kihei\Police\DOH\Maui\clresp.11r.wpd

JUN 30 2008

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

June 27, 2008

Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Attention: Mr. Kyle Ginoza

Dear Mr. Ginoza:

SUBJECT: Early Consultation Request for Proposed Kihei Police Station  
Kihei, Island of Maui, Hawaii; TMK: (2) 2-2-002:070 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 (a) Engineering Division, (b) Division of State Parks, and (c) Commission on Water Resource Management on the subject matter. Should you have any questions, please feel free to call Darlene Nakamura at 587-0417. Thank you.

Sincerely,

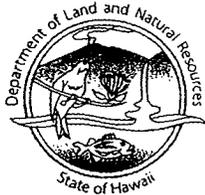
  
Morris M. Atta  
Administrator

Enclosures

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

June 18, 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

RECEIVED  
LAND DIVISION  
2008 JUN 24 A 8:30  
DEPT OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

FROM: *B* Morris M. Atta, Administrator *Chaulana*  
SUBJECT: *B* Early Consultation Request for Proposed Kihei Police Station  
LOCATION: Kihei, Island of Maui; TMK: (2) 2-2-002:070 por.  
APPLICANT: Munekiyo & Hiraga, Inc. for County of Maui

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by June 26, 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 Darlene Nakamura at 587-0417. Thank you.

Attachments

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

Signed: *Cyly*  
Date: 6/23/08

cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LD/MorrisAtta  
Ref.: EarlyConKiheiPoliceStation  
Maui.418

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 based on the map the you provided, the project site according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone C. The National Flood Insurance Program does not have any regulations for developments within Zone C.
- ( ) 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.
  - ( ) 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

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

( ) Other: \_\_\_\_\_

Signed: \_\_\_\_\_

ERIC T. HIRANO, CHIEF ENGINEER

Date: 6/23/06



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINOZA

March 13, 2009

Laura Thielen, Chairperson  
**Department of Land and Natural Resources**  
P. O. Box 621  
Honolulu, Hawai'i 96809

**SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei,  
Maui, Hawai'i**

---

Dear Ms. Thielen:

Thank you for your department's letter dated June 27, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we acknowledge that the project site is located within Flood Zone C and that the National Flood Insurance Program does not have any regulations for developments within Zone C.

We appreciate the input we received from your office. A copy of the Draft Environmental Assessment (EA) will be provided for your review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

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JUL 07 2008

LINDA LINGLE  
GOVERNOR



BRENNON T. MORIOKA  
DIRECTOR

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

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

IN REPLY REFER TO:

STP 8.2914

June 30, 2008

Mr. Kyle Ginoza  
Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:

Subject: Kihei Police Station  
Early Consultation for Draft Environmental Assessment (Draft EA)  
TMK: 2-2-002: 070

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project. DOT's initial comments are as follows:

1. The project will impact the State highway by its contribution of traffic at the Kanani Road/Piilani Highway, intersection.
2. The project's access to Piilani Highway, including roadway, intersection and utility connections should be identified and described in the Draft EA.
3. A traffic assessment or traffic impact analysis report should be prepared and submitted as part of the Draft EA. The traffic report should cover any project contributions to local and regional traffic impacts. Required mitigation measures should also be discussed in the report.
4. No additional storm water runoff will be allowed into the adjoining State highway right-of-way. Drainage from the subject project should be addressed in the Draft EA. Any construction work necessary along or in the right-of-way requires the DOT Highways Division's prior review and approval.
5. The DOT requests that at least four copies of the Draft EA be provided to the DOT Highways Division ATTN: Planning Branch, to permit simultaneous review by the appropriate Highways Division staff.

Mr. Kyle Ginoza  
Page 2  
June 30, 2008

STP 8.2914

The DOT appreciates the courtesy of your early consultation. Additional comments will be provided by the Highways Division following its review of the Draft EA.

Very truly yours,



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

c: Jeffrey Hunt, Maui Planning Department



MICHAEL T. MUNEKIYO  
GWEN DHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINOZA

March 13, 2009

Brennon T. Morioka, P. E., Director  
State of Hawai'i  
Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawai'i 96813

SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei,  
Maui, Hawai'i

Dear Mr. Morioka:

Thank you for your letter dated June 30, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments in the order outlined in your letter.

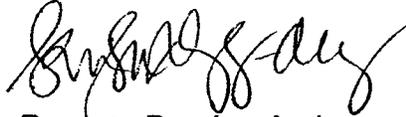
1. We acknowledge that the project will impact a State Highway by its contribution of traffic at the Kanani Road/Pi'ilani Highway intersection. A traffic impact report (TIR) outlining roadway impacts and mitigation measures will be prepared for the project and will be included in the Draft Environmental Assessment (EA).
2. The project's access to Pi'ilani Highway, including roadway, intersection, and utility connections, will be identified and described in the Draft EA.
3. As previously mentioned, a TIR will be prepared for the subject project and will be included in the Draft EA.
4. We acknowledge that no additional storm water runoff will be allowed into the adjoining State highway right-of-way. Further, the project's drainage system will be described in the Draft EA. We acknowledge that any construction work necessary along or in the right-of-way requires the Department of Transportation's Highways Division's prior review and approval.
5. As requested, we will send four (4) copies of the Draft EA to the Highways Division, Planning Branch.

environment  
planning  
government

Brennon T. Morioka, P. E., Director  
March 13, 2009  
Page 2

We appreciate the input we received from your office. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Roweria Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

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JUL 07 2008

LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.  
DIRECTOR OF HEALTH

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

In reply, please refer to  
EMD / CWB

07009PLMUW.08

July 2, 2008

Mr. Kyle Ginoza  
Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Maui, Hawaii 96793

Dear Mr. Ginoza:

**Subject: Response to Request for Early Consultation for the  
Proposed Kihei Police Station  
Kihei, Island of Maui, Hawaii**

The Department of Health (Department), Clean Water Branch (CWB), acknowledges receipt of your letter, dated June 10, 2008, requesting early consultation for the subject project. The Department has reviewed the information provided in your letter 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).

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. Hydrotesting water.
  - c. Construction dewatering effluent.

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 No. 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. Kyle Ginoza  
July 2, 2008  
Page 3

07009PLMUW.08

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 (808) 586-4309.

Sincerely,



ALEC WONG, P.E., CHIEF  
Clean Water Branch

LMUW:np

March 13, 2009

Alec Wong, P.E., Chief  
**Clean Water Branch**  
Department of Health  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814

SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei,  
Maui, Hawai'i

Dear Mr. Wong:

Thank you for your letter dated July 2, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments.

1. The applicant's civil engineer will evaluate potential impacts to State waters to determine whether or not specific sections of Hawai'i Administrative Rules (HAR), Chapter 11-54 are applicable. All discharges related to project construction or operation activities will comply with the relevant State Water Quality Standards. Discharges will be kept at a minimum through the application of engineering Best Management Practices (BMPs).
2. The applicant's civil engineer will contact the Clean Water Branch, as necessary, to address applicable National Pollutant Discharge Elimination System (NPDES) permit and Section 401 Water Quality Certification requirements for the project, including the possible submittal of a Notice of Intent (NOI) for general permit coverage. The NPDES permit application or NOI will also be submitted for review by the State Historic Preservation Division of the Department of Land and Natural Resources.
3. All discharges related to project construction or operation activities will comply with the applicable State Water Quality Standards as specified in HAR, Chapter 11-54 and/or permitting requirements as specified in HAR, Chapter 11-55. Discharges will be kept to a minimum through the application of engineering BMPs.

Alec Wong, P.E., Chief  
March 13, 2009  
Page 2

In addition, the applicant's civil engineer will review the branch's standard comments and will incorporate applicable recommendations into the construction plans.

We appreciate the input we received from your office. A copy of the Draft Environmental Assessment will be provided for your review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

F:\DATA\MAUI\Kihei\Police\DOHC\WB\ecresp.ltr.wpd

JUL 14 2008

LINDA LINGLE  
GOVERNOR



GEORGINA K. KAWAMURA  
DIRECTOR

ROBERT N. E. PIPER  
DEPUTY DIRECTOR

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER  
PUBLIC UTILITIES COMMISSION

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION

July 9, 2008

Mr. Kyle Ginoza, Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:

Your request for comments on the proposed new police station in Kihei, Maui, has been reviewed. In accordance with Chapter 343, HRS, we have no substantive pre-assessment comment to provide.

If you should have any questions regarding this matter, please contact Mr. Neal Miyahira, Administrator of the Budget, Program Planning and Management Division at (808) 586-1530.

Aloha,

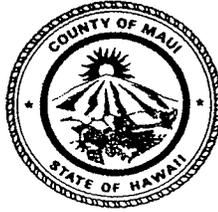
A handwritten signature in black ink, appearing to read "Georgina K. Kawamura". The signature is fluid and cursive.

GEORGINA K. KAWAMURA  
Director of Finance

CHARMAINE TAVARES  
Mayor

CHERYL K. OKUMA, Esq.  
Director

GREGG KRESGE  
Deputy Director



TRACY TAKAMINE, P.E.  
Solid Waste Division

DAVID TAYLOR, P.E.  
Wastewater Reclamation  
Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**

2200 MAIN STREET, SUITE 175  
WAILUKU, MAUI, HAWAII 96793

June 18, 2008

Mr. Kyle Ginoza  
Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

**SUBJECT: KIHEI POLICE STATION  
EARLY CONSULTATION REQUEST  
TMK (2) 2-2-002:070 (POR.), KIHEI**

Dear Mr. Ginoza,

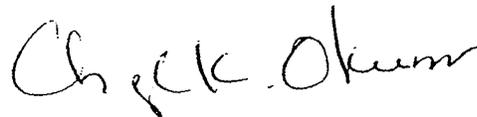
We reviewed the subject project as a pre-application consultation and have the following comments:

1. Solid Waste Division comments:
  - a. Include a plan for construction waste disposal, recycling, reuse.
2. Wastewater Reclamation Division (WWRD) comments:
  - a. Although wastewater system capacity is currently available as of 6/18/2008, 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.
  - d. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
  - e. Show or list minimum slope of new sewer laterals.
  - f. Plans should show the installation of a single service lateral and advanced riser for each lot.

- g. Indicate on the plans the ownership of each easement (in favor of which party). Note: County will not accept sewer easements that traverse private property.
- h. Kitchen facilities within the proposed project shall comply with pre-treatment requirements (including grease interceptors, sample boxes, screens etc.)
- i. 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,

A handwritten signature in black ink that reads "Cheryl Okuma". The signature is written in a cursive, flowing style.

Cheryl Okuma, Director



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINOZA

March 13, 2009

Cheryl Okuma, Director  
County of Maui  
**Department of Environmental Management**  
One Main Plaza  
2200 Main Street, Suite 176  
Wailuku, Hawai'i 96793

**SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei,  
Maui, Hawai'i**

Dear Ms. Okuma:

Thank you for your letter dated June 18, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments.

1. The applicant's civil engineer will develop a plan for construction waste disposal, recycling, and reuse.
2. We acknowledge that wastewater capacity cannot be ensured until the issuance of the building permit.
3. The applicant's civil engineer will prepare wastewater contribution calculations for submittal to the County of Maui. It is noted that wastewater contribution calculations are required before a building permit will be issued.
4. This project is a County facility which qualifies for an exemption from assessment fees for treatment plant expansion costs in accordance with Maui County Code, Section 14.34.090.
5. This project is also exempt from funding necessary offsite improvements to the collection system and wastewater pump stations in accordance with Maui County Code, Section 14.34.090.

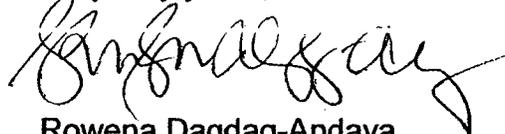
Cheryl Okuma, Director  
March 13, 2009  
Page 2

6. The project plans will show or list the minimum slope of the new sewer lateral.
7. The project plans will show the installation of a single service lateral and advanced riser for the project.
8. The County ownership of sewer easements will be shown on the project plans. It is noted that the County will not accept sewer easements that traverse private property.
9. Kitchen facilities within the proposed project will comply with pre-treatment requirements (including grease interceptors, sample boxes, screens, etc.)
10. Provisions to prevent non-contact cooling water and condensate will be implemented to prevent drainage into the wastewater system.

We appreciate the input we received from your office. A copy of the Draft Environmental Assessment will be provided for your review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

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JUN 25 2008



DEPARTMENT OF  
**HOUSING AND HUMAN CONCERNS**  
COUNTY OF MAUI

CHARMAINE TAVARES  
Mayor

VANESSA A. MEDEIROS  
Director

LORI TSUHAKI  
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165 • EMAIL [director.hhc@mauicounty.gov](mailto:director.hhc@mauicounty.gov)

June 23, 2008

Mr. Kyle Ginoza  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:

**SUBJECT: EARLY CONSULTATION REQUEST FOR  
PROPOSED KIHEI POLICE STATION  
TMK (2) 2-2-002:070(por.)  
KIHEI, MAUI, HAWAII**

We have reviewed your June 10, 2008 early consultation request letter for the subject project and wish to inform you that we do not have any comment to offer.

Thank you for the opportunity to comment.

Sincerely,

  
VANESSA A. MEDEIROS  
Director of Housing and Human Concerns

xc: Housing Division

JUL 07 2008

CHARMAINE TAVARES  
Mayor

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

MICHAEL M. MIYAMOTO  
Deputy Director

Telephone: (808) 270-7845  
Fax: (808) 270-7955



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

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

COUNTY OF MAUI  
**DEPARTMENT OF PUBLIC WORKS**  
200 SOUTH HIGH STREET, ROOM NO. 434  
WAILUKU, MAUI, HAWAII 96793

June 30, 2008

Mr. Kyle Ginoza  
MUNEKIYO & HIRAGA, INC.  
305 High Street, Suite 104  
Wailuku, Maui, Hawaii 96793

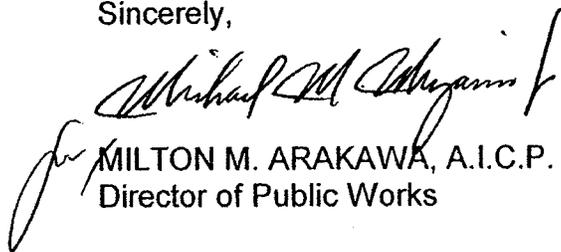
Dear Mr. Ginoza:

**SUBJECT: EARLY CONSULTATION REQUEST FOR THE  
PROPOSED KIHEI POLICE STATION;  
TMK: (2) 2-2-002:070**

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,



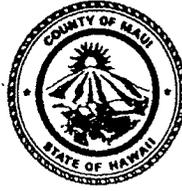
MILTON M. ARAKAWA, A.I.C.P.  
Director of Public Works

MMA:MMM:ls

xc: Highways Division  
Engineering Division

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CHARMAINE TAVARES  
Mayor



8 25 2008  
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

August 21, 2008

Munekiyo & Hiraga  
Attention: Mr. Kyle Ginoza  
305 High Street Suite 104  
Wailuku, HI 96793

Dear Mr. Ginoza:

SUBJECT: Early Consultation Request for Proposed Kihei Police Station,  
TMK (2)2-2-002:070 (por.), Kihei, Maui, Hawaii

After consulting with the Administration, we have reviewed the proposed Kihei Police Station and we have no comments or objections to the subject project.

Thank you for the opportunity to review and comment on this matter. Please feel free to contact me or Mr. Patrick Matsu, Chief of Parks Planning and Development at 270-7387.

Sincerely,

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

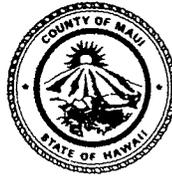
TAMARA HORCAJO  
Director, Parks & Recreation

xc: Patrick Matsui, Chief of Planning & Development

TH:PM:tk

JUL 1 6 2008  
JUL 1 7 2008

CHARMAINE TAVARES  
MAYOR



JEFFREY A. MURRAY  
CHIEF

ROBERT M. SHIMADA  
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

July 9, 2008

Mr. Kyle Ginoza, Project Manager  
Munekiyo & Hiraga, Inc  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

**Subject: Proposed Kihei Police Station, TMK (2)2-2-002:070**

Dear Mr. Ginoza,

At this time, we have no specific concerns regarding the proposed Kihei Police Station Project. A detailed look of the project details will take place by our office during the building permit process.

Please feel free to contact myself if there are any questions or concerns.

Sincerely,

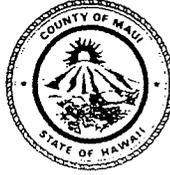
A handwritten signature in black ink, appearing to read "Valeriano F. Martin".

Valeriano F. Martin  
Captain  
Fire Prevention Bureau

CHARMAINE TAVARES  
Mayor

JEFFREY S. HUNT  
Director

COLLEEN M. SUYAMA  
Deputy Director



JUL 17 2008

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

July 17, 2008

Mr. Kyle Ginoza  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:

**SUBJECT: PRE-CONSULTATION COMMENTS IN PREPARATION OF A DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED KIHEI POLICE STATION LOCATED MAUKA OF PIILANI HWY AND KANANI ROAD AT TMK: (2) 2-2-002: 070, KIHEI, MAUI, HAWAII, (EAC 2008/0029)**

The Department of Planning (Department) is in receipt of the above-referenced request for early consultation comments for the Kihei Police Station DEA. The Department understands the proposed action includes the following:

- The applicant is County of Maui Police Department;
- The applicant proposes to develop a two-story building with a total floor area of 46,935 square feet on approximately 10 acres; and
- The Department agrees that use of County lands and funds is a trigger for the preparation of an environmental assessment.

Based on the foregoing, the Department provides the following comments in preparation of the Draft EA:

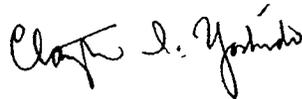
1. The land use designations for the project area are as follows:
  - State Land Use: Agriculture
  - Kihei-Makena Community Plan: Park
  - County Zoning: Agriculture
  - Other: None
2. The Department concurs that the proposed community plan amendment is a "trigger" that requires compliance with Chapter 343, Hawaii Revised Statutes (HRS).

Mr. Kyle Ginoza  
July 17, 2008  
Page 2

3. Discuss the possibility of a Community Plan Amendment to Public/Quasi-Public, which is a land use designation that includes police stations. The current designation of Park is for recreational purposes.
4. Consistency between the State Land Use and Community Plan Designations and the Zoning District will be required, please discuss the plan for compliance.
5. If the police station is to be built on State Agricultural land, a Land Use Commission Special Use Permit or a District Boundary Amendment/Zoning Change will be required.
6. State of Hawaii, Department of Transportation provided written comments (see attached letter).

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Joseph Prutch at [joseph.prutch@mauicounty.gov](mailto:joseph.prutch@mauicounty.gov) or at 270-7512.

Sincerely,



CLAYTON I. YOSHIDA, AICP  
Planning Program Administrator

For: JEFFREY S. HUNT, AICP  
Planning Director

**Attachment**

xc: Joseph M. Prutch, Staff Planner  
2008 EAC File  
General File

JSH:CIY:JMP:bg  
K:\WP\_DOCS\PLANNING\EAC\2008\0029\_KiheiPoliceStation\PreConsultLtr.doc



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINZA

March 13, 2009

Jeffrey S. Hunt, Director  
**Department of Planning**  
250 South High Street  
Wailuku, Hawai'i 96793

**SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei,  
Maui, Hawai'i**

Dear Mr. Hunt:

Thank you for your letter dated July 17, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments.

1. Upon completion of the Environmental Assessment (EA) for the subject project, the applicant will proceed with securing appropriate land use entitlements for project implementation as shown below.

	<i>Current Designation</i>	<i>Proposed Designation</i>
State Land Use	Agricultural	Urban
Kihei-Makena Community Plan	Park	Public/Quasi-Public
Maui County Zoning	Agricultural	Public/Quasi-Public

A discussion on the project's relationship to land use plans, policies, and controls will be contained in the Draft EA.

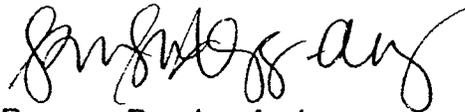
2. A letter from the State Department of Transportation was not attached to your letter, however, we did receive a letter from that agency separately. We will address the comments received from the State Department of Transportation and will include their letter and our response to their letter in the Draft EA.

Jeffrey S. Hunt, Director  
March 13, 2009  
Page 2

We appreciate the input received from your office. A copy of the Draft EA will be provided for your review and comment.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

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JUN 25 2008

Network Engineering and Planning  
OSP Engineering - Maui

Hawaiian Telcom

60 South Church St.  
Wailuku, HI 96793  
Phone 808 242-5102  
Fax 808 242-8899

June 23, 2008

Munekiyo & Hiraga, Inc.  
305 High St., Suite 104  
Wailuku, HI 96793

ATTN: Kyle Ginoza, Project Manager  
SUBJECT: Proposed Kihei Police Station  
TMK: (2)2-2-002:070 (por.)

Dear Kyle,

Thank you for allowing us to review and comment on the Early Consultation Request for the Proposed Kihei Police Station Project. Your plans have been received and put on file.

Hawaiian Telcom, Inc. has no comment, nor do we require any additional information at this time.

We look forward to receiving the Draft EA document. Should you require further assistance, please call Tom Hutchison at 242-5107.

Sincerely,



for Philbert Ferreira  
Section Manager - Network Engineering

PP/TH/SBV

CC: Engineer  
BICS File # 0806-052 (3035)

JUL 07 2008

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461



July 3, 2008

Mr. Kyle Ginoza, Project Manager  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza,

Subject: Proposed Kihei Police Station – Early Consultation Request  
Kanani Road, Kihei, Hawaii 96753  
Tax Map Key: (2) 2-2-002:070 (por.)

Thank you for allowing us to comment on 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. We highly encourage the customer's 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. Please keep us informed as we are in the process of attempting to locate a substation site nearby to meet the current and future demands of the Kihei and Wailea community.

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,

A handwritten signature in black ink that reads "Ray Okazaki". The signature is written in a cursive, flowing style.

Ray Okazaki  
Staff Engineer

Cc: Ray Cibulskis – MECO DSM



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY  
KYLE GINOZA

March 13, 2009

Ray Okazaki, Staff Engineer  
**Maui Electric Company, Ltd.**  
P. O. Box 398  
Kahului, Hawai'i 96733

**SUBJECT: Proposed Kihei Police Station, TMK: (2) 2-2-002:070 (por.), Kihei,  
Maui, Hawai'i**

---

Dear Mr. Okazaki:

Thank you for your letter dated July 3, 2008, providing comments in response to our early consultation request for the subject project.

On behalf of the applicant, the County of Maui, Office of the Mayor, we offer the following responses to your comments.

1. The project's electrical consultant will submit electrical drawings, the projected electrical demand requirements, and a project time schedule, as early as is practical, to facilitate the provision of electrical service.
2. Energy conservation and efficiency opportunities will be considered in the design phase of the development. Coordination with MECO's Demand Side Management Group will be undertaken at that time.

We appreciate the input received from your office. A copy of the Draft Environmental Assessment will be provided for your review and comment.

Ray Okazaki, Staff Engineer  
March 13, 2009  
Page 2

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:tn

cc: Jay Buzianis, Department of Management  
Captain Lawrence Hudson, Maui Police Department  
Aaron Fujii, Mitsunaga & Associates, Inc.

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**IX. LETTER RECEIVED  
DURING THE DRAFT  
ENVIRONMENTAL  
ASSESSMENT REVIEW  
PERIOD; AND RESPONSES  
TO SUBSTANTIVE  
COMMENTS**

# IX. LETTER RECEIVED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD; AND RESPONSES TO SUBSTANTIVE COMMENTS

The following agencies were sent a copy of the Draft Environmental Assessment. Letters received and responses to substantive comments are included in this section.

## FEDERAL AGENCIES

1. Larry Yamamoto, State Conservationist  
**U.S. Department of Agriculture**  
**Natural Resources Conservation Service**  
P.O. Box 50004  
Honolulu, Hawai'i 96850-0001
2. Ranae Ganske-Cerizo,  
Soil Conservationist  
**Natural Resources Conservation Service**  
**U.S. Department of Agriculture**  
700 Hookele Street, Suite 202  
Kahului, Hawai'i 96732
3. George Young  
Chief, Regulatory Branch  
**U.S. Department of the Army**  
U.S. Army Engineer District, Honolulu  
Regulatory Branch  
Building 230  
Fort Shafter, Hawai'i 96858-5440
4. Patrick Leonard  
Field Supervisor  
**U. S. Fish and Wildlife Service**  
300 Ala Moana Blvd., Rm. 3-122  
Box 50088  
Honolulu, Hawai'i 96813

## STATE AGENCIES

5. Russ K. Saito, State Comptroller  
**Department of Accounting and General Services**  
1151 Punchbowl Street, #426  
Honolulu, Hawai'i 96813
  6. Sandra Lee Kunimoto, Chair  
**Department of Agriculture**  
1428 South King Street  
Honolulu, Hawai'i 96814-2512
  7. Theodore E. Liu, Director  
State of Hawai'i  
**Department of Business, Economic Development & Tourism**  
P.O. Box 2359  
Honolulu, Hawai'i 96804
  8. Patricia Hamamoto, Superintendent  
State of Hawai'i  
**Department of Education**  
P.O. Box 2360  
Honolulu, Hawai'i 96804
  9. Heidi Meeker  
Planning Division  
Office of Business Services  
**Department of Education**  
c/o Kalani High School  
4680 Kalaniana'ole Highway, #T-B1A  
Honolulu, Hawai'i 96821
- cc: Bruce Anderson,  
Complex Area Superintendent  
(Central/Upcountry Maui)

10. Micah Kane, Chairman  
**Department of Hawaiian Home Lands**  
P. O. Box 1879  
Honolulu, Hawai'i 96805
11. Chiyome Fukino, M.D., Director  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814
12. Alec Wong, P.E., Acting Chief  
**Clean Water Branch**  
State of Hawai'i  
**Department of Health**  
919 Ala Moana Blvd., Room 300  
Honolulu, Hawai'i 96814
13. Patti Kitkowski, Acting Environmental  
Health Program Chief  
State of Hawai'i  
**Department of Health**  
54 High Street  
Wailuku, Hawai'i 96793
14. Laura Thielen, Chairperson  
State of Hawai'i  
**Department of Land and Natural  
Resources**  
P. O. Box 621  
Honolulu, Hawai'i 96809
15. Dr. Puaalaokalani Aiu, Administrator  
State of Hawai'i  
**Department of Land and Natural  
Resources**  
**State Historic Preservation Division**  
601 Kamokila Blvd., Room 555  
Kapolei, Hawai'i 96707
16. Hinano Rodrigues  
**Maui/Lanai Islands Burial Council**  
130 Mahalani Street  
Wailuku, Hawai'i 96793
17. Brennon Morioka, Director  
State of Hawai'i  
**Department of Transportation**  
869 Punchbowl Street  
Honolulu, Hawai'i 96813
- cc: Fred Cajigal
18. Major General Robert G.S. Lee, Director  
**Hawai'i State Civil Defense**  
3949 Diamond Head Road  
Honolulu, Hawai'i 96816-4495
19. Katherine Kealoha, Director  
**Office Of Environmental Quality  
Control**  
235 S. Beretania Street, Suite 702  
Honolulu, Hawai'i 96813
20. Clyde Namu'o, Administrator  
**Office of Hawaiian Affairs**  
711 Kapiolani Boulevard, Suite 500  
Honolulu, Hawai'i 96813
21. Abbey Seth Mayer, Director  
State of Hawai'i  
**Office of Planning**  
P.O. Box 2359  
Honolulu, Hawai'i 96804
22. Dan Davidson, Executive Officer  
State of Hawai'i  
**State Land Use Commission**  
P.O. Box 2359  
Honolulu, Hawai'i 96804
- COUNTY AGENCIES**
23. Charmaine Tavares, Mayor  
County of Maui  
200 South High Street  
Wailuku, Hawai'i 96793
24. Deidre Tegarden, Director  
County of Maui  
**Office of Economic Development**  
2200 Main Street, Suite 305  
Wailuku, Hawai'i 96793
25. Gen Iinuma, Administrator  
**Maui Civil Defense Agency**  
200 South High Street  
Wailuku, Hawai'i 96793
26. Jeffrey A. Murray, Fire Chief  
County of Maui  
**Department of Fire  
and Public Safety**  
200 Dairy Road  
Kahului, Hawai'i 96732

27. Lori Tshako, Director  
County of Maui  
**Department of Housing and Human Concerns**  
One Main Plaza  
2200 Main Street, Suite 546  
Wailuku, Hawai'i 96793
28. Tamara Horcajo, Director  
County of Maui  
**Department of Parks and Recreation**  
700 Halia Nakoa Street, Unit 2  
Wailuku, Hawai'i 96793
29. Jeffrey Hunt, Director  
County of Maui  
**Department of Planning**  
250 South High Street  
Wailuku, Hawai'i 96793
30. Milton Arakawa, Director  
County of Maui  
**Department of Public Works**  
200 South High Street  
Wailuku, Hawai'i 96793
31. Cheryl Okuma, Director  
County of Maui  
**Department of Environmental Management**  
One Main Plaza  
2200 Main Street, Suite 176  
Wailuku, Hawai'i 96793
32. Donald Medeiros, Director  
County of Maui  
**Department of Transportation**  
200 South High Street  
Wailuku, Hawai'i 96793
33. Jeffrey Eng, Director  
County of Maui  
**Department of Water Supply**  
200 South High Street  
Wailuku, Hawai'i 96793
34. Councilmember Gladys Baisa  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
35. Councilmember Jo Anne Johnson  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
36. Councilmember Sol Kahoohalahala  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
37. Danny Mateo, Council Chair  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
38. Councilmember Bill Medeiros  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
39. Michael J. Molina, Council Vice Chair  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
40. Councilmember Wayne Nishiki  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
41. Councilmember Joseph Pontanilla  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
42. Councilmember Mike Victorino  
**Maui County Council**  
200 South High Street  
Wailuku, Hawai'i 96793
- UTILITIES**
43. **Hawaiian Telcom**  
60 South Church Street  
Wailuku, Hawai'i 96793
44. Greg Kauhi, Manager, Customer Operations  
**Maui Electric Company, Ltd.**  
P.O. Box 398  
Kahului, Hawai'i 96733

**COMMUNITY ORGANIZATIONS**

45. **Kihei Community Association**  
P. O. Box 662  
Kihei, Hawai'i 96753

APR 21 2009



REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT  
FORT SHAFTER, HAWAII 96858-5440

April 17, 2009

Regulatory Branch

File No.: POH-2008-212

Rowena Dagdag-Andaya  
Munekiyo & Hiraga, Inc.  
305 High St., Suite 104  
Wailuku, Hawai'i 96793

Dear Ms. Dagdag-Andaya,

This letter is in response to your request dated April 6, 2009, for our review of the Draft Environmental Assessment (DEA) for the **Proposed Kihei Police Station**. The site is located within TMK 222002070 and at Latitude 20.728°N and Longitude 156.441°W, in Kihei, Maui, Hawai'i.

The semi-arid conditions of the Kihei, Maui coast tend to limit the occurrence and extent of permanent or relatively permanent surface water resources. There are no known perennial streams or adjacent wetlands located within the proposed project area. Based on the information furnished to our office, it appears that the subject parcels consist entirely of uplands, and the proposed project will not involve any activities occurring within navigable waters of the United States (U.S.) or the discharge (placement) of dredged and/ or fill material into jurisdictional waters of the U.S.; therefore, a **Department of Army (DA) permit will not be required**. This determination does not relieve you of any responsibility to obtain any other permits, licenses, or approvals that may be required under County, State, or Federal law for your proposed work.

Thank you for the opportunity to comment. If you have any questions, please contact Ms. Meris Bantilan-Smith, of my Regulatory staff at 808-438-7701 (FAX: 808-438-4060) or by electronic mail at [Meris.Bantilan-Smith@usace.army.mil](mailto:Meris.Bantilan-Smith@usace.army.mil). Please include File No. POH-2008-212 in any future correspondence regarding this project. Please be advised you can provide comments on your experience with the Corps' Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

A handwritten signature in black ink, appearing to read "George P. Young".

George P. Young, P.E.  
Chief, Regulatory Branch



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

George Young, P.E.  
Chief Regulatory Branch  
**Department of the Army**  
U. S. Army Corps of Engineers  
Honolulu District  
Fort Shafter, Hawai'i 96858-5440

**SUBJECT:** Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Mr. Young:

Thank you for your letter dated April 17, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we would like to provide the following comments in response to your letter.

The applicant acknowledges your office's determination that the proposed project will not involve any activities affecting navigable waters of the United States or involve the discharge of material into waters under Corps Jurisdiction. The applicant also acknowledges that the project will not require a Department of the Army (DA) permit. Further, the applicant will comply with other permitting and licensing requirements requiring approvals from County, State, or Federal agencies.

George Young, P.E.  
Chief Regulatory Branch  
June 8, 2009  
Page 2

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject proposal, please call me at (808)244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates Inc.

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APR 20 2009

LINDA LINGLE  
GOVERNOR



RUSS K. SAITO  
COMPTROLLER

BARBARA A. ANNIS  
DEPUTY COMPTROLLER

(P)1122.9

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

APR 17 2009

Ms. Rowena Dagdag-Andaya, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

Subject: Draft Environmental Assessment, Community Plan Amendment  
Change in Zoning, and District Boundary Amendment Applications for  
Proposed Kihei Police Station at  
TMK: (2) 2-2-002:070 (por.) and 069 (por.)  
(DBA 2009/0001); (CIZ 2009/0002); (CPA 2009/0002)  
Kihei, Maui, Hawaii

Thank you for the opportunity to provide comments on the Draft Environmental Assessment, Community Plan Amendment, Change in Zoning, and District Boundary Amendment for the proposed Kihei Police Station project.

This proposed 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 call me at 586-0400 or have your staff call Mr. Clarence Kubo of the Public Works Division at 586-0488.

Sincerely,

RUSS K. SAITO  
State Comptroller

c: Mr. Thomas Phillips, Chief of Police, County of Maui Police Department  
Mr. Jeffrey Hunt, Director, County of Maui Department of Planning

MAY 01 2009

LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M. D.  
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P. H.  
DISTRICT HEALTH OFFICER

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
MAUI DISTRICT HEALTH OFFICE  
54 HIGH STREET  
WAILUKU, MAUI, HAWAII 96793-2102

April 30, 2009

Ms. Rowena Dagdag-Andaya  
Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawai'i 96793

Dear Ms. Dagdag-Andaya:

**Subject: Draft Environmental Assessment, Community Plan Amendment (CPA),  
Change in Zoning (CIZ), and District Boundary Amendment (DBA)  
applications for the proposed Kihei Police Station  
TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i  
DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002**

We have no additional comments to offer other than what was previously stated in our June 27, 2008 letter (see enclosure).

It is strongly recommended that the Standard Comments found at the Department's website: <http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html> be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230 or e-mail me at [patricia.kitkowski@doh.hawaii.gov](mailto:patricia.kitkowski@doh.hawaii.gov).

Sincerely,

A handwritten signature in cursive script that reads "Patti Kitkowski".

Patti Kitkowski  
Acting District Environmental Health Program Chief

Enclosure

c Thomas M. Phillips  
Jeffrey S. Hunt

LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M. D.  
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P. H.  
DISTRICT HEALTH OFFICER

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
MAUI DISTRICT HEALTH OFFICE  
54 HIGH STREET  
WAILUKU, MAUI, HAWAII 96793-2102

June 27, 2008

Mr. Kyle Ginoza  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Ginoza:

Subject: **Early Consultation Request for Proposed Kihei Police Station  
TMK: (2) 2-2-002: 070 (por.)**

Thank you for the opportunity to participate in the early consultation process for the proposed Kihei Police Station. The following comments are offered:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage is required for this project. The Clean Water Branch should be contacted at 808 586-4309.
2. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.
3. HAR, Chapter 11-46 sets maximum allowable sound levels from stationary equipment such as compressors and HVAC equipment. The attenuation of noise from these sources may depend on the location and placement of these types of equipment. This should be taken into consideration during the planning, design, and construction of the building and installation of these types of equipment.

Mr. Kyle Ginoza  
June 27, 2008  
Page 2

It is strongly recommended that the Standard Comments found at the Department's website: <http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html> be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230.

Sincerely,

A handwritten signature in black ink, appearing to be 'H. Matsubayashi', written over a circular stamp or seal.

Herbert S. Matsubayashi  
District Environmental Health Program Chief

c: EPO



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Patti Kitkowski  
State of Hawai'i  
Department of Health  
**Maui District Health Office**  
54 High Street  
Wailuku, Hawai'i 96793

SUBJECT: Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Ms. Kitkowski:

Thank you for your letter dated April 30, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we would like to note that project's architect and civil engineer will review the department's standard comments in addition to the comments presented in your department's June 27, 2008 letter. The applicant confirms that a National Pollutant Discharge Elimination System permit will be sought from the Department of Health for the project. Any additional required permits will be secured prior to the start of construction. The applicant confirms that applicable recommendations will be incorporated into the project's construction plan.

Patti Kitkowski  
June 8, 2009  
Page 2

We appreciate the input received from your office. Should you have any additional comments or require more information regarding the subject proposal, please call me at 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates Inc.

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MAY 05 2009

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 1, 2009

Munekiyo & Hiraga, Inc.  
305 High Street Suite 104  
Wailuku, Hawaii 96793

Attention: Ms. Rowena Dagdag-Andaya, Planner

Ladies and Gentlemen:

Subject: Draft Environmental Assessment for Proposed Kihei Police Station

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, Division of State Parks, 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,

A handwritten signature in cursive script that reads "Morris M. Atta".

Morris M. Atta  
Administrator

52716

LINDA LINGLE  
GOVERNOR OF HAWAII



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

RECEIVED  
LAND DIVISION



STATE OF HAWAII 2009 APR 20 A 10:13  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

April 9, 2009

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 -

DEPT OF LAND &  
NATURAL RESOURCES

09 APR 13 AM 10:03

RECEIVED  
STATE PARKS DIV

FROM: *for* Morris M. Atta *Chalene*  
SUBJECT: Draft environmental assessment for Proposed Kihei Police Station  
LOCATION: Kihei, Maui, TMK: (2) 2-2-2:portion 69 and 70  
APPLICANT: County of Maui, Police Department

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 1, 2009.

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: 4/16/09



RECEIVED  
LAND DIVISION

STATE OF HAWAII 2009 APR 22 A 10:18  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

April 9, 2009

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 -

FROM: *for* Morris M. Atta *Chalene*  
SUBJECT: Draft environmental assessment for Proposed Kihei Police Station  
LOCATION: Kihei, Maui, TMK: (2) 2-2-2:portion 69 and 70  
APPLICANT: County of Maui, Police Department

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 1, 2009.

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: *Cia E. Harris*  
Date: 4/21/09

09 APR 09 10:34S ENGINEERING

**DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION**

**LD/Morris Atta**  
**Ref.: DEA for Proposed Kihei Police Station**  
**Maui.013**

**COMMENTS**

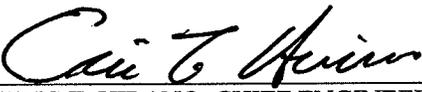
- (X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone C. The National Flood Insurance Program does not have any regulations for developments within Zone C.
- ( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is also 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 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.
  - ( ) 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 Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed:   
ERIC T. HIRANO, CHIEF ENGINEER

Date: 4/21/09

MAY 07 2009

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, 2009

Munekiyo & Hiraga, Inc.  
305 High Street Suite 104  
Wailuku, Hawaii 96793

Attention: Ms. Rowena Dagdag-Andaya, Planner

Ladies and Gentlemen:

Subject: Draft Environmental Assessment for Proposed Kihei Police Station

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 Commission on Water Resource Management 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,

  
for Morris M. Atta  
Administrator



LAURA H. THIELEN  
CHAIRPERSON  
MEREDITH J. CHING  
JAMES A. FRAZIER  
NEAL S. FUJIWARA  
CHIYOME L. FUKINO, M.D.  
DONNA FAY K. KIYOSAKI, P.E.  
LAWRENCE H. MIKE, M.D., J.D.  
KEN C. KAWAHARA, P.E.  
DEPUTY DIRECTOR

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P.O. BOX 621  
HONOLULU, HAWAII 96809

May 5, 2009

REF: Kihei PD Station

TO: Morris Atta, Administrator  
Land Division  
FROM: Ken C. Kawahara, P.E., Deputy Director  
Commission on Water Resource Management  
SUBJECT: Proposed Kihei Police Station DEA  
FILE NO.: NA  
TMK NO.: (2) 2-2-002:069 & 070 (pors)

*Ken C. Kawahara*

DEPT. OF LAND &  
NATURAL RESOURCES  
STATE OF HAWAII

2009 MAY -5 P 3: 27

RECEIVED  
LAND DIVISION

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at <http://www.hawaii.gov/dlnr/cwrm>.

Our comments related to water resources are checked off below.

- 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of fixtures certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense/pp/index.htm>.
- 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <http://hawaii.gov/dbedt/czm/initiative/lid.php>.

- 6. We recommend the use of alternative water sources, wherever practicable.
- 7. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:

Additional information and forms are available at [http://hawaii.gov/dlnr/cwr/resources\\_permits.htm](http://hawaii.gov/dlnr/cwr/resources_permits.htm).

- 8. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water.
- 9. A Well Construction Permit(s) is (are) required any well construction work begins.
- 10. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- 11. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- 12. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- 13. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.
- 14. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.
- 15. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- 16. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

OTHER:

The sources for this use are the multiple well fields in the Iao and Waihee Aquifer and surface water treatment from Na Wai Eha Surface Water Management Area. Ground water sources are at maximum allocation under water use permits, and the surface water availability is imminently constrained by the proposed restoration of stream flows on the order of 34.5 mgd. Maui Department of Water Supply is responsible for water use applications for these sources.

If there are any questions, please contact Charley Ice at 587-0218.

Cl:sd



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Laura Thielen, Chairperson  
State of Hawai'i  
Board of Land and Natural Resources  
**Department of Land and Natural Resources**  
Land Division  
Post Office Box 621  
Honolulu, Hawai'i 96809

**SUBJECT: Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)**

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Dear Ms. Thielen:

Thank you for your department's letters dated May 1, 2009 and May 6, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following responses to your comments.

In response to comments relating to water resources, we would like to note that the applicant has been in consultation with the Department of Water Supply to ensure that water source is adequately and appropriately addressed for the project and to ensure this project is incorporated into the County's Water Use and Development Plan.

Additionally, the applicant has also undertaken coordination with the Department of Water Supply to identify alternative water sources for landscape irrigation and other non-potable water uses and will consult with the Department of Environmental Management staff regarding the potential use of "R-1, Recycled" water. The applicant plans to use water efficient fixtures and implement water efficient practices and conservation measures, where appropriate.

Laura Thielen, Chairperson  
June 8, 2009  
Page 2

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject proposal, please call me at (808)244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates Inc.

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PHONE (808) 594-1888

FAX (808) 594-1865



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

HRD09/3676C

May 1, 2009

Rowena Dagdag-Andaya  
 Munekiyo & Hiraga Inc.  
 305 High Street, Suite 104  
 Wailuku, HI 96793

**RE: Draft Environmental Assessment for the Kihei Police Station, Kihei, Maui, TMK: (2) 2-2-002: por. 070 and por. 069.**

Aloha e Rowena Dagdag-Andaya,

The Office of Hawaiian Affairs (OHA) is in receipt of your April 6, 2009, letter requesting comments on the above-mentioned project. Maui County proposes the development of a new police station on 10 acres of undeveloped, vacant land in Kihei, Maui. The project would require submitting applications to the State Land Use Commission and the County of Maui change to the "agricultural" designation of the project site to allow for the construction of the police station. OHA has reviewed the project and offers the following comments.

We will rely 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. In addition, OHA recommends that the applicant use native vegetation in its landscaping plan for the subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place.

Thank you for the opportunity to comment. If you have further questions, please contact Sterling Wong by phone at (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

Rowena Dagdag-Andaya  
May 1, 2009  
Page 2

C: OHA Maui CRC Office

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

Jeffrey Hunt, Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, HI 96793



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Clyde W. Nāmu`o  
State of Hawai`i  
**Office of Hawaiian Affairs**  
711 Kapi`olani Boulevard, Suite 500  
Honolulu, Hawai`i 96813

**SUBJECT:** Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai`i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Mr. Nāmu`o:

Thank you for your letter dated April 24, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following responses to your comments.

1. The applicant confirms that work at the project site will cease in the event that iwi Kūpuna or Native Hawaiian cultural or traditional deposits are encountered during construction or ground altering activities. Appropriate agencies will be contacted to, establish appropriate mitigation measures in accordance with Chapter 6E, Hawai`i Revised Statutes.
2. We acknowledge your recommendation to incorporate native plants into the landscaping design of the completed project. A copy of your letter was forwarded to the landscape architect for the consideration of the use of native plants within the project site.

Clyde W. Nāmu`o  
June 8, 2009  
Page 2

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject proposal, please call me at (808)244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Jonelle Oshiro, Landscape Architect  
Aaron Fujii, Mitsunaga & Associates Inc.

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LINDA LINGLE  
GOVERNOR

MAJOR GENERAL ROBERT G. F. LEE  
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA  
VICE DIRECTOR OF CIVIL DEFENSE



PHONE (808) 733-4300  
FAX (808) 733-4287

**STATE OF HAWAII**  
**DEPARTMENT OF DEFENSE**  
**OFFICE OF THE DIRECTOR OF CIVIL DEFENSE**  
3949 DIAMOND HEAD ROAD  
HONOLULU, HAWAII 96816-4495

May 4, 2009

Ms. Rowena Dagdag-Andaya, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

Draft Environmental Assessment, Community Plan Amendment, Change in Zoning  
Proposed Kihei Police Station, Kihei, Maui, Hawaii

Thank you for the opportunity to comment on this development. After careful review of the documents for this project, we have no comments or suggestions to make.

If you have any questions, please call Mr. Richard Stercho, Hazard Mitigation Planner, at (808) 733-4300, ext. 583.

Sincerely,

EDWARD T. TEIXEIRA  
Vice Director of Civil Defense

- c: Chief Thomas Phillips, County of Maui, Police Department
- Jeffrey Hunt, Department of Planning
- Captain Lawrence Hudson, Maui Police Department
- Jay Buzianis, County of Maui, Department of Management
- Chad McDonald, Mitsunaga & Associates, Inc.



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

LINDA LINGLE  
GOVERNOR  
THEODORE E. LIU  
DIRECTOR  
MARK K. ANDERSON  
DEPUTY DIRECTOR  
ABBEY SETH MAYER  
DIRECTOR  
OFFICE OF PLANNING

**OFFICE OF PLANNING**

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846  
Fax: (808) 587-2824

Ref. No. P-12547

May 5, 2009

Mr. Jeffrey S. Hunt, Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

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

Dear Mr. Hunt and Chief Phillips:

**Subject:** Draft Environmental Assessment (DEA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) applications for the Proposed Kihei Police Station (DBA 2009/0001); (CIZ 2009/0002); (CPA 2009/0002) TMK (2) 2-2-002: 070 (por.) and 069 (por.), Kihei, Maui, Hawaii

The DEA for the Proposed Kihei Police Station indicates that the new Police Station is proposed to be situated on a 10-acre site owned by the County of Maui, and Haleakala Ranch Company, within a new two-story building with a total floor area of 46,934 square feet. According to the DEA, the site is designated Park and Agriculture on the Kihei-Makena Community Plan, and zoned Agricultural. Access will be from Pi'ilani Highway. The site is within the State Agricultural District.

The project site is currently vacant and was previously used for cattle grazing. The site is Unclassified according to the Agricultural Lands of Importance to the State of Hawaii, and designated E under the Land Study Bureau Overall Productivity Rating System. We note that there is an Archaeological Inventory Survey report, and a Cultural Impact Assessment document attached to the DEA. The State Historic Preservation Division has indicated by letter, Appendix C-1 that the study received final acceptance, and that no further archaeological work is needed for the site.

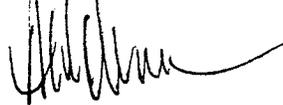
The DEA concluded that examination of alternative locations in the Kihei area produced no appropriately zoned vacant public lands large enough to accommodate the proposed police station and the options were limited to vacant agricultural lands.

Mr. Jeffrey Hunt  
May 5, 2009  
Page 2

We have no objections to the DBA if the subject property is changed to "Public/Quasi-Public" on the Kihei-Makena Community Plan.

Thank you for the opportunity to comment. Should you have any questions, please call Lorene Maki of the Land Use Division at 587-2888.

Sincerely,

A handwritten signature in black ink, appearing to read "Abbey Seth Mayer", with a long horizontal flourish extending to the right.

Abbey Seth Mayer  
Director

c: Rowena Dagdag-Andaya, Munekiyo & Hiraga, Inc.  
Sandra Kunimoto, Dept. of Agriculture  
Orlando Davidson, Land Use Commission  
Theodore E. Liu, DBEDT



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Abbey Seth Mayer, Director  
State of Hawaii  
Department of Business, Economic  
Development and Tourism  
Office of Planning  
P. O. Box 2359  
Honolulu, Hawai'i 96804

SUBJECT: Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Mr. Mayer:

We are writing to you on behalf of the applicant, the County of Maui, Maui Police Department to thank you for your letter dated May 5, 2009, regarding the Draft Environmental Assessment for the proposed project. We appreciate the input we received from your office.

Should you have any additional comments or require more information regarding the subject proposal, please call me at (808) 244-2015.

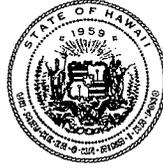
Very truly yours,

Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates Inc.

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

OFFICE OF THE SUPERINTENDENT

May 5, 2009

Ms. Rowena Dagdag-Andaya, Planner  
Munekiyo & Hiraga Inc.  
305 High Street, Suite 104  
Wailuku, Hawai'i 96793

Dear Ms. Dagdag-Andaya:

Subject: Draft Environmental Assessment for a Kihei Police Station  
Kihei, Maui TMK: 2-2-002: por. 70, por. 69.

The Department of Education has no comment or concern with plans to build a police station in Kihei, Maui.

Thank you for the opportunity to comment. If you have any questions, please call Heidi Meeker of the Facilities Development Branch at (808) 377-8301.

Very truly yours,

A handwritten signature in cursive script that reads "Patricia Hamamoto".

Patricia Hamamoto  
Superintendent

PH:jmb

c: Randolph Moore, Assistant Superintendent, OSFSS  
Bruce Anderson, CAS, Baldwin/Kekaulike/Maui Complex Areas  
The Honorable Thomas Phillips, Chief of Police, County of Maui  
Jeffrey Hunt, County of Maui, Planning Department

MAY 07 2009

LINDA LING, ʻE  
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.  
DIRECTOR OF HEALTH

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

In reply, please refer to:  
EMD / CWB

05026PMT.09

May 6, 2009

Ms. Rowena Dagdag-Andaya  
Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

**Subject: Draft Environmental Assessment for the  
Proposed Community Plan Amendment, Change in Zoning, and District  
Boundary Amendment applications for the Kihei Police Station  
TMK: (2) 2-02-002:070 (por.) and 069 (por.)  
Kihei, Island of Maui, Hawaii**

The Department of Health, Clean Water Branch (CWB), has reviewed your letter dated April 6, 2009, regarding the subject project and offers these comments. Please note that our review is based solely on the information provided in your letter for the subject project 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. The Kamae Beach ocean waters is identified as a Low Priority, Category 5 waters in the Clean Water Act, Section 303(d) list of impaired water bodies in Chapter IV of the *2006 State of Hawaii Water Quality Monitoring and Assessment Report*. Priority 5 waters are described as surface waters where available data and/or information indicate that at least one (1) designated use is not being supported or is threatened. The Kamae Beach ocean water is identified as possibly not attaining the applicable water quality criteria for total nitrogen, nitrate + nitrite, total phosphorus, turbidity, and chlorophyll *a*. Accordingly, the subject DEIS should include considerations toward ensuring the protection and improvement of this water body in, but not limited to, the Physical Environment and Infrastructure-Drainage System sections of the document.

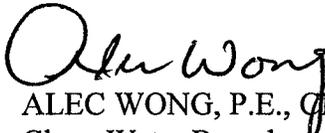
Ms. Rowena Dagdag-Andaya  
May 6, 2009  
Page 2

05026PMT.09

2. The CWB also continues the comments previously transmitted to you by letter (07009PLMUW.08) dated July 2, 2008, as applicable.

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 (808) 586-4309.

Sincerely,

  
ALEC WONG, P.E., CHIEF  
Clean Water Branch

MT:np



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Alec Wong, P.E. Chief  
State of Hawai'i  
Department of Health  
**Clean Water Branch**  
P. O. Box 3378  
Honolulu, Hawai'i 96801-3378

**SUBJECT: Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)**

Dear Mr. Wong:

Thank you for your letter dated May 6, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following responses to your comments. The applicant's civil engineer has received a copy of your letter and will review the branch's standard comments in addition to the comments presented in your department's earlier July 2, 2008 comment letter. The applicant confirms that applicable recommendations will be incorporated into the project's construction plan.

In response to your comment relating to the protection and improvement of the Kamaole Beach ocean water, we would like to note that Chapter 2, Part D, Section 4, "Drainage System" of the Draft Environmental Assessment (EA) indicates that the proposed drainage improvements will involve the development of an onsite detention basin designed to capture all runoff generated at the project site. The project will result in an increase in peak flow of approximately 15.03 cubic feet per second. While a 750 cubic yard (c.y.) detention basin is adequate to accommodate the runoff generated from the project, a 1,000 c.y. detention basin will be constructed at the northern portion of the site to provide excess capacity than the anticipated volume increase, and allow the increased runoff to slowly percolate into the ground below. Additional, runoff will be filtered before entering the retention basin.

Additionally, the onsite drainage measures will be developed to conform to the "Rules for the Design of Storm Drainage Facilities in the County of Maui", to ensure the reduction of sediments contained in the runoff from entering the ocean. With the implementation of the

Alec Wong, P.E. Chief  
June 8, 2009  
Page 2

proposed drainage improvements, the proposed project is not anticipated to result in significant drainage impacts to adjacent or downstream properties.

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject proposal, please call me at (808) 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates Inc.

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MAY 19 2009

LINDA LINGLE  
GOVERNOR



BRENNON T. MORIOKA  
DIRECTOR

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

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

IN REPLY REFER TO:

STP 8.3256

May 15, 2009

Ms. Rowena Dagdag-Andaya, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

Subject: Kihei Police Station  
Draft Environmental Assessment (DEA),  
Community Plan Amendment (CPA),  
Change in Zoning (CIZ), and  
District Boundary Amendment (DBA) Applications

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project.

DOT understands that the subject project involves the development of a ten-acre site to include the construction of a two-story building with a total floor area of 46,934 square feet, 177 standard and 7 accessible parking stalls for staff and visitors. Access to the project would be provided via a new access road off Piilani Highway at Kanani Road.

The project will impact traffic on the State highway, Piilani Highway. The DOT Highways Division Planning Branch is concluding its review of the subject project, and will provide supplemental comments as soon as its evaluation is completed. The Planning Branch may be contacted at telephone number (808) 587-1830.

DOT appreciates the opportunity to provide comments. If there are any other questions, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at (808) 587-2356.

Very truly yours,

A handwritten signature in black ink, appearing to be "BM", written over a horizontal line.

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



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Brennon T. Morioka, Director  
State of Hawaii  
Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawai'i 96813-5097

SUBJECT: Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Mr. Morioka:

Thank you for your letter dated May 15, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we acknowledge that the State Department of Transportation (DOT) Highways Division Planning Branch is concluding its review of the subject project and will provide comments on the project. DOT comments on the project can be incorporated during the CPA, CIZ, and DBA application review.

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject project, please call me at (808) 244-2015.

Very truly yours,

Rowena Dagdag-Andaya  
Planner

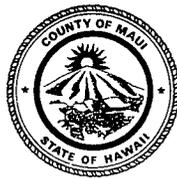
RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Aaron Fujii, Mitsunaga & Associates Inc.  
Pete Pascua, Wilson Okamoto Corporation

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APR 21 2009

CHARMAINE TAVARES  
MAYOR



DON A. MEDEIROS  
Director  
WAYNE A. BOTEILHO  
Deputy Director  
Telephone (808) 270-7511  
Facsimile (808) 270-7505

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI  
200 South High Street  
Wailuku, Hawaii, USA 96793-2155

April 15, 2009

Mrs. Rowena Dagdag-Andaya  
Munekiyo & Hiraga Inc.  
305 High Street, Suite 104  
Wailuku, Maui, Hawaii 96793

Subject: Request for Proposed Kihei Police Station

Dear Mrs. Dagdag-Andaya,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Medeiros", is written over a faint, illegible stamp.

Don Medeiros  
Director

Director of Council Services  
Ken Fukuoka

Council Chair  
Danny A. Mateo

Vice-Chair  
Michael J. Molina

Council Members  
Gladys C. Baisa  
Jo Anne Johnson  
Sol P. Kaho'ohalahala  
Bill Kauakea Medeiros  
Wayne K. Nishiki  
Joseph Pontanilla  
Michael P. Victorino



**COUNTY COUNCIL**  
COUNTY OF MAUI  
200 S. HIGH STREET  
WAILUKU, MAUI, HAWAII 96793  
[www.mauicounty.gov/council](http://www.mauicounty.gov/council)

April 17, 2009

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

Jeffrey Hunt, Director  
Department of Planning  
250 South High Street  
Wailuku, HI 96793

**SUBJECT: Draft Environmental Assessment for Proposed Kihei Police Station  
Kihei, Maui, Hawaii TMK No.(2) 2-2-002:070 (por.) and 069 (por.)**

Dear Chief Phillips and Director Hunt:

Thank you for the opportunity to provide comments on the Draft Environmental Assessment for the proposed Kihei Police Station.

After review of the draft assessment, I have no comments at the present time.

Sincerely,

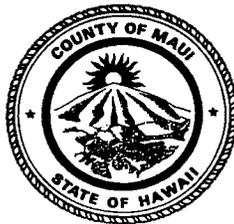
JOSEPH PONTANILLA,  
COUNCIL MEMBER

Cc: Rowena Dagdag-Andaya, Munekiyo & Hiraga, Inc.

CHARMAINE TAVARES  
Mayor

CHERYL K. OKUMA, Esq.  
Director

GREGG KRESGE  
Deputy Director



TRACY TAKAMINE, P.E.  
Solid Waste Division

DAVID TAYLOR, P.E.  
Wastewater Reclamation  
Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**

2200 MAIN STREET, SUITE 100  
WAILUKU, MAUI, HAWAII 96793

April 24, 2009

Ms. Gwen Ohashi Hiraga  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

**SUBJECT: KIHEI POLICE STATION  
DRAFT ENVIRONMENTAL ASSESSMENT,  
DBA 2009/0001, CIZ 2009/0002, AND CPA 2009/0002  
TMK (2) 2-2-002:070 (POR.) AND 069 (POR.), KIHEI**

We reviewed the subject application and have the following comments:

1. Solid Waste Division comments:
  - a. None.
2. Wastewater Reclamation Division (WWRD) comments:
  - a. Although wastewater system capacity is currently available as of 4/24/2009, 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 is required to fund any necessary off-site improvements to collection system and wastewater pump stations. All proposed wastewater system improvements shall comply with County wastewater standards.
  - d. Show or list minimum slope of new sewer laterals.
  - e. Plans should show the installation of a single service lateral and a property service manhole near the property line.
  - f. Indicate on the plans the ownership of each easement (in favor of which party). Note: County will not accept sewer easements that traverse private property.
  - g. Non-contact cooling water and condensate should not drain to the wastewater system.

Ms. Gwen Ohashi Hiraga  
April 24, 2009  
Page 2

- h. Since the subject project is a County of Maui project, we concur that the wastewater assessment fees are exempt in accordance with Maui County Code, Section 14.34.090.
- i. Maui County Code, Section 14.34.090 refers to exemptions from applicable wastewater assessment fees for the expansion of the Kihei Wastewater Treatment Plant and the upgrade/expansion of the Kihei wastewater transmission system. It does not refer to exemptions of development and construction costs. Although this is a County of Maui project, any development and construction costs will need to be funded by the developer. This includes any necessary off-site improvements to the collection system and wastewater pump stations.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

  
Cheryl K. Okuma, Director



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Cheryl Okuma, Director  
County of Maui  
**Department of Environmental Management**  
2200 Main Street, Suite 100  
Wailuku, Hawai'i 96793

**SUBJECT:** Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Ms. Okuma:

Thank you for your letter dated April 24, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following responses to your comments in your letters dated April 24, 2009 and June 18, 2008.

1. We acknowledge that wastewater capacity cannot be ensured until the issuance of the building permit.
2. The applicant's civil engineer will prepare wastewater contribution calculations for submittal to the County of Maui. It is noted that wastewater contribution calculations are required before a building permit will be issued.
3. The applicant confirms that the proposed project may be subject to funding any necessary off-site improvements to the collection system and the wastewater pump stations, and that these improvements shall comply with County wastewater standards.
4. The project plans will show and list the minimum slope of the new sewer laterals.
5. The project plans will show the installation of a single service lateral and advanced riser for the project.

Cheryl Okuma, Director  
June 8, 2009  
Page 2

6. The County ownership of sewer easements will be shown on the project plans. It is noted that the County will not accept sewer easements that traverse private property.
7. Provisions to prevent non-contact cooling water and condensate will be implemented to prevent drainage into the wastewater system.
8. The applicant acknowledges your comment that any necessary off-site improvements to the collection system and wastewater pump stations will be subject to applicable assessment fees.

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject proposal, please call me at 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates, Inc.

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MAY 04 2009

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

CARY YAMASHITA, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division



CHARMAINE TAVARES  
Mayor

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

MICHAEL M. MIYAMOTO  
Deputy Director

Telephone: (808) 270-7845  
Fax: (808) 270-7955

COUNTY OF MAUI  
**DEPARTMENT OF PUBLIC WORKS**  
200 SOUTH HIGH STREET, ROOM NO. 434  
WAILUKU, MAUI, HAWAII 96793

April 29, 2009

Ms. Rowena Dagdag-Andaya  
MUNEKIYO & HIRAGA, INC.  
305 High Street, Suite 104  
Wailuku, Maui, Hawaii 96793

Dear Ms. Dagdag-Andaya:

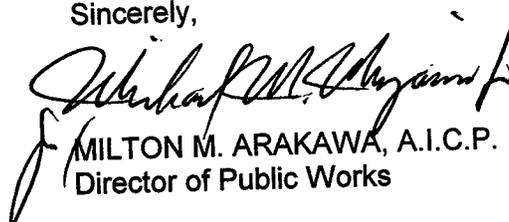
**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT AND  
APPLICATIONS FOR COMMUNITY PLAN AMENDMENT,  
CHANGE IN ZONING AND DISTRICT BOUNDARY  
AMENDMENT FOR PROPOSED KIHEI POLICE STATION  
TMK (2) 2-2-002:070  
CPA 2009/0002; CIZ 2009/0002; DBA 2009/0001**

We reviewed the subject application and have the following comments:

1. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations.
2. As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.
3. Worksite traffic-control plans/devices shall conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.

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

MMA:MMM:ls

xc: Highways Division  
Engineering Division

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MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

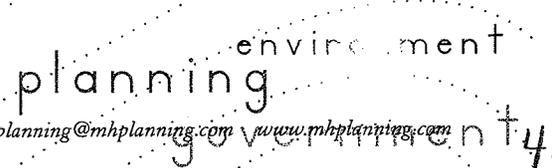
Milton Arakawa, Director  
County of Maui  
**Department of Public Works**  
200 South High Street, Room No. 434  
Wailuku, Hawai'i 96793

**SUBJECT:** Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Mr. Arakawa:

Thank you for your letter dated April 29, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following responses to your comments.

The applicant and its civil engineer will coordinate with applicable agencies to ensure compliance with Hawai'i Revised Statutes, Maui County Code, and other applicable rules and regulations. This includes the Hawai'i Standard Specifications for Road and Bridge Construction dated 2005, the Standards Details for Public Works Construction 1984, as amended, and the Manual on Uniform Traffic Control Devices for Streets and Highways, 2003, as applicable.



Milton Arakawa, Director  
June 8, 2009  
Page 2

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject proposal, please call me at 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

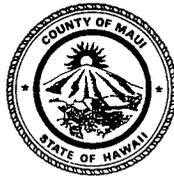
cc: Jeffrey Hunt, County of Maui, Department of Planning  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates, Inc.

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CHARMAINE TAVARES  
Mayor

JEFFREY S. HUNT  
Director

KATHLEEN ROSS AOKI  
Deputy Director



MAY - 5 2009

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

May 4, 2009

Ms. Rowena Dagdag-Andaya  
Munekiyo and Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

**SUBJECT: COMMENTS UPON A DRAFT ENVIRONMENTAL ASSESSMENT (DEA) PREPARED IN SUPPORT OF APPLICATIONS FOR A STATE LAND USE DISTRICT BOUNDARY AMENDMENT (DBA), COMMUNITY PLAN AMENDMENT (CPA) AND CHANGE IN ZONING (CIZ) FOR THE PROPOSED KIHEI POLICE STATION LOCATED AT KIHEI, ISLAND OF MAUI, HAWAII; TMK: (2) 2-2-002:070 (POR.) AND 069 (POR.) (CPA 2009/0002) (DBA 2009/0001) (CIZ 2009/0002) (EAC 2008/0029)**

At its regular meeting on April 14, 2009, the Maui Planning Commission reviewed the above-referenced document for the proposed Kihei Police Station (the project) and provides the following comments:

1. Please employ energy efficient features in the project design where possible;
2. Discuss the possibility of obtaining LEEDS certification for the project;
3. Are panels possible to be utilized on the roof to provide energy for the building and as heat absorption for the building roof;
4. Please pursue a project design which will facilitate the station being open to the community, which will help the station and police operations to be better integrated into the community;
5. In line with the prior comment, please consider expansion of the multi-purpose room adjacent to lobby and making it available for the public's use;
6. Please identify the land uses anticipated to adjoin the site of the station in the future;
7. Please use permeable surfaces in the parking areas as much as possible;
8. Is the building anticipated to serve as a FEMA evacuation site in the event of a future disaster;

Ms. Rowena Dagdag-Andaya  
May 4, 2009  
Page 2

9. Please provide more detail in the tables shown on Pages 37 and 38 pertaining to water usage and wastewater demand;
10. Please provide an analysis of the impact of the project on the view plane from Piilani Highway so as to identify the extent to which the public view of Haleakala will be blocked by the proposed building; and
11. If chain link fencing is to be used, please screen such fencing with landscaping or other means.

The Maui Planning Commission appreciates the opportunity to comment and also appreciates your anticipated responsiveness to the above comments. Should you have any questions about the comments in this letter, please feel free to contact Current Planning Supervisor Jeffrey Dack, AICP, by e-mail at [jeffrey.dack@mauicounty.gov](mailto:jeffrey.dack@mauicounty.gov) or by phone at 270-6275.

Sincerely,



JEFFREY S. HUNT, AICP  
Planning Director

xc: Clayton I. Yoshida, AICP, Planning Program Administrator  
Jeffrey P. Dack, AICP, Staff Planner  
Thomas Phillips, Chief of Police  
Project File  
General File

JSH:JPD:sjc

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MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Jeffrey S. Hunt, Director  
County of Maui  
**Department of Planning**  
250 South High Street  
Wailuku, Hawai'i 96793

**SUBJECT:** Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Mr. Hunt:

We are writing to you on behalf of the applicant, the County of Maui, Maui Police Department to thank you for your Department's letter dated May 4, 2009 on behalf of the Maui Planning Commission commenting on the Draft Environmental Assessment for the proposed project. We appreciate the input we received from the board. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following responses to your comments.

1. With regards to the use of energy saving devices and systems within the proposed police station building, the applicant notes that an energy management system for operation and maintenance will be implemented to reduce electrical demand and promote high energy efficiency.

Preliminarily, the project architect has identified sustainable design strategies that result in energy savings and reduction of energy costs. Such strategies involve the use of energy efficient light fixtures, occupancy sensors for lighting, Variable Air Volume cooling, and direct digital controls to monitor and control air conditioning, ventilation, and plumbing system.

A copy of the Commission's comments has been forwarded to the project architect for further consideration of a photovoltaic power system and other options for promoting energy efficiency and reduction on the dependence of electricity.

2. US Green Building Council (USGBC) (creators of LEED) created an accepted benchmark within the design/construction industry which defines sustainability for buildings. It is our understanding that the project will not pursue LEED Certification; however efforts will be made to incorporate strategies developed by the USGBC and integrate measures in designing a high performance building.
3. The project architect noted that photovoltaic panels are considered an option for providing energy for the building. A copy of your letter has been forwarded to the project architect for further consideration of a photovoltaic power system and other options for promoting energy efficiency and reduction on the dependence of electricity.
4. The applicant and the project architect have consulted with community members and organizations with regards to the design of the facility and to gain input on how its design would be better integrated into the community. While the proposed design provides members of the public an accessible entry lobby and multi-purpose room on the ground level, it should be noted that the proposed Kihei Police Station has also been designed to accommodate the functional aspects of the Kihei police district which require specific security and safety measures for other parts of the building.
5. As stated previously, the multi-purpose room located on the ground level of the proposed police station will be made accessible to the public for appropriate functions, events, and meetings.
6. The County of Maui, Department of Management indicates that at the current time, there are no plans identified for the remainder of the subject property. Land use plans for area surrounding the property have also not been determined at this time.
7. The project architect confirms that permeable surface will be utilized in the parking areas to the extent possible.
8. The proposed police station will also be designed to provide protection during storm and hurricane-like storm conditions, is located outside of the tsunami inundation area and in an area of minimal flooding. The applicant notes that public evacuation shelters on the island of Maui are generally facilities such as schools that have adequate areas and restroom facilities for sheltering large numbers of people.

In the event of a disaster, the proposed police station facility will serve as a command post and a staging area for police personnel.

9. The tables pertaining to water usage and wastewater demand in Chapter 2, Part D Infrastructure, Section 2, Water System, has been revised in the Final Environmental Assessment.
10. A photographic analysis on the impact of the project on public views to Haleakala has been included in the Final EA. Chapter 2, Part A Physical Environment, Section 11 Scenic and Open Space Resources, has been revised to state the following:

**The subject property is not considered a valuable scenic corridor. The proposed building height in combination with the topography of the site and its view relationship with Haleakala from the intersection of Pi'ilani Highway and Kanani Road was assessed.**

**Mitigating measures to be implemented to ensure the preservation of views from Pi'ilani Highway and Kanani Road include the provision of an approximately 20-foot building setback from the property line. While the proposed building height is approximately 44 feet, the building will be positioned in a northwest-southeast direction to minimize view impacts mauka of the highway. With these parameters, a photographic analysis has been prepared to graphically represent the grade and building height relationship from Pi'ilani Highway. See Figure 13. Based on this analysis, there are no view plane interferences issues anticipated with the proposed action.**

11. A copy of your letter has been forwarded to the project's landscape architect regarding the screening of chainlink fencing with landscaping of other materials.

Jeffrey S. Hunt, Director  
June 8, 2009  
Page 4

We would like to thank the Maui Planning Commission for offering comments to the subject Draft EA. Should you have any additional comments or require more information regarding the subject project, please call me at 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates, Inc.  
Jonelle Oshiro, Landscape Architect

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CHARMAINE TAVARES  
Mayor  
JEFFREY S. HUNT  
Director  
KATHLEEN ROSS AOKI  
Deputy Director



COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

May 8, 2009

Ms. Rowena Dagdag-Andaya  
Munekyo & Hiraqa, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

**SUBJECT: PROPOSED KIHEI POLICE STATION LOCATED AT KIHEI,  
ISLAND OF MAUI, HAWAII; TMK: (2) 2-2-002:070 (POR.) AND 069  
(POR.) (CPA 2009/0002) (DBA 2009/0001) (CIZ 2009/0002)  
(EAC 2008/0029)**

At its regular meeting on May 5, 2009, the Maui Urban Design Review Board (UDRB) reviewed the design, preliminary landscaping, architectural plans, and related aspects of the proposed project referenced above. Among comments by the UDRB was that the project and its building have the potential to be a showcase and enhance the South Maui community. Based upon those considerations within the UDRB purview and comments during the meeting, it voted to recommend approval of the project design with the following recommendations:

1. The project should employ a wall finish which is different from that used on the main Police Station building in Kahului;
2. Soften the visual image of the elevation;
3. Monkeypod trees should be planted on the area of the site adjoining the Pillani Highway right-of-way. Further, meet with the State Department of Transportation to explore the extension of project planted vegetation makai onto and within the Pillani Highway right-of-way.
4. Reach out to the community in planning the design and use of the facility. One possible means to accomplish this would be requesting the review of project plans by the Kihei Community Association, with results of such review and any other community outreach reported to the Department of Planning;
5. The project should employ low water use landscaping;
6. The project should employ energy saving devices and systems to the extent permissible within the project budget. One possible means to achieve this which should be explored is the use of less costly roofing material, with the cost saving to be devoted to a photovoltaic power system; and

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793  
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634  
CURRENT DIVISION (808) 270-8235; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

Ms. Rowena Dagdag-Andaya  
May 8, 2009  
Page 2

7. To the extent practicable, employ principles and standards the same or similar to those used during consideration of a project for certification under the LEED (Leadership in Energy and Environmental Design) Green Building Rating System.

The UDRB respectfully recommends its decision be incorporated into future deliberations on this application.

If additional clarification is required, please contact the undersigned or Current Planning Supervisor Jeffrey Dack by email at [jeffrey.dack@mauicounty.gov](mailto:jeffrey.dack@mauicounty.gov) or by phone at 270-6275.

Sincerely,

for ANTHONY RIECKE-GONZALES, Chair  
Maui Urban Design Review Board

cc: Clayton I. Yoshida, AICP, Planning Program Administrator  
Jeffrey P. Dack, AICP, Current Planning Supervisor  
Thomas Phillips, Chief of Police  
Maui Planning Commission  
Project File  
General File

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MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Jeffrey S. Hunt, Director  
County of Maui  
**Department of Planning**  
250 South High Street  
Wailuku, Hawai'i 96793

**SUBJECT: Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)**

Dear Mr. Hunt:

We are writing to you on behalf of the applicant, the County of Maui, Maui Police Department to thank you for your Department's letter dated May 8, 2009 on behalf of the Urban Design Review Board commenting on the Draft Environmental Assessment for the proposed project. We appreciate the input we received from the board. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following responses to your comments.

1. The Applicant notes your comment regarding the use of a wall finish. Although final plans have not been made regarding the use of exterior materials of the building, the Applicant confirms that the wall finish used for the proposed Kihei Police station will be that of a plaster finish which will differ from the one currently used at the Maui Police Station building in Wailuku.
2. The Applicant acknowledges your comment regarding the softening of the building elevation. Development improvements which include landscaping will be incorporated to ensure visual buffering and softening of the built landscape. A copy of your letter has been provided to the project architect and landscape architect for consideration of other improvements that can be made to soften the visual image of the elevation.
3. A discussion with Ferdinand Cajigal of the State Department of Transportation (DOT), Maui District was held on June 1, 2009 regarding the planting of Monkeypod trees and planted vegetation in the Pi'ilani Highway Right-of-Way. Additional

coordination between the Applicant and the State DOT will be undertaken to explore opportunities and limitations regarding the development of a landscape plan along the project boundary within the Pi'ilani Highway Right-of-Way.

4. Meetings with the Kihei Community Association and other interested parties were held during the preliminary planning phases of the project. The Applicant acknowledges your comment regarding community outreach efforts in the review of project plans for the proposed police station. The applicant confirms that a meeting will be requested with the Kihei Community Association during the review of the Community Plan Amendment, Change in Zoning, and District Boundary Amendment application review.
5. To eliminate dependence on potable water resources, the applicant will pursue the availability and use of non-potable water in the region for landscape irrigation and other uses. In addition, drought tolerant and native vegetation will be utilized in the landscape plan.
6. With regards to the use of energy saving devices and systems within the proposed police station building, the Applicant notes that an energy management system for operation and maintenance will be implemented to reduce electrical demand and promote high energy efficiency.

Preliminarily, the project architect has identified sustainable design strategies that result in energy savings and reduction of energy costs. Such strategies involve the use of energy efficient light fixtures, occupancy sensors for lighting, Variable Air Volume cooling, and direct digital controls to monitor and control air conditioning, ventilation, and the plumbing system.

A copy of your letter has been forwarded to the project architect for further consideration of a photovoltaic power system and other options for promoting energy efficiency and reduction on the dependence of electricity.

7. US Green Building Council (USGBC) (creators of LEED) created an accepted benchmark within the design/construction industry which defines sustainability for buildings. It is our understanding that the project will not pursue LEED Certification; however efforts will be made to incorporate strategies developed by the USGBC and integrate measures in designing a high performance building.

Jeffrey S. Hunt, Director  
June 8, 2009  
Page 3

We would like to thank the Maui County Urban Design Review Board for offering comments to the subject Draft EA. Should you have any additional comments or require more information regarding the subject project, please call me at 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates, Inc.  
Jonelle Oshiro, Landscape Architect

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CHARMAINE TAVARES  
Mayor

MAY - 8 2009

JEFFREY S. HUNT  
Director

KATHLEEN ROSS AOKI  
Deputy Director



COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

May 7, 2009

Ms. Rowena Dagdag-Andaya  
Munekiyo and Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

**SUBJECT: COMMENTS ON A DRAFT ENVIRONMENTAL ASSESSMENT (DEA) PREPARED IN SUPPORT OF APPLICATIONS FOR A STATE LAND USE DISTRICT BOUNDARY AMENDMENT (DBA), COMMUNITY PLAN AMENDMENT (CPA) AND CHANGE IN ZONING (CIZ) FOR THE PROPOSED KIHEI POLICE STATION, LOCATED AT KIHEI, ISLAND OF MAUI, HAWAII; TMK: (2) 2-2-002:070 (POR.) AND 069 (POR.) (DBA 2009/0001) (CPA 2009/0002) (CIZ 2009/0002) (EAC 2008/0029)**

The Department of Planning (Department) is in receipt of the above-referenced document for the proposed Kihei Police Station (the project). The Department understands the proposed action includes the following:

A DBA to change the current State Agricultural land use designation for the approximately ten (10) acres of land site to a State Urban designation, a CPA to change the current Park designation for a portion of the site in the Kihei-Makena Community Plan to Public/Quasi-Public, and a CIZ to change the zoning from Agricultural to Public/Quasi-Public.

The County of Maui, Police Department proposes to develop a police station on a site which is located primarily on a large County park parcel and is located east (mauka) of Pi'ilani Highway, in the vicinity of Kamali'i Elementary School. The subject properties are owned by the County of Maui and Haleakala Ranch Company and access to the site will be provided from Kanani Road via Pi'ilani Highway.

The proposed police station will be a two (2)-story building with a total floor area of 46,934 square feet on approximately ten (10) acres of land. The facility has been designed to accommodate the functional aspects of the Kihei police district, including office, meeting, and training areas, holding cells, and record storage. The police station will be operational 24 hours a day, seven (7) days a week. Related improvements include site grading and landscaping, installation of underground utilities, roadway access, and vehicle parking.

Based on the foregoing, the Department provides the following comments on the Draft EA:

1. DEA Executive Summary, p. i – Provide in the summary a clear listing of the DBA, CPA, and CIZ amendments sought, including proposed new designations and the acreage of the land areas which are proposed for each amendment;
2. DEA Section II.A.3., Topography and Soils, p. 13, and Section VIII., Letter dated June 20, 2008, from the Natural Resources Conservation Service – The referenced letter includes a comment that “The limitation ratings for the selected uses, small commercial buildings and local roads and streets, are severe and very limited respectively. These ratings do not preclude the intended land use, however they do identify potential limitations for the use, which may require corrective measures, increase costs, and/or require continued maintenance.” Please respond more thoroughly to the comment, the referenced potential limitations for the use, and any proposed corrective measures;
3. DEA Section II.A.6., Flora and Fauna, p. 20, and Section VIII., Letter dated July 15, 2008, from the U.S. Fish and Wildlife Service – The referenced letter recommends four (4) measures to address potential project impacts upon flora and fauna. Please clarify how the project design and construction teams, as well as future operations where relevant, will incorporate or otherwise respond to each of the four (4) recommended measures;
4. DEA Section II.D.1., Roadways, p. 33, and Appendix E., Traffic Impact Report dated March , 2009 – The traffic analysis is unusual in that it does not include a list of other planned and reasonably anticipated future projects in the vicinity of the police station site. Please explain why no such list was generated nor employed in the traffic analysis, how cumulative impacts can be reasonably addressed in the absence of such a list, coordinate with the Department of Public Works as to their opinion of the adequacy of the cumulative traffic analysis given the approach employed, and respond to any comments from the Department of Public Works in this regards, including revisions to the traffic analysis and proposed mitigations if called for;
5. DEA Section III.D, p. 51, – The current portion of the site which is designated as “Agriculture” within the Kihei-Makena Community Plan and which is proposed to contain only roadway, driveway and landscaping is not proposed to be changed to a Public/Quasi-Public designation along with the rest of the site. Please propose changes to the land use designation for this portion of the site to Public/Quasi-Public so that the entire site is under the one appropriate designation. If this would present serious problems, please confer further with the Department before proceeding with this request;

6. DEA Section III.F.3., Scenic and Open Space Resources, p. 59 - Although not adopted, the Draft Maui Island Plan can currently provide guidance regarding the evaluation of impacts upon scenic resources. Its draft policies listed in the Scenic Resources section under Heritage Resources are relevant to the subject site and application. This section references a Heritage Resource Policy Map. Pi'ilani Highway is identified on this map as a scenic resource corridor with medium scenic resource values. Relevant text of the March 2008 Draft Maui Island Plan follows:

Each roadway corridor is rated exceptional, high, medium, or low, based on its overall scenic resource value. Corridors with medium or low scenic resource values are generally in areas where the scenery is less dramatic and urban encroachment is more significant. However, even within highly urbanized corridors with relatively low scenic resource values, there are exceptional and important scenic views. These views are especially important since they provide visual relief, enhance the quality of the built environment, and thereby make urban areas more livable. The greatest threats to these scenic resources include:

- Inappropriate building massing, architecture, siting and landscape design
- Loss of agricultural and open lands to development

Relevant draft policies of this section follow:

- 2.2.1 Ensure the protection of scenic resources along Maui island's scenic roadway corridors.
- 2.2.3 Protect public views of Haleakala, Iao Valley, the West Maui Mountains, the Pacific Ocean and other significant water features, ridgelines and landforms.
- 2.2.6 Protect scenic resources along Maui's scenic roadway corridors as identified on the Heritage Resource Policy Map.

Given that the proposed project adjoins Pi'ilani Highway on the mauka side, it could have the potential to impact a public view of Haleakala. However, given the proposed building height in combination with the topography of the site and the adjoining portion of this highway, it is not likely public view impacts will be substantial. The greatest potential for a view impact should be to southbound travelers soon after they pass through the intersection of Pi'ilani Highway and Kanani Road. Please prepare a photo simulation of the proposed development as viewed from the southwest corner of Kanani Road

Ms. Rowena Dagdag-Andaya  
May 7, 2009  
Page 4

and Pi'ilani Highway, assess any impacts, and propose any mitigations if appropriate; and

7. DEA Section VIII., Letter dated June 27, 2008, from the Department of Health – Please identify the “Standard Comments” referenced in the letter which are applicable to the project and address how the project will adhere to them.

Thank you for the opportunity to comment. The Department appreciates your anticipated responsiveness to the above comments. Please feel free to contact Current Planning Supervisor Jeffrey Dack by email at [jeffrey.dack@mauicounty.gov](mailto:jeffrey.dack@mauicounty.gov) or by phone at (808) 270-6275 should you have any questions about the comments in this letter or if you desire any clarifications about the various permit processes.

Sincerely,



JEFFREY S. HUNT, AICP  
Planning Director

xc: Clayton I. Yoshida, AICP, Planning Program Administrator  
Jeffrey P. Dack, AICP, Current Planning Supervisor  
Project File  
General File

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MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Jeffrey S. Hunt, Director  
County of Maui  
**Department of Planning**  
250 South High Street  
Wailuku, Hawai'i 96793

**SUBJECT:** Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai'i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)

Dear Mr. Hunt:

Thank you for your letter dated May 4, 2009 containing comments from the Planning Department on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following responses to your comments.

1. The following information will be included in the Final Environmental Assessment Executive Summary:

**In order to implement the project, a Community Plan Amendment (CPA) from "Park" use to "Public/Quasi-Public" use will be required for the portion of TMK 2-2-002:070 where the proposed police station will be located. The project will also involve the use of County lands and fund. The CPA and the use of County lands and funds are triggers for Chapter 343, Hawaii Revised statutes (HRS). As such, an Environmental Assessment (EA) has been prepared pursuant to Chapter 343, HRS, and Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement Rules. The EA documents the project's technical characteristics and environmental impacts, and advance findings and conclusions relative to the significance of the project.**

**The proposed project will require several land use entitlement approvals to proceed. A summary of the current land use parameters and the entitlement designations being sought for land use consistency is presented in Table 1.**

**Table 1. Land Use Parameters and Entitlement Designations**

<b>Land Use Parameter</b>	<b>Existing Designation</b>	<b>Proposed Designation</b>
<b>State Land Use District</b>	Agricultural 10.42 acres	Urban 10.42 acres
<b>Kihei-Makena Community Plan</b>	Park 10.42 acres	Public/Quasi-Public 10.42 acres
<b>County Zoning</b>	Agricultural 10.42 acres	Public/Quasi- Public 10.42 acres

2. The following will be incorporated into Chapter 2, Section A, Physical Environment, Part 3, Topography and Soils:

**A Foundation Investigation report for the site of the proposed police station was completed on November 12, 2008. The report presented results of the foundation investigation which included fieldwork, laboratory testing, and provided geotechnical recommendations for the design of foundations, seismic considerations, slabs-on-grade, and resistance to lateral pressures, retaining walls, flexible pavement, and site grading. See Appendix "B".**

**The Foundation Investigation report indicated that the site can be generally developed as planned. Conventional shallow foundations may be used to support the proposed structure.**

**Footing excavations for the majority of the police station building and parking lot retaining wall will expose the highly weathered basalt. It is recommended that conventional shallow foundations bearing directly on the dense to medium hard, highly weathered basalt may be used to support the retaining walls and police station building. About two (2) to three (3) feet of fill placement is expected in the northwestern portion of the police station building. Footings located in this area should extend through the new fill and be founded directly on the highly weathered basalt.**

3. The following will be incorporated into Chapter 2, Section A, Physical Environment, Part 6 Flora and Fauna:

**The United States Fish and Wildlife Services (USF&WS) noted potential impacts to seabirds during construction activities at the project site. To mitigate potential impacts, several Best Management Practices, as recommended by the USF&WS will be implemented during construction. Such practices to be implemented during construction include the shielding of street lights so that the bulb is not visible above bulb height, avoiding nighttime construction, and providing construction staff with information regarding seabird fallout and provisions for handling a downed seabird during construction activities.**

**Additionally, a special effort was made to look for any occurrence of the Native Hawaiian Hoary Bat by making an evening survey on the property. While no evidence of such activity was observed, protection measures will be in place during construction at the project site during the pup-rearing season of April to August to avoid any potential impacts to the Hawaiian Hoary Bat.**

**The USF&WS also noted potential impacts to the endangered Hawaiian goose which may traverse on to the project site during construction activities. In the event that the Hawaiian goose is attracted to the project site, contact with the USF&WS will be made regarding actions to address potential impacts to the goose.**

**Although there was no evidence of native plant species found on the subject property, an effort will be made to utilize native vegetation in the landscaping plan as recommended by the Office of Hawaiian Affairs and the USF&WS.**

4. The study area for the Traffic Impact Report was based on intersections within the vicinity of the project site. There are no specific projects anticipated to be developed in the surrounding area which includes all of the intersections that have connections to the project site. In light of the ongoing General Plan Update process, the Land Use Policy Map recommendations prepared by the Maui Planning Department show no new growth areas immediately surrounding and adjacent to the project site on the south, east, and north. Additionally, no comments were received from the Department of Public Works regarding revisions to the traffic analysis prepared by the traffic engineer.

5. The portion of the site designated "Agriculture" by the Kihei-Makena Community Plan is identified by Tax Map Key No (2) 2-2-002:069 (por.) (Parcel 69), and owned by Haleakala Ranch. As stated in the Draft Environmental assessment, the County of Maui has an access easement on Parcel 69. This portion will be utilized as an access from the intersection of Pi'ilani Highway and Kanani Road. Land use changes for this portion of the project site will not be proposed since the property is owned by Haleakala Ranch and roadways are permitted on lands designated "Agriculture".
6. The following will be incorporated into Chapter 2, Section A, Physical Environment, Part 11, Scenic and Open Space Resources:

**The subject property is not considered a valuable scenic corridor. A key issue, with respect to views, however, pertains to the proposed building height in combination with the topography of the site and its view relationship with Haleakala from the intersection of Pi'ilani Highway and Kanani Road.**

**Mitigating measures to be implemented to ensure the preservation of views from Pi'ilani Highway and Kanani Road include the provision of an approximately 20-foot setback from Pi'ilani Highway. While the proposed building height is approximately 44 feet, the building will be positioned in a northwest-southeast direction to minimize view impacts mauka of the highway. With these parameters, a photographic analysis has been prepared to graphically represent the grade and building height relationship from Pi'ilani Highway. See Figure 13. Based on this analysis, there are no view plane interferences issues anticipated with the proposed action.**

7. In review of the standard Department of Health Environmental Planning Office (EPO) comments at their website, it is noted that the applicable comments for the proposed project include those related to the National Pollutant Discharge Elimination System (NPDES) permits for the project and project-related actions to prevent the discharge of polluted runoff from the site. It is noted that the proposed Police Station will secure all applicable permits prior to the start of construction, including the NPDES permit. Additionally, the proposed project includes filtering options for the increase in runoff from the developed site to mitigate pollutants. It is noted that the proposed drainage retention basin will be grassed as a natural alternative to providing storage as recommended in the EPO standard comments.

Jeffrey S. Hunt, Director  
June 8, 2009  
Page 5

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject proposal, please call me at 244-2015.

Very truly yours,

  
Rowena Dagdag-Andaya  
Planner

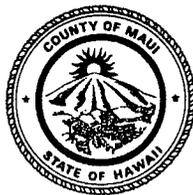
RDA:yp

cc: Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Chad McDonald, Mitsunaga & Associates, Inc.  
Aaron Fujii, Mitsunaga & Associates, Inc.  
Jonelle Oshiro, Landscape Architect

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MAY 2 2 2009

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 Nako'a Street, Unit 2, Wailuku, Hawaii 96793

May 14, 2009

Munekiyo & Hiraga, Inc.  
Rowena Dagdag-Andaya  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

**SUBJECT:** Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) applications for Proposed Kihei Police Station at TMK: 2-2-002:070 (por) and 069 (por), Kihei, Maui, Hawaii (DBA 2009/0001); (CIZ 2009/0002); (CPA 2009/0002)

Dear Ms. Dagdag-Andaya:

Please be advised that a master plan for the entire parcel was conducted a number of years ago. The Planning effort involved preliminary archaeological survey, preliminary engineering for utilities and access, topographical surveys and site evaluation.

Please contact this department if you would like to review these documents. We have no comments or objections to the proposed project.

Thank you for the opportunity to review and comment on this project; and feel free to contact me or Mr. Patrick Matsui, Chief of Parks Planning and Development at 270-7387 to further discuss this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Tamara Horcajo", written in a cursive style.

TAMARA HORCAJO  
Director of Parks & Recreation

xc: Patrick T. Matsui, Chief of Parks Planning and Development

TH:PTM:do



MICHAEL T. MUNEKIYO  
GWEN OHASHI HIRAGA  
MITSURU "MICH" HIRANO  
KARLYNN FUKUDA

MARK ALEXANDER ROY

June 8, 2009

Tamara Horcajo, Director  
County of Maui  
**Department of Parks and Recreation**  
700 Hali`a Nakoia Street, Unit 2  
Wailuku, Hawai`i 96793

**SUBJECT: Draft Environmental Assessment (EA), Community Plan Amendment (CPA), Change in Zoning (CIZ), and District Boundary Amendment (DBA) Applications for the Proposed Kihei Police Station at TMK (2) 2-2-002:070 (por.) and 069 (por.), Kihei, Maui, Hawai`i (DBA 2009/0001; CIZ 2009/0002; CPA 2009/0002)**

Dear Ms. Horcajo:

Thank you for your letter dated May 14, 2009, commenting on the subject project. On behalf of the applicant, the County of Maui, Maui Police Department, we offer the following response.

The applicant notes your comments regarding the preparation of a preliminary archaeological survey, preliminary engineering study for utilities and access, topographical surveys and site evaluations for the subject parcel. A copy of your letter was forwarded to the project architect and project engineer for consideration.

Tamara Horcajo, Director  
June 8, 2009  
Page 2

Thank you once again for your feedback. Should you have any additional comments or require more information regarding the subject proposal, please call me at 244-2015.

Very truly yours,



Rowena Dagdag-Andaya  
Planner

RDA:yp

cc: Jeffrey Hunt, County of Maui, Department of Planning  
Patrick T. Matsui, Department of Parks and Recreation  
Captain Lawrence Hudson, Maui Police Department  
Jay Buzianis, County of Maui, Department of Management  
Aaron Fujii, Mitsunaga & Associates Inc.

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APR 09 2009



April 8, 2009

Ms. Rowena Dagdag-Andaya, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya,

Subject: Draft Environmental Assessment, Community Plan Amendment, Change in Zoning, and District Boundary Amendment for the Proposed Kihei Police Station  
Tax Map Key: (2) 2-2-002:070 (por.) and 069 (por.)  
(CPA 2009/0002, CIZ 2009/0002, and DBA 2009/0001)  
Kanani Road and Pi'ilani Highway  
Kihei, Maui Hawaii

Thank you for allowing us to comment on the Draft Environmental Assessment, Community Plan Amendment, Change in Zoning, and District Boundary Amendment for the subject project.

In reviewing our records and the information received, Maui Electric Company (MECO) has no additional comments to the subject project at this time.

Should you have any questions or concerns, please call me at 871-2340.

Sincerely,

A handwritten signature in black ink, appearing to read "Ray Okazaki". The signature is fluid and cursive, written over a light blue horizontal line.

Ray Okazaki  
Staff Engineer

## **X. REFERENCES**

## X. REFERENCES

County of Maui, The General Plan of the County of Maui, September 1990 Update.

County of Maui, Kihei-Makena Community Plan, March 1998.

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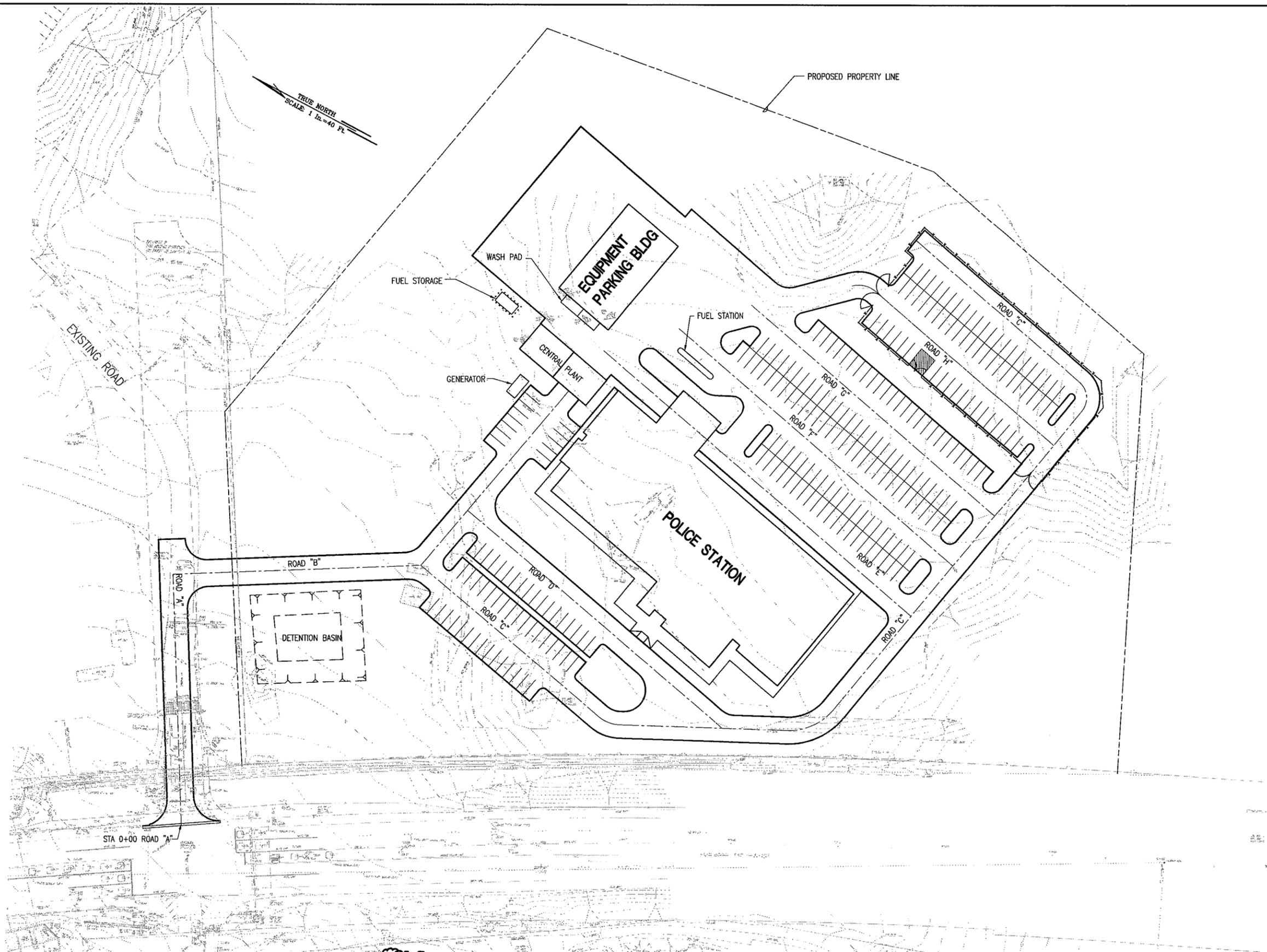
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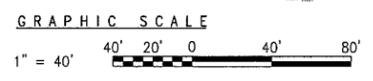
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# **APPENDIX A.**

## **Preliminary Development Plans**



**GENERAL SITE PLAN**  
SCALE: 1"=40'



REVISIONS	BY

**KIHEI POLICE STATION**  
KIHEI MAUI HAWAII  
TAX MAP KEY: (2) 2-2-02.POR. 70

**ARCHITECTURE**  
**ENGINEERING**  
**PLANNING**  
**CONSTRUCTION MANAGEMENT**  
747 AMANA STREET  
SUITE 210  
HONOLULU, HI 96814  
TEL: (808) 946-7888  
FAX: (808) 946-2563

Sheet Title  
**GENERAL SITE PLAN**

Date FEB 2009  
Scale AS SHOWN  
Design By KN  
Drawn By CADD  
Job 1192-01-C

Sheet No.  
**C-4**  
Sheet \_\_\_ of XXX



REVISIONS	BY

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WESTONDAZ & ASSOCIATES, INC.

KIHEI POLICE STATION  
KIHEI MAUI COUNTY HAWAII  
Tax Map Key:

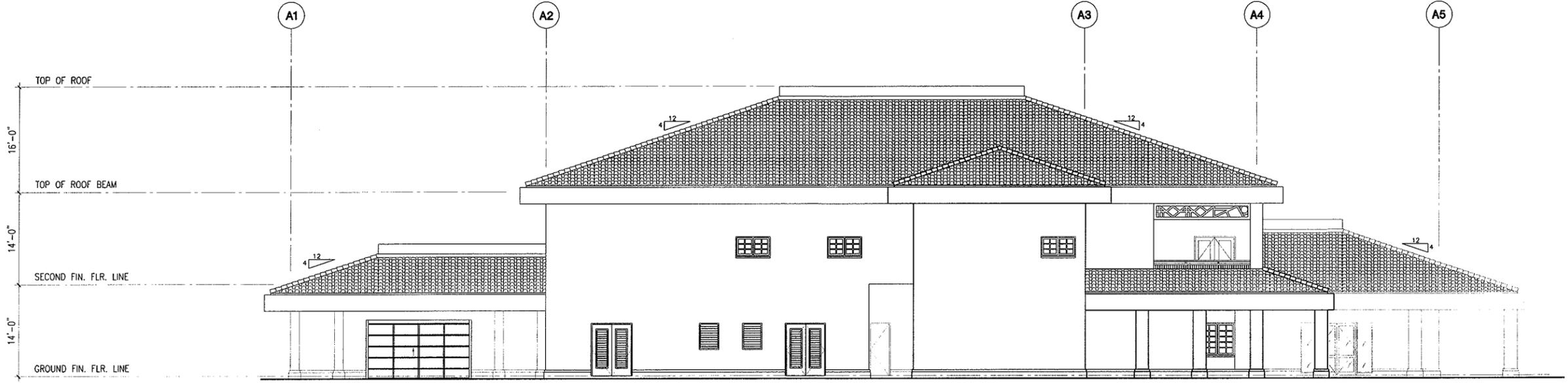
**MITSUNAGA & ASSOCIATES, INC.**  
ARCHITECTURE  
ENGINEERING  
PLANNING  
CONSTRUCTION MANAGEMENT  
747 ABANA STREET  
SUITE 216  
HONOLULU, HI 96814  
PH (808) 945-7882  
FAX (808) 946-2583

Sheet Title  
WEST & EAST  
ELEVATIONS

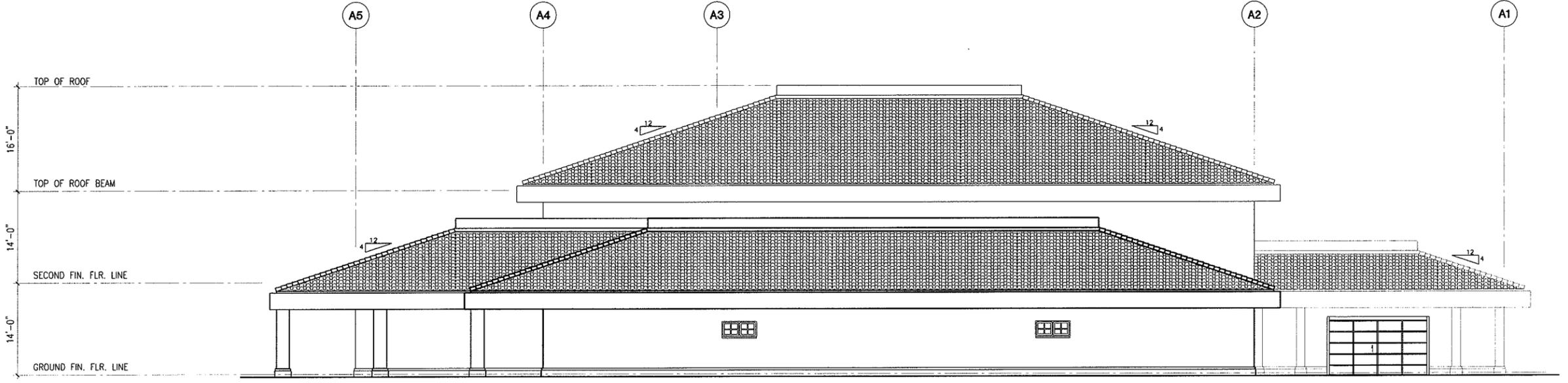
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Drawn by: ASF  
Checked by: CADD  
Job: 1192-01-A

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Sheet \_\_\_\_\_ of XX



**A WEST ELEVATION**  
SCALE: 1/8" = 1'-0"



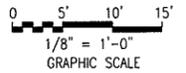
**B EAST ELEVATION**  
SCALE: 1/8" = 1'-0"

EXTERIOR ELEVATION  
GENERAL NOTES:

1. SEE CIVIL DRAWINGS FOR FINISH GRADES.

EXTERIOR ELEVATION  
KEY LEGEND:

- ① CONCRETE
- ② PREFINISHED METAL ROOFING
- ③ PREFINISHED METAL FASCIA
- ④ DOOR AS SCHEDULED
- ⑤ WINDOW AS SCHEDULED
- ⑥ METAL GUTTERS AND DOWNSPOUTS
- ⑦ MOULDING



REVISIONS	BY

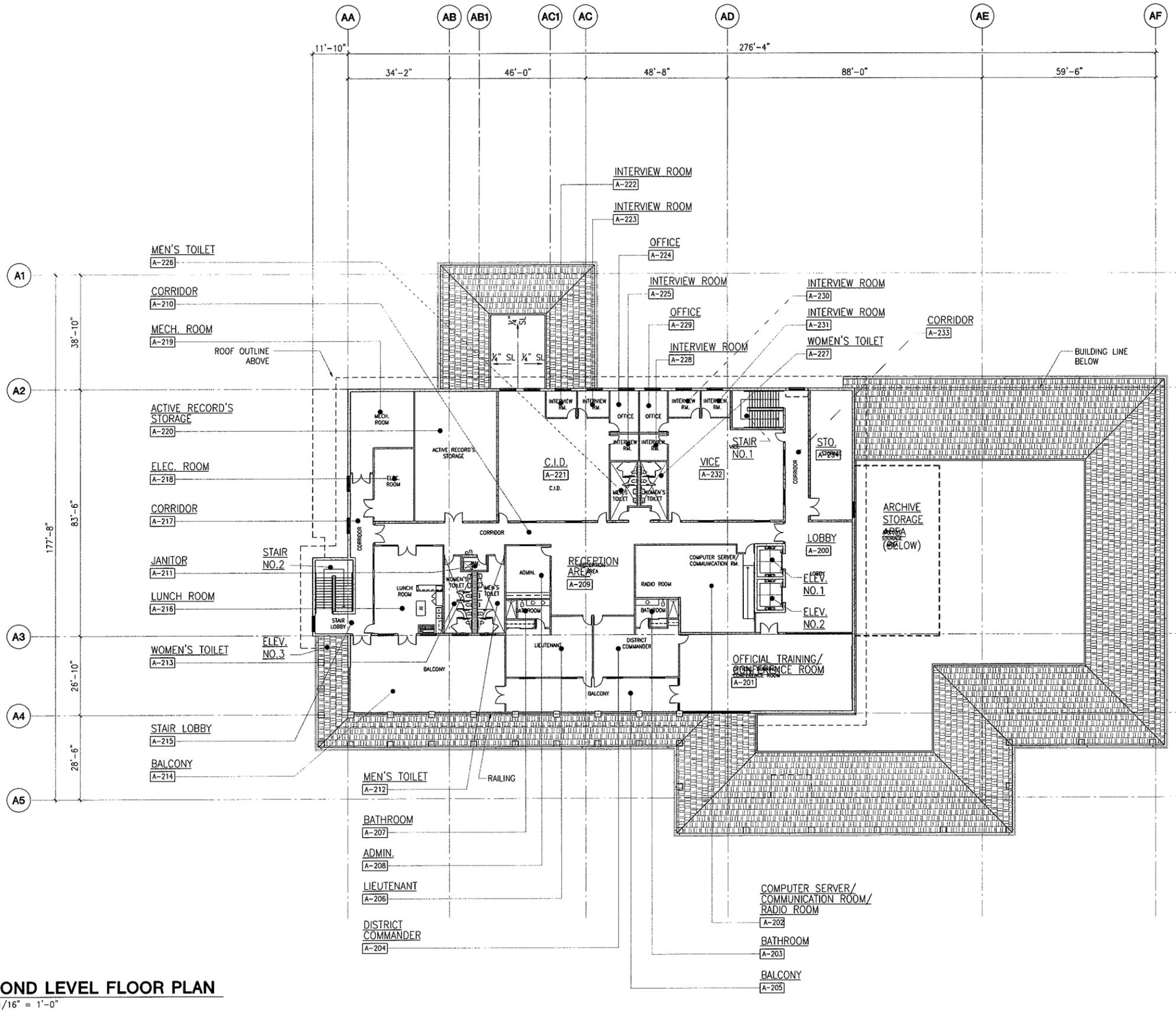
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THE PROJECT HAS BEEN UNDER MY CLOSE PERSONAL SUPERVISION AND CONSTRUCTION HAS BEEN IN ACCORDANCE WITH THE HAWAII ADMINISTRATIVE RULES, PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS, AND LANDSCAPE ARCHITECTS' EXPIRATION DATE: 7/29/10

**KIHEI POLICE STATION**  
 HAWAII  
 MAUI COUNTY  
 KIHEI  
 Tax Map Key:

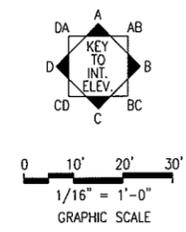
**MITSUNAGA & ASSOCIATES, INC.**  
 ARCHITECTURE  
 ENGINEERING  
 PLANNING  
 CONSTRUCTION MANAGEMENT  
 747 ANAHE STREET  
 SUITE 216  
 HONOLULU, HI 96814  
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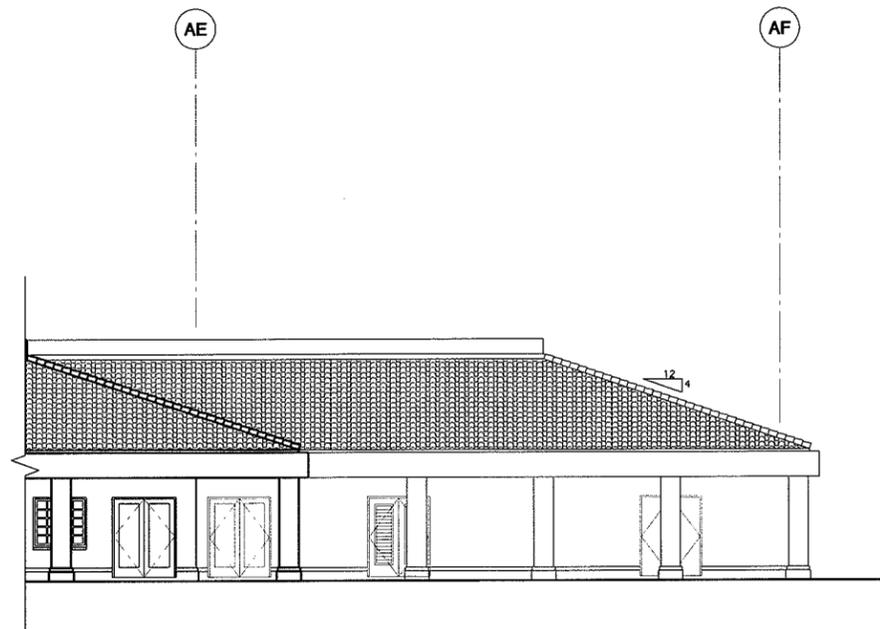
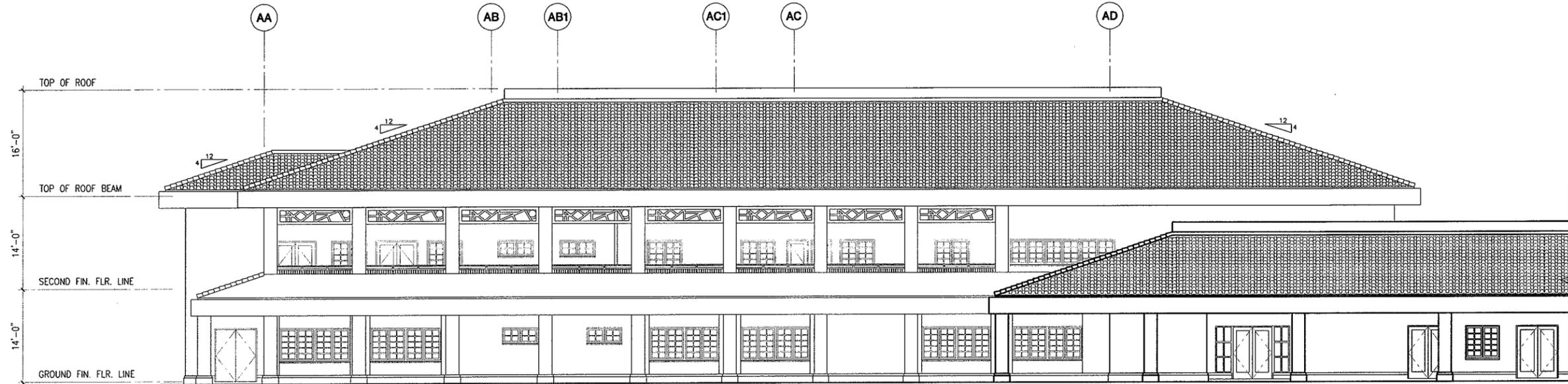
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**PARTIAL SITE  
 PLAN &  
 SECOND FLOOR  
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Date: DECEMBER 2007  
 Scale: AS NOTED  
 Design By: ASF  
 Drawn By: CADD  
 Job: 1192-01-A  
 Sheet: **A-2.02**  
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**A SECOND LEVEL FLOOR PLAN**  
 SCALE: 1/16" = 1'-0"





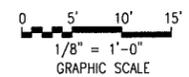
**A SOUTH ELEVATION**  
SCALE: 1/8" = 1'-0"

**EXTERIOR ELEVATION  
GENERAL NOTES:**

1. SEE CIVIL DRAWINGS FOR FINISH GRADES.

**EXTERIOR ELEVATION  
KEY LEGEND:**

- 1 CONCRETE
- 2 PREFINISHED METAL ROOFING
- 3 PREFINISHED METAL FASCIA
- 4 DOOR AS SCHEDULED
- 5 WINDOW AS SCHEDULED
- 6 METAL GUTTERS AND DOWNSPOUTS
- 7 MOULDING



REVISIONS	BY

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THE PROJECTS DESCRIBED HEREIN WAS UNDER MY CLOSE PERSONAL SUPERVISION AND I AM A LICENSED PROFESSIONAL ARCHITECT IN THE STATE OF HAWAII. I AM NOT PROVIDING PROFESSIONAL SERVICES IN ANY OTHER JURISDICTION. EXPIRATION DATE: 4/30/10

**KIHEI POLICE STATION**  
KIHEI MAUI COUNTY HAWAII  
Tax Map Key:

**MITSUNAGA & ASSOCIATES, INC.**  
ARCHITECTURE  
ENGINEERING  
PLANNING  
CONSTRUCTION MANAGEMENT  
747 AWAHA STREET  
SUITE 216  
HONOLULU, HI 96814  
PH: (808) 946-7882 FAX: (808) 946-2583

Sheet Title  
**SOUTH ELEVATION**

N

Date: DECEMBER 2007

Scale: AS NOTED

Design By: ASF

Drawn By: CADD

Job: 1192-01-A

Sheet  
**A-5.0**

Sheet \_\_\_ of XX



# **APPENDIX B.**

**Foundation Investigation  
Kihei Police Station, Kihei,  
Maui, Hawai`i**



Hirata & Associates, Inc.

1000 Kalia Road, Suite 200  
Honolulu, Hawaii 96814  
Tel: 808-955-1234  
Fax: 808-955-1235

November 12, 2008  
W.O. 08-4594

Mr. Chad McDonald  
Mitsunaga & Associates, Inc.  
747 Amama Street, Suite 216  
Honolulu, Hawaii 96814

Dear Mr. McDonald:

Our report, "Foundation Investigation, Kihei Police Station, Kihei, Maui, Hawaii, TMK: (2) 2-2-02: Portion of 70," dated November 12, 2008, our Work Order 08-4594 is enclosed. This investigation was conducted in general conformance with the scope of services presented in our proposal dated March 26, 2008.

The scope of our project also included a new 0.5 or 1.0 MG reservoir. However, at the time of this report, the location of the reservoir had not been determined. Upon selection of the location and completion of our fieldwork, laboratory testing, and analyses, geotechnical recommendations for design of the water tank will be provided in an addendum to this report.

The police station building will generally be located in a cut area, where the maximum depth of cuts will extend to about 6 feet. Shallow fill placement is expected in the northwestern corner of the building. The equipment parking structure, the western parking lot, and the driveway entrance will be located in fill areas. Maximum fill heights will be on the order of about 10 feet.

Our borings generally encountered 1 to 3 feet of surface clayey silt with sand and gravel, underlain by highly weathered basalt, and at deeper depths, moderately weathered basalt. We therefore expect that most of the surface clayey silt will be removed during clearing and grubbing operations in the proposed building areas, exposing the underlying highly weathered basalt.

Conventional shallow foundations bearing directly on the dense to medium hard, highly weathered basalt may be used to support the proposed police station building. Footings supporting the covered equipment parking structure may be founded on a minimum 12 inches of new structural fill.

Additional geotechnical recommendations are provided in this report. We appreciate this opportunity to be of service. Should you have any questions concerning this report, please feel free to call on us.

Very truly yours,

HIRATA & ASSOCIATES, INC.

Paul S. Morimoto

Vice President

PSM:RIKY:ph

**FOUNDATION INVESTIGATION  
KIHEI POLICE STATION  
KIHEI, MAUI, HAWAII  
TMK: (2) 2-2-02: PORTION OF 70**

for

**MITSunAGA & ASSOCIATES, INC.**

HIRATA & ASSOCIATES, INC.  
W.O. 08-4594  
November 12, 2008

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**APPENDICES**

**APPENDIX A**

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Location Map ..... Plate A2.1

Boring Location Plan ..... Plate A2.2

Boring Log Legend ..... Plate A3.1

Unified Soil Classification System ..... Plate A3.2

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**APPENDIX B**

Description of Laboratory Testing ..... Plates B1.1 and B1.2

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Direct Shear Test Reports ..... Plates B3.1 and B3.2

Modified Proctor Test Reports ..... Plates B4.1 and B4.2

CBR Test Reports ..... Plates B5.1 and B5.2

**FOUNDATION INVESTIGATION  
KIHEI POLICE STATION  
KIHEI, MAUI, HAWAII  
TMK: (2) 2-2-02: PORTION OF 70**

**INTRODUCTION**

This report presents the results of our foundation investigation performed for the proposed Kihei Police Station in Kihei, Maui, Hawaii. Our services for this study included the following:

- A visual reconnaissance of the site and its vicinity to observe existing conditions which may affect the project. The general location of the project site is shown on the enclosed Location Map, Plate A2.1.
- A review of available in-house soils information pertinent to the site and the proposed project.
- Drilling and sampling eleven exploratory borings to depths ranging from about 10 to 20.5 feet. A description of our field investigation is summarized on Plates A1.1 and A1.2. The approximate exploratory boring locations are shown on the enclosed Boring Location Plan, Plate A2.2, and the soils encountered in the borings are described on the Boring Logs, Plates A4.1 through A4.1.1.
- Laboratory testing of selected soil samples. Testing procedures are presented in the Description of Laboratory Testing, Plates B1.1 and B1.2. Test results are presented on the Boring Logs (Plates A4.1 through A4.1.1), Consolidation Test reports (Plates B2.1 and B2.2), Direct Shear Test reports (Plates B3.1 and B3.2), Modified Proctor Test reports (Plates B4.1 and B4.2), and on the CBR Test reports (Plates B5.1 and 5.2).
- Engineering analyses of the field and laboratory data.
- Preparation of this report presenting geotechnical recommendations for the design of foundations, seismic considerations, slabs-on-grade, resistance to lateral pressures, retaining walls, flexible pavement, and site grading.

**PROJECT CONSIDERATIONS**

The proposed police station will include a new one and two story building with plan dimensions on the order of 110 by 275 feet. We assume that the structure will use reinforced concrete and/or masonry construction with concrete slabs-on-grade. The project will also include a covered equipment parking structure with plan dimensions of about 60 by 100 feet. Although not available at the time of this proposal, we expect moderately heavy building loads for the police station. AC paved driveways and parking areas are also planned. The preliminary site plan shows more than 220 parking stalls for visitor, staff, police, and impound parking.

Based on the Preliminary Grading Plan, site grading for the police building will consist primarily of cuts, with shallow fill placement in limited areas. Maximum cut depths will be on the order of about 6 feet. Grading for the covered equipment parking structure will consist primarily of fill placement with maximum fill heights on the order of 10 feet.

The project will also include a new reservoir, either 0.5 or 1.0 MG in size. However, the location of the new reservoir had not been determined at the time of this report. Recommendations for the reservoir will therefore be provided in a future addendum to this report.

**SITE CONDITIONS**

The project site is located on the east side of Piilani Highway, southeast of its intersection with Kanani Road in Kihei, Maui. Vacant land borders the site on the east and south, with an AC and gravel road bordering on the north. A wire fence extends along the western and northern perimeters of the site. The site is vacant of structures and, similar to the bordering areas, covered with light to moderate vegetation. Occasional basalt outcrops were observed throughout the site. Two small concrete slabs were also observed in the northern portion of the site.

The site generally slopes upward in a southeasterly direction. Ground elevations range from about +130 in the northwest to about +170 in the southeast.

#### **SOIL CONDITIONS**

The surface soil was classified as brown clayey silt with sand and gravel. The clayey silt was generally in a medium stiff condition and extended to depths ranging from only about 1 to 3 feet.

Underlying the clayey silt was grayish brown highly weathered basalt. The highly weathered basalt was in a dense to medium hard condition and extended to the maximum depths drilled in three of the borings, and to depths ranging from about 5.5 to 12 feet in the remaining borings.

Beneath the highly weathered basalt was gray moderately weathered basalt. The moderately weathered basalt was in a slightly vesicular, fractured, and medium hard to hard condition, extending to the maximum depths drilled.

Neither groundwater nor seepage water was encountered.

#### **CONCLUSIONS AND RECOMMENDATIONS**

Based on our exploratory fieldwork and laboratory testing, we believe that from a geotechnical viewpoint, the site can generally be developed as planned. Conventional shallow foundations may be used to support the proposed structure.

We expect that most of the relatively thin surface layer of clayey silt will be removed during clearing and grubbing operations in proposed building areas, exposing the underlying highly weathered basalt. We recommend that any clayey silt remaining after the clearing and grubbing operations be removed down to the highly weathered basalt stratum.

Based on the preliminary grading plans and the soils encountered in our borings, we expect that footing excavations for the majority of the police station building and parking lot retaining wall will expose the highly weathered basalt. Therefore, conventional shallow foundations bearing directly on the dense to medium hard, highly weathered basalt may be used to support the retaining wall and police station building. About 2 to 3 feet of fill placement is expected in the northwestern portion of the police station building. Footings located in this area should extend through the new fill and be founded directly on the highly weathered basalt.

Footing excavations for the covered equipment parking structure are expected to expose new compacted fill. Conventional shallow foundations founded on a minimum 12 inches granular structural fill may be used for support of the covered equipment parking structure.

#### **Foundations**

Conventional spread footings may be used to support the proposed structures and retaining wall. Foundations supporting the proposed equipment parking structure, and bearing directly on a minimum 12 inches of granular structural fill, may be

designed for an allowable bearing value of 3,000 pounds per square foot. Foundations supporting the proposed police station building, and bearing directly on the medium hard to hard highly weathered basalt may be designed for an allowable bearing value of 6,000 pounds per square foot. The recommended allowable bearing values are for the total of dead and frequently applied live loads, and may be increased by one-third for short duration loading which includes the effect of wind and seismic forces.

Footings should be a minimum 16 inches in width and embedded at least 12 and 18 inches below finish adjacent grade for one and two story structures, respectively.

The bottom of all footing excavations should be cleaned of loose or deleterious material prior to placement of reinforcing steel and concrete.

Footings located on, or near the top of slopes, should be embedded such that a minimum horizontal distance of 5 feet is maintained between the bottom edge of footing and slope face.

#### Seismic Design

Based on the borings drilled as part of this study and our knowledge of the deep soil conditions in the area, the subsurface soils can be characterized as a rock soil profile. Therefore, based on the 2003 International Building Code, Site Class B is recommended for this site.

#### Lateral Design

Resistance to lateral loading may be provided by friction acting at the base of foundations and by passive earth pressure acting on the buried portions of foundations.

Coefficients of friction of 0.4 and 0.5 may be used with the dead load forces for foundations founded on granular structural fill and highly weathered basalt, respectively. Passive earth pressure may be computed as equivalent fluids having densities of 300 and 400 pounds per cubic foot for granular structural fill and weathered basalt, respectively, with maximum earth pressures of 3,000 and 4,000 pounds per square foot. Unless covered by pavement or concrete slabs, the upper 12 inches of soil should not be considered in computing lateral resistance.

#### Retaining Walls

Retaining wall foundations may be designed using recommendations in the *Foundations, Seismic Design, and Lateral Design* sections of this report. For active earth pressure considerations, the following equivalent fluid pressures may be used:

Soil Type	Level Backfill Condition	Sloping Backfill Condition	Restrained/At-rest Condition
Highly weathered basalt	35 pcf	45 pcf	50 pcf
Granular structural fill	40 pcf	50 pcf	55 pcf

A vehicle surcharge load should be considered when designing retaining walls located in the parking lot areas.

To prevent the buildup of hydrostatic pressures, retaining structures should be well-drained. The standard of practice consists of placing a minimum 12-inch thick layer of free-draining gravel at the back of the wall. The gravel should extend from the base of the wall, around subdrains and/or weepholes, and up to within 12 inches of finish grade. Alternatively, prefabricated drainage geocomposites, such as Miradrain or J-drain, may be used in lieu of the free-draining gravel. As with the free-draining gravel, the drainage geocomposites should be placed at the back of the wall, be

connected with the weepholes and/or subdrains (in accordance with manufacturer's specifications), and extend to within 12 inches of finish grade.

For freestanding walls, the drainage system should be covered by at least 12 inches of low permeability soil, such as the onsite clayey silt. If the backfill is covered by interior or exterior concrete slabs, the gravel fill should extend to the bottom of slab cushion elevation.

#### **Foundation Settlement**

Structural loads were not available at the time of this report. However, neither excessive total nor differential settlement is anticipated for foundations bearing on compacted structural fill or highly weathered basalt. The final building loads should be forwarded to our office, when available, for review.

#### **Slabs-on-Grade**

To provide uniform support, all building slabs-on-grade should be underlain by a 4-inch cushion of clean gravel, such as #3 Fine (ASTM C33 Size No. 67), and protected by a vapor barrier placed over the cushion material. Slabs-on-grade which will receive floor covering, especially "hard" floor covering such as slate or marble, should include control joints saw-cut into the concrete slab. The purpose of this is to help reduce the potential for reflective cracking of the floor covering due to shrinkage cracks in the concrete slab. Proper curing of the concrete slabs will help reduce shrinkage cracking.

Exterior slabs-on-grade and concrete walkways should be underlain by at least 4 inches of aggregate base course in lieu of the gravel cushion.

#### **Pavement Design**

Pavement subgrade throughout most of the project site is expected to expose either the highly weathered basalt or new compacted fill. Flexible pavement for driveways

and parking areas where either weathered basalt or compacted fill is exposed at subgrade elevation may be designed based on the following section:

2.0"	Asphaltic Concrete
6.0"	Base Course (minimum CBR = 85)
8.0"	Total Thickness

In areas where the clayey silt is exposed at finish subgrade, flexible pavement may be designed using the following section:

2.0"	Asphaltic Concrete
6.0"	Base Course (minimum CBR = 85)
6.0"	Select Borrow (minimum CBR = 25)
14.0"	Total Thickness

The subgrade, select borrow, and base course layers should be compacted to a minimum 95 percent compaction as determined by ASTM D 1557.

#### **Site Grading**

**Site Preparation** - The project site should be cleared of all vegetation, debris, and other deleterious material. We expect that most of the relatively thin surface layer of clayey silt will be removed during clearing and grubbing operations in proposed building areas, exposing the underlying highly weathered basalt. Any clayey silt remaining after the clearing and grubbing operations should be removed down to the highly weathered basalt stratum.

**Onsite Fill Materials** - The onsite clayey silt will not be acceptable for reuse in structural fills, however, the soil may be reused in general or yard fill areas. Excavated basalt may be reused in structural fills and backfills provided the material is crushed to a well-graded consistency, with a maximum particle size of 3 inches.

**Imported Fill Materials** - Imported structural fill should be well-graded, non-expansive granular material. Specifications for imported granular structural fill

should indicate a maximum particle size of 3 inches, and state that between 8 and 20 percent of soil by weight shall pass the #200 sieve. In addition, the plasticity index (P.I.) of that portion of the soil passing the #40 sieve shall not be greater than 10. Granular structural fill should also have a minimum CBR value of 12 and a CBR expansion value less than 1.0 percent when tested in accordance with ASTM D 1883.

**Compaction** - Granular structural fill and backfill should be placed in horizontal lifts restricted to eight inches in loose thickness and compacted to a minimum 95 percent compaction as determined by ASTM D 1557. Fill placed in areas which slope steeper than 5H:1V, should be continually benched as the fill is brought up in lifts. Fill placed on slopes should be keyed and benched into the existing slope to provide stability for the new fill against sliding. Filling the slope with silver fills should be avoided.

**Structural Excavations** - Based on our exploratory borings, we believe that excavations into the moderately weathered basalt layer will require pneumatic equipment. Temporary cuts into the weathered basalt should stand a near vertical gradient. However, it should be the Contractor's responsibility to conform to all OSHA safety standards for excavations.

**Slope Gradients** - Cut slopes into the highly and moderately weathered basalt may be designed for gradients of 1H:1V or flatter. Fill slopes may be designed for gradients of 2H:1V or flatter. Fill slopes should be planned as soon as practical upon completion of grading to reduce the effects of erosion and weathering.

#### **ADDITIONAL SERVICES**

We recommend that we perform a general review of the final design plans and specifications. This will allow us to verify that the foundation design and earthwork

recommendations have been properly interpreted and implemented in the design plans and construction specifications.

For continuity, we recommend that we be retained during construction to (1) check footing excavations prior to placement of reinforcing steel and concrete, (2) review and/or perform laboratory testing on import borrow to determine its acceptability for use in compacted fills, (3) observe structural fill and backfill placement and perform compaction testing, and (4) provide geotechnical consultation as required. Our services during construction will allow us to verify that our recommendations are properly interpreted and included in construction, and if necessary, to make modifications to those recommendations, thereby reducing construction delays in the event subsurface conditions differ from those anticipated.

#### **LIMITATIONS**

The boring logs indicate the approximate subsurface soil conditions encountered only at those times and locations where our borings were made, and may not represent conditions at other times and locations.

This report was prepared specifically for Mitsunaga & Associates, Inc. and their sub-consultants for design of the proposed Kihei Police Station in Kihei, Maui, Hawaii. The boring logs, laboratory test results, and recommendations presented in this report are for design purposes only, and are not intended for use in developing cost estimates by the contractor.

During construction, should subsurface conditions differ from those encountered in our borings, we should be advised immediately in order to re-evaluate our recommendations, and to revise or verify them in writing before proceeding with construction.

Hirata & Associates, Inc.

Our recommendations and conclusions are based upon the site materials observed, the preliminary design information made available, the data obtained from our site exploration, our engineering analyses, and our experience and engineering judgement. The conclusions and recommendations are professional opinions which we have strived to develop in a manner consistent with that level of care, skill, and competence ordinarily exercised by members of the profession in good standing, currently practicing under similar conditions. We will be responsible for those recommendations and conclusions, but will not be responsible for the interpretation by others of the information developed. No warranty is made regarding the services performed under this agreement, either express or implied.

Respectfully submitted,

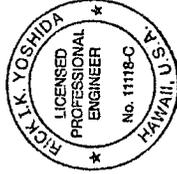
HIRATA & ASSOCIATES, INC.

*Rick Yoshida*

Rick Yoshida, Project Engineer

*Paul S. Morimoto*

Paul S. Morimoto, Project Manager



This work was prepared by  
me or under my supervision  
Expiration Date of License:  
April 30, 2010

## APPENDIX A

# FIELD INVESTIGATION

## DESCRIPTION OF FIELD INVESTIGATION

### GENERAL

The site for the proposed police station was explored from May 13 to 20, 2008, by performing a visual site reconnaissance and drilling eleven exploratory test borings to depths ranging from about 10 to 20.5 feet with a Mobile B-53 truck-mounted drill rig.

During drilling operations, the soils were continuously logged by our field engineer and classified by visual examination in accordance with the Unified Soil Classification System. The boring logs indicate the depths at which the soils or their characteristics change, although the change could actually be gradual. If the change occurred between sample locations, the depth was interpreted based on field observations. Classifications and sampling intervals are shown on the boring logs. A Boring Log Legend is presented on Plate A3.1. The Unified Soil Classification and Rock Weathering Classification Systems are shown on Plates A3.2 and A3.3, respectively. The soils encountered are logged on Plates A4.1 through A4.11.

Boring locations were located in the field by measuring/taping offsets from existing site features shown on the site plans. Ground surface elevations at boring locations were estimated using the Topographic Plan provided by Misunaga & Associates, Inc. The accuracy of the boring locations shown on Plate A2.2, and the surface elevations shown on the boring logs are therefore approximate, in accordance with the field methods used.

### SOIL SAMPLING

Representative and bulk soil samples were recovered from the borings for selected laboratory testing and analyses. Representative samples were recovered by driving a 3-inch O.D. split tube sampler a total of 18 inches with a 140-pound hammer dropped from a height of 30 inches. The number of blows required to drive the

sampler the final 12 inches are recorded at the appropriate depths on the boring logs, unless noted otherwise. Bulk soil samples were recovered from near borings B7 and B11 at depths of about 1 foot for selected laboratory testing that would aid in soil classification.

Core samples were obtained by drilling with an NX core barrel having an inside diameter of 2.1 inches. Recovery percentages for each core run are shown on the enclosed Boring Log. The rock quality designation (RQD) for the core run is also shown on the Boring Log. This is a modified core recovery percentage which takes into account the number of fractures observed in the core samples. Only pieces of core 4 inches in length or longer, as measured along the centerline, were included in the determination of this modified core recovery percentage. Fractures caused by drilling or handling were ignored.

The following is a general correlation between RQD percentages and rock quality.

RQD (%)	Description of Rock Quality
0 - 25	Very Poor
25 - 50	Poor
50 - 75	Fair
75 - 90	Good
90 - 100	Excellent

Reference: *Tunnel Engineering Handbook*, Second Edition, edited by J.O. Bickel, T.R. Kuesel, and E.H. King, 1996.



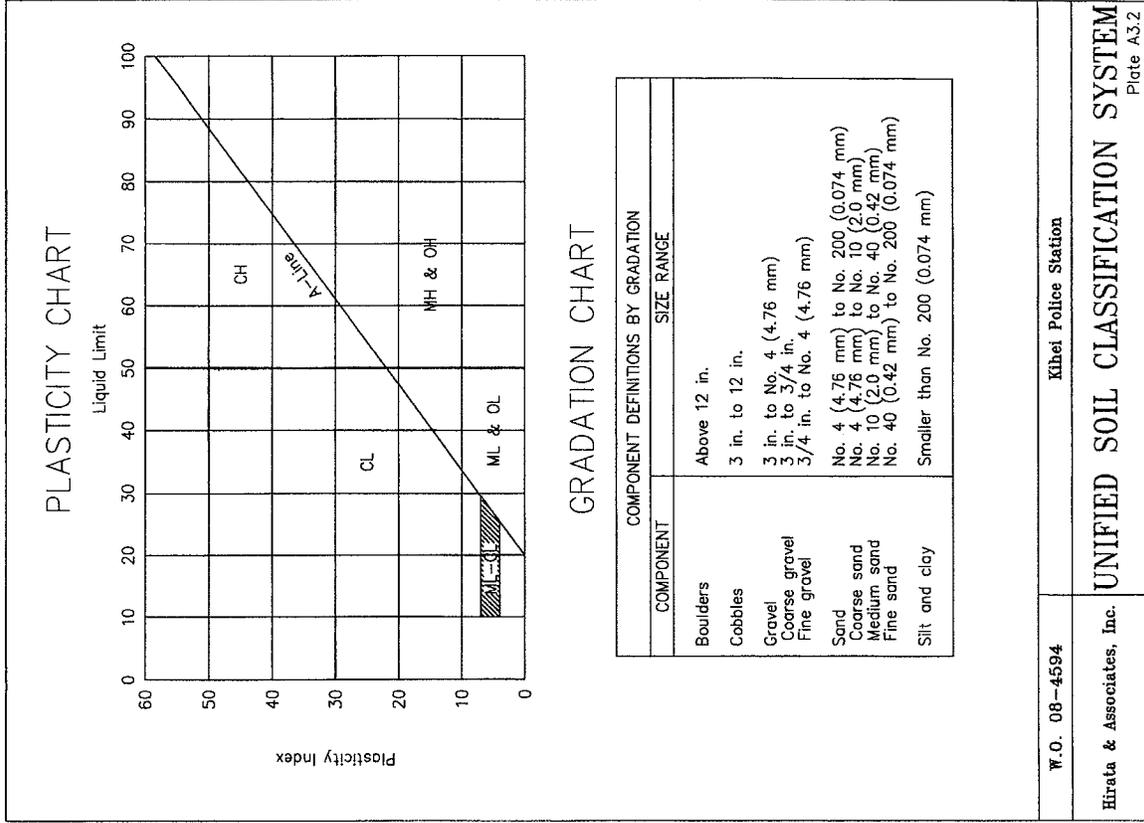
MAJOR DIVISIONS	GROUP SYMBOLS	TYPICAL NAMES
GRAVELS (More than 50% of coarse fraction is larger than the No. 4 sieve size.)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
	GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
COARSE GRAINED SOILS (More than 50% of the material is larger than No. 200 sieve size.)	GM	Silty gravels, gravel-sand-silt mixtures.
	GC	Clayey gravels, gravel-sand-clay mixtures.
SANDS (More than 50% of coarse fraction is smaller than the No. 4 sieve size.)	SW	Well graded sands, gravelly sands, little or no fines.
	SP	Poorly graded sands or gravelly sands, little or no fines.
FINE GRAINED SOILS (More than 50% of the material is smaller than No. 200 sieve size.)	SM	Silty sands, sand-silt mixtures.
	SC	Clayey sands, sand-clay mixtures.
SILTS AND CLAYS (Liquid limit less than 50.)	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
SILTS AND CLAYS (Liquid limit greater than 50.)	OL	Organic silts and organic silty clays of low plasticity.
	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
HIGHLY ORGANIC SOILS	CH	Inorganic clays of high plasticity, fat clays.
	OH	Organic clays of medium to high plasticity, organic silts.
SAMPLE DEFINITION	PT	Peat and other highly organic soils.
	FRESH TO MODERATELY WEATHERED BASALT	
VOLCANIC TUFF / HIGHLY TO COMPLETELY WEATHERED BASALT		
	CORAL	

<input checked="" type="checkbox"/> 2" O.D. Standard Split Spoon Sampler	<input checked="" type="checkbox"/> Shelby Tube	<input type="checkbox"/> RQD Rock Quality Designation
<input type="checkbox"/> 3" O.D. Split Tube Sampler	<input type="checkbox"/> NX / 4" Coring	<input checked="" type="checkbox"/> Water Level

W.O. 08-4594	Kihel Police Station
Hirata & Associates, Inc.	BORING LOG LEGEND
	Plate A3.1



HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 08-4594

BORING NO. B1 DRIVING WT. 140 lb. START DATE 5/13/08  
 SURFACE ELEV. 138±\* DROP 30 in. END DATE 5/13/08

DEPTH	GRAH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
5			50/6"	73	12	Clayey SILT (ML) - Brown, moist, with sand and gravel.
10			59	90	4	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense to medium hard.
15			98/10"	118	2	MODERATELY WEATHERED BASALT (WM) - Gray, slightly vesicular, slightly fractured, medium hard to hard. Begin NX coring at 10 feet. 95% Recovery from 10 to 15 feet. ROD = 82%
20						100% Recovery from 15 to 20 feet. ROD = 95%
25						End boring at 20 feet.
30						Neither groundwater nor seepage water encountered.

\* Elevations based on Topographic Plan provided by Mitsunaga & Associates, Inc.

Plate A4.1

Grade	Symbol	Description
Fresh	F	No visible signs of decomposition or discoloration. Rings under hammer impact.
Slightly Weathered	WS	Slight discoloration inwards from open fractures, otherwise similar to F.
Moderately Weathered	WM	Discoloration throughout. Weaker minerals such as feldspar decomposed. Strength somewhat less than fresh rock but cores cannot be broken by hand or scraped by knife. Texture preserved.
Highly Weathered	WH	Most minerals somewhat decomposed. Specimens can be broken by hand with effort or shaved with knife. Core stones present in rock mass. Texture becoming indistinct but fabric preserved.
Completely Weathered	WC	Minerals decomposed to soil but fabric and structure preserved (Saprolite). Specimens easily crumbled or penetrated.
Residual Soil	RS	Advanced state of decomposition resulting in plastic soils. Rock fabric and structure completely destroyed. Large volume change.

Reference: Soils Mechanics, NAVFAC DM-7.1, Department of the Navy, Naval Facilities Engineering Command, September, 1986.

W.O. 08-4594

Kihel Police Station

Hirata & Associates, Inc. **ROCK WEATHERING CLASSIFICATION SYSTEM** Plate A3.3

HIRATA & ASSOCIATES, INC.

BORING LOG

BORING NO. B2 SURFACE ELEV. 142± DRIVING WT. 140 lb. DROP 30 in. START DATE 5/13/08 END DATE 5/13/08 W.O. 08-4594

DEPTH	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
5			50/6"	69	19	Clayey SILT (ML) - Brown, moist, with sand and gravel.
10			50/6"	85	12	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense to medium hard.
15			10/No Penetration			MODERATELY WEATHERED BASALT (WM) - Gray, slightly vesicular, slightly fractured, medium hard to hard. Begin NX coring at 9 feet. 97% Recovery from 9 to 14 feet. RQD = 77%
20						100% Recovery from 14 to 19 feet. RQD = 100%
25						End boring at 19 feet.
30						Neither groundwater nor seepage water encountered.

Plate A4.2

HIRATA & ASSOCIATES, INC.

BORING LOG

BORING NO. B3 SURFACE ELEV. 148± DRIVING WT. 140 lb. DROP 30 in. START DATE 5/14/08 END DATE 5/14/08 W.O. 08-4594

DEPTH	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
5			99/11"	61	18	Clayey SILT (ML) - Brown, moist, with sand and gravel.
10			99/10"	77	19	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense to medium hard.
15			50/6"			Sample disturbed at 5 feet.
20			10/No Penetration			MODERATELY WEATHERED BASALT (WM) - Gray, slightly vesicular, highly fractured, medium hard to hard. Begin NX coring at 9 feet. 58% Recovery from 9 to 14 feet. RQD = 13%
25						Slightly fractured from 13 feet. 100% Recovery from 14 to 19 feet. RQD = 100%
30						End boring at 19 feet.
						Neither groundwater nor seepage water encountered.

Plate A4.3

HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 08-4594

BORING NO. B4 DRIVING WT. 140 lb. START DATE 5/14/08  
 SURFACE ELEV. 156± DROP 30 in. END DATE 5/14/08

DEPTH	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						Clayey SILT (ML) - Brown, moist, with sand and gravel.
5			50/5"	70	20	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense to medium hard.
			50/5"	68	15	
			34	60	12	Dense at 8 feet.
10						MODERATELY WEATHERED BASALT (WM) - Gray, slightly vesicular, slightly fractured, medium hard to hard.
15			50/5"	Lost Recovery		Begin NX coring at 13 feet. 98% Recovery from 13 to 18 feet. RQD = 82%
20						End boring at 18.5 feet.
25						Neither groundwater nor seepage water encountered.
30						

Plate A4.4

HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 08-4594

BORING NO. B5 DRIVING WT. 140 lb. START DATE 5/15/08  
 SURFACE ELEV. 150± DROP 30 in. END DATE 5/15/08

DEPTH	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						Clayey SILT (ML) - Brown, moist, with sand and gravel.
5			54	62	14	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense.
10			48	97	2	MODERATELY WEATHERED BASALT (WM) - Gray, vesicular, highly fractured, medium hard. Begin NX coring at 5.5 feet. 85% Recovery from 5.5 to 9 feet. RQD = 13% Slightly fractured and medium hard to hard from 9 feet. 98% Recovery from 9 to 14 feet. RQD = 56%
15						98% Recovery from 14 to 19 feet. RQD = 82%
20						End boring at 19 feet.
25						Neither groundwater nor seepage water encountered.
30						

Plate A4.5

HIRATA & ASSOCIATES, INC.

BORING LOG

BORING NO. B6 DRIVING WT. 140 lb. START DATE 5/14/08 W.O. 08-4594  
 SURFACE ELEV. 155± DROP 30 in. END DATE 5/14/08

DEPTH	GRAVEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0			71	75	17	Clayey SILT (ML) - Brown, moist, with sand and gravel.
5			50/5*	91	10	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense.
10			58	106	2	MODERATELY WEATHERED BASALT (WM) - Gray, vesicular, fractured, medium hard to hard. Begin NX coring at 9 feet. 91% Recovery from 9 to 14 feet. RQD = 57%
15			10/No Penetration			Slightly fractured from 12 feet. 100% Recovery from 14 to 19 feet. RQD = 85%
20						End boring at 19 feet.
25						Neither groundwater nor seepage water encountered.
30						

Plate A4.6

HIRATA & ASSOCIATES, INC.

BORING LOG

BORING NO. B7 DRIVING WT. 140 lb. START DATE 5/15/08 W.O. 08-4594  
 SURFACE ELEV. 152± DROP 30 in. END DATE 5/15/08

DEPTH	GRAVEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0			66	65	15	Clayey SILT (ML) - Brown, moist, with sand and gravel.
5			44	59	9	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense.
10			50	88	10	
15			37	92	3	MODERATELY WEATHERED BASALT (WM) - Gray, vesicular, fractured, medium hard to hard. Begin NX coring at 9 feet. 93% Recovery from 9 to 14 feet. RQD = 78%
20			10/No Penetration			End boring at 19 feet.
25						Neither groundwater nor seepage water encountered.
30						

Plate A4.7

HIRATA & ASSOCIATES, INC.

BORING LOG

BORING NO. B8 SURFACE ELEV. 156± DRIVING WT. 140 lb. START DATE 5/16/08 W.O. 08-4594  
 DROP 30 in. END DATE 5/16/08

DEPTH (ft)	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						Clayey SILT (ML) - Brown, moist, with sand and gravel.
5			86/11" 10/No Penetration 10/No Penetration	70	19	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense to medium hard.
10			59	103	4	MODERATELY WEATHERED BASALT (WM) - Gray, vesicular, slightly fractured, medium hard to hard. Begin NX coring at 12.5 feet. 88% Recovery from 12.5 to 17.5 feet. RQD = 80%
15						100% Recovery from 17.5 to 20.5 feet. RQD = 100%
20						End boring at 20.5 feet.
25						Neither groundwater nor seepage water encountered.
30						

Plate A4.8

HIRATA & ASSOCIATES, INC.

BORING LOG

BORING NO. B9 SURFACE ELEV. 160± DRIVING WT. 140 lb. START DATE 5/20/08 W.O. 08-4594  
 DROP 30 in. END DATE 5/20/08

DEPTH (ft)	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						Clayey SILT (ML) - Brown, moist, with sand and gravel.
5			41 72	68 85	14 9	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, dense to medium hard.
10			83/11"	121	2	End boring at 10 feet.
15						Neither groundwater nor seepage water encountered.
20						
25						
30						

Plate A4.9

HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 08-4594

BORING NO. B10 DRIVING WT. 140 lb. START DATE 5/20/08  
 SURFACE ELEV. 162± DROP 30 in. END DATE 5/20/08

DEPTH	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
5			51	105	2	Clayey SILT (ML) - Brown, moist, with sand and gravel.
			51	104	2	HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, highly fractured, dense to medium hard.
			10/No Penetration			Begin NX coring at 5 feet. 88% Recovery from 5 to 10 feet. RQD = 0%
10						End boring at 10 feet.
15						Neither groundwater nor seepage water encountered.
20						
25						
30						

Plate A4.10

HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 08-4594

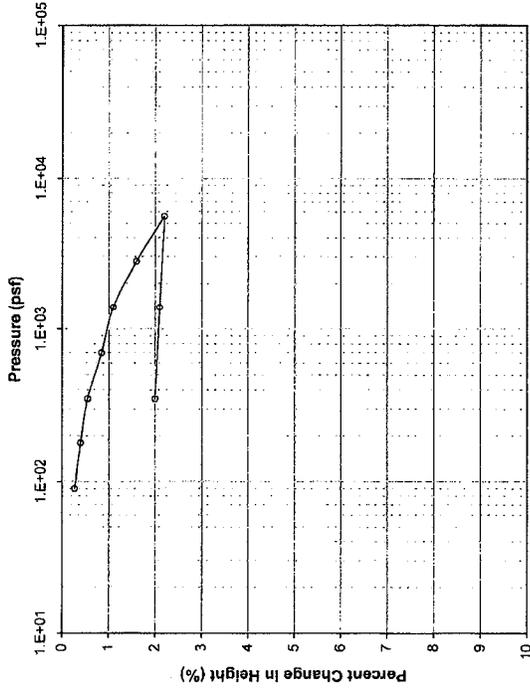
BORING NO. B11 DRIVING WT. 140 lb. START DATE 5/20/08  
 SURFACE ELEV. 168± DROP 30 in. END DATE 5/20/08

DEPTH	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
5			83/11"			Clayey SILT (ML) - Brown, moist, with sand and gravel.
			10/No Penetration			HIGHLY WEATHERED BASALT (WH) - Grayish brown, slightly moist, highly fractured, dense to medium hard.
			10/No Penetration			Begin NX coring at 5 feet. 80% Recovery from 5 to 10 feet. RQD = 0%
10						End boring at 10 feet.
15						Neither groundwater nor seepage water encountered.
20						
25						
30						

Plate A4.11

# APPENDIX B LABORATORY TESTING

## Consolidation Test Results



Sample Description: B1 Depth (ft): 3  
 Soil Description: Grayish brown highly weathered basalt

Moisture Content (%)	Dry Density (pcf)
Initial 3.7	89.6
Final 2.2	91.4

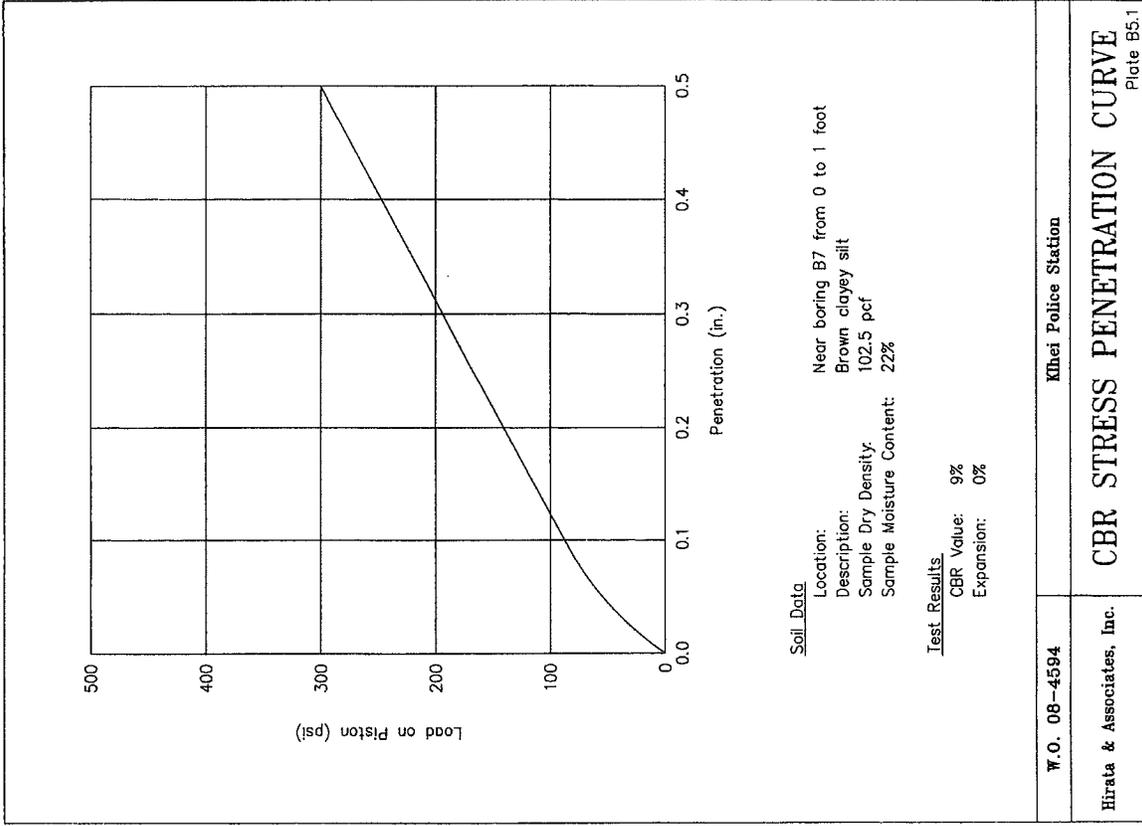
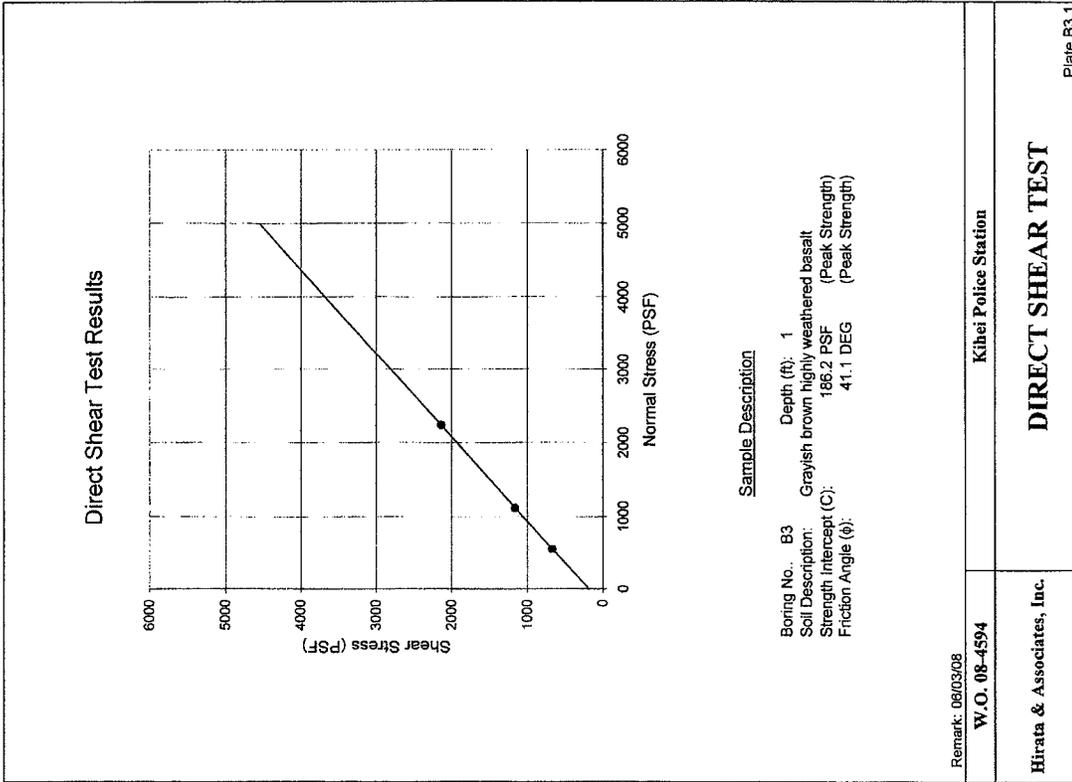
Remark: 6/5/08  
 W.O. 08-4594

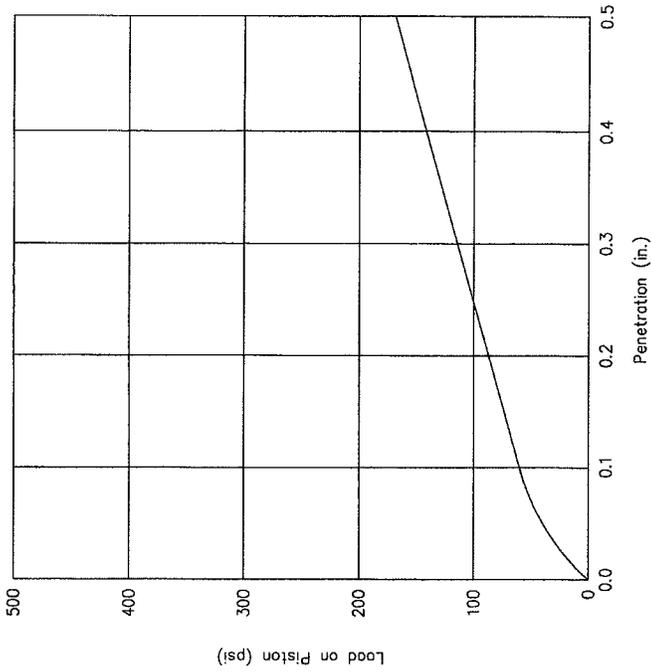
Kihei Police Station

Hirata & Associates, Inc.

## CONSOLIDATION TEST

Plate B2.1





Soil Data  
 Location: Near boring B11 from 0 to 1 foot  
 Description: Brown clayey silt  
 Sample Dry Density: 100.5 pcf  
 Sample Moisture Content: 22.5%

Test Results  
 CBR Value: 6%  
 Expansion: 0%

W.O. 08-4594

Kihei Police Station

Hirata & Associates, Inc. **CBR STRESS PENETRATION CURVE** Plate BS.2

# **APPENDIX C.**

## **Botanical and Fauna Study**

**BOTANICAL AND FAUNA SURVEYS**

**for the**

**KIHEI POLICE STATION PROJECT**

**KIHEI, MAUI, HAWAII**

**by**

**ROBERT W. HOB DY  
ENVIRONMENTAL CONSULTANT  
Kokomo, Maui  
June 2008**

**Prepared for: Munekiyo & Hiraga, Inc.**

**BOTANICAL AND FAUNA SURVEY  
KIHEI POLICE STATION PROJECT  
KIHEI, MAUI**

**INTRODUCTION**

The Kihei Police Station Project lies on a 10 acre parcel of land TMK (2) 2-2-002:070 (por.) in southern Kihei above Pi'ilani Highway and adjacent to the Kanani Road intersection. It is bounded on the west and north by these roads and by undeveloped pasture lands on the east and south. This study was initiated in fulfillment of environmental requirements of the planning process.

**SITE DESCRIPTION**

The terrain within the project area is rough and irregular. Soils are of the Waiakoa Extremely Stony Silty Clay, 3-25% slopes Series (WID2) (Foote et al,1972). Vegetation consists of dry grasses and scattered trees. Elevations range from 100 ft. to 180 ft. above sea level. Rainfall averages only 10 in. to 12 in. per year with the bulk falling during the winter months (Armstrong,1983).

**BIOLOGICAL HISTORY**

The project area was once a dry native savannah with an abundance of trees and shrubs such as wiliwili (*Erythrina sandwicensis*), 'ohe (*Reynoldia sandwicensis*) and 'a'ali'i (*Dodonea viscosa*) and a variety of other native grasses and vines. Over a century of cattle grazing and more recently browsing by axis deer (*Axis axis*) have greatly reduced the diversity and number of native plants and periodic wildfires have all but eliminated them. These have been replaced by the hardiest of non-native species that can survive both grazing and fire.

## **SURVEY OBJECTIVES**

This report summarizes the findings of a flora and fauna survey of the proposed Kihei Police Station Project which was conducted in June 2008.

The objectives of the survey were to:

1. Document what plant, bird and mammal species occur on the property or may likely occur in the existing habitat.
2. Document the status and abundance of each species.
3. Determine the presence or likely occurrence of any native flora and fauna, particularly any that are Federally listed as Threatened or Endangered. If such occur, identify what features of the habitat may be essential for these species.
4. Determine if the project area contains any special habitats which if lost or altered might result in a significant negative impact on the flora and fauna in this part of the island.
5. Note which aspects of the proposed development pose significant concerns for plants or for wildlife and recommend measures that would mitigate or avoid these problems.

# **BOTANICAL SURVEY REPORT**

## **SURVEY METHODS**

A walk-through botanical survey method was used following a route to ensure complete coverage of the area. Areas most likely to harbor native or rare plants such as gulches or rocky outcroppings were more intensively examined. Notes were made on plant species, distribution and abundance as well as terrain and substrate.

## **DESCRIPTION OF THE VEGETATION**

The entire project area is a dryland savannah consisting primarily of two dominant non-native species: buffelgrass (*Cenchrus ciliaris*) and kiawe (*Prosopis pallida*), that make up more than 99% of the total vegetation. Another 20 species of plants were recorded during the survey mostly along the margins of the property. Only two species of native plants were found: 'ilima (*Sida fallax*) and 'uhaloa (*Waltheria indica*). Both of these are common indigenous plants that are widespread in Hawaii as well as in other Pacific islands. The remaining species are all non-native plants that are of no particular environmental interest or concern.

## **DISCUSSION AND RECOMMENDATIONS**

The vegetation throughout the project area is dominated by non-native plant species. No Federally listed Endangered or Threatened plants (USFWS, 1999) were found on the property, nor do any plants proposed for such status occur here.

No wetlands occur on the property. Nothing remotely approaching the three essential criteria that define a Federally recognized wetland, namely 1) hydrophytic vegetation, 2) hydric soils and 3) wetland hydrology occur within this dry project area.

Because the vegetation on the site is dominated primarily by non-native plants and because there are no rare or protected native species within the project area, there is little of botanical concern and the proposed project is not expected to have a significant negative impact on the botanical resource in this part of Maui.

## PLANT SPECIES LIST

Following is a checklist of all those vascular plant species inventoried during the field studies. Plant families are arranged alphabetically within two groups: Monocots and Dicots. Taxonomy and nomenclature of the flowering plants (Monocots and Dicots) are in accordance with Wagner et al. (1999).

For each species, the following information is provided:

1. Scientific name with author citation
2. Common English or Hawaiian name.
3. Bio-geographical status. The following symbols are used:
  - endemic = native only to the Hawaiian Islands; not naturally occurring anywhere else in the world.
  - indigenous = native to the Hawaiian Islands and also to one or more other geographic area(s).
  - non-native = all those plants brought to the islands intentionally or accidentally after western contact.
4. Abundance of each species within the project area:
  - abundant = forming a major part of the vegetation within the project area.
  - common = widely scattered throughout the area or locally abundant within a portion of it.
  - uncommon = scattered sparsely throughout the area or occurring in a few small patches.
  - rare = only a few isolated individuals within the project area.

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>	<u>ABUNDANCE</u>
<b>MONOCOTS</b>			
<b>POACEAE (Grass Family)</b>			
<i>Cenchrus ciliaris</i> L.	buffelgrass	non-native	abundant
<i>Chloris barbata</i> (L.) Sw.	swollen fingergrass	non-native	rare
<i>Eleusine indica</i> (L.) Gaertn.	wiregrass	non-native	rare
<i>Eragrostis amabilis</i> (L.) Wight & Arnott	Japanese lovegrass	non-native	rare
<i>Eragrostis pectinacea</i> (Michx.) Nees	Carolina lovegrass	non-native	uncommon
<b>DICOTS</b>			
<b>AMARANTHACEAE (Amaranth Family)</b>			
<i>Alternanthera pungens</i> Kunth	khaki weed	non-native	rare
<i>Amaranthus palmeri</i> S. Watson	Palmer's amaranth	non-native	rare
<i>Amaranthus spinosus</i> L.	slender amaranth	non-native	rare
<b>ASTERACEAE (Sunflower Family)</b>			
<i>Flaveria trinervia</i> (Spreng.) C. Mohr	clustered yellowtops	non-native	rare
<i>Parthenium hysterophorus</i> L.	Santa Maria	non-native	rare
<i>Tridax procumbens</i> L.	coat buttons	non-native	rare
<i>Verbesina encelioides</i> (Can) Benth. & Hook.	golden crown-beard	non-native	rare
<b>BORAGINACEAE (Borage Family)</b>			
<i>Heliotropium procumbens</i> Mill.	-----	non-native	rare
<b>EUPHORBIACEAE (Spurge Family)</b>			
<i>Chamaesyce hirta</i> (L.) Millsp.	hairy spurge	non-native	uncommon
<b>FABACEAE (Pea Family)</b>			
<i>Desmanthus pernambucanus</i> (L.) Thellung	slender mimosa	non-native	rare

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>	<u>ABUNDANCE</u>
<i>Leucaena leucocephala</i> (Lam.) deWit	<i>koa haole</i>	non-native	rare
<i>Prosopis pallida</i> (Humb.&Bonpl.Ex. Willd.) Kunth	<i>kiawe</i>	non-native	abundant
LAMIACEAE (Mint Family)			
<i>Leonotis nepetifolia</i> (L.) R.Br.	lion's ear	non-native	uncommon
MALVACEAE (Mallow Family)			
<i>Sida ciliaris</i> L.	-----	non-native	rare
<i>Sida fallax</i> Walp.	<i>'ilima</i>	indigenous	uncommon
<i>Sida rhombifolia</i> L.	Cuban jute	non-native	rare
<i>Waltheria indica</i> L.	<i>'uhaloa</i>	indigenous	rare
ZYGOPHYLLACEAE (Creosote Bush Family)			
<i>Tribulus terrestris</i> L.	puncture vine	non-native	rare

# FAUNA SURVEY REPORT

## SURVEY METHODS

A walk-through survey method was conducted in conjunction with the botanical survey. All parts of the project area were covered. Field observations were made with the aid of binoculars and by listening to vocalizations. Notes were made on species abundance, activities and location as well as observations of trails, tracks scat and signs of feeding. In addition an evening visit was made to the area to record crepuscular activities and vocalizations and to see if there was any evidence of occurrence of the Hawaiian hoary bat (*Lasiurus cinereus semotus*) in the area.

## RESULTS

### MAMMALS

Two species of mammals were recorded from the project area during two site visits. Taxonomy and nomenclature follow Tomich (1986).

Axis deer (*Axis axis*) - Fresh tracks and droppings were observed on all parts of the property indicating a significant population. These deer range widely through the pastures above Kihei, but with the onset of the dry season they congregate in upper Kihei seeking lush vegetation within irrigated landscapes. They become active at night so are rarely seen.

Domestic cattle (*Bos taurus*) - Plenty of old sign was seen on the property. Grazing here is most prevalent during the winter and spring when the grass is green.

Other mammals likely to inhabit the property include Rats (*Rattus rattus*) and mice (*Mus domesticus*). These rodents feed on seeds, fruits and herbaceous vegetation in such habitats. Domestic and feral cats (*Felis catus*) as well as mongoose (*Herpestes auropunctatus*) would also be expected here. These carnivores hunt for rodents and birds in such areas.

A special effort was made to look for the native Hawaiian hoary bat which is listed as an Endangered species. These bats have been observed around the Waiakoa Stream estuary about 3 miles north of the property. When present in an area these bats can be easily identified as they forage for insects, their distinctive flight patterns clearly visible in the glow of twilight. No evidence of such activity was observed though visibility was excellent. This extremely dry habitat is poor habitat for these bats. In addition a bat detection device (Batbox IID) was employed, set to the

frequencies of 27,000 to 28,000 hertz which this species is known to use. No bats were detected using this device.

## **BIRDS**

Birdlife was rather sparse in this dry area due to a seasonal lack of insect activity, seeds and other food items. Just seven species of non-native birds were seen during two site visits on the property. Taxonomy and nomenclature follow American Ornithologists' Union (2005).

Spotted dove (*Streptopelia chinensis*) – Many of these large doves were seen within kiawe trees or flying over the property at all times of day.

Zebra dove (*Geopelia striata*) – Small groups of these small doves were seen in trees or feeding in small clearings on the ground.

Common myna (*Acridotheres tristis*) – A few pairs of these mynas were seen in trees or in flight over the property.

House finch (*Carpodacus mexicanus*) – Small groups of these finches were seen feeding in the kiawe trees during the morning survey.

African silverbill (*Lonchura cantans*) - One small flock of these small pale tan birds was seen in a kiawe tree during the evening survey.

Northern cardinal (*Cardinalis cardinalis*) – Three of these bright red birds were seen and heard calling during the evening survey.

Black francolin (*Francolinus francolinus*) – One black francolin was heard making its distinctive buzzing calls during the evening survey.

A few other non-native birds might be expected to occasionally use this property, but the area is not suitable as habitat for any of Hawaii's native forest birds.

## **INSECTS**

While insects in general were not tallied, one native Sphingid moth, Blackburn's sphinx moth (*Manduca blackburni*) has been put on the Federal Endangered species list and this designation requires special focus (USFWS 2000). Blackburn's sphinx moth occurs on Maui although it has not been found in this area. Its native host plants are species of 'aiea (*Nothocestrum*) and a non-native alternative host plant is tree tobacco (*Nicotiana glauca*). There are no 'aiea on or near the project area. None of these host species were found on the property and no Blackburn's sphinx moth or their larvae were observed.

## **CONCLUSIONS AND RECOMMENDATIONS**

The fauna species found on this property were entirely non-native. The habitat in its present state is unsuitable for native animal species. No Threatened or Endangered mammal, bird or insect species were found during the survey, nor were any found that are candidates for such status. No special habitats were identified on the property either.

Because of the above existing conditions there is nothing with respect to the fauna resources that is of significant environmental interest or concern. The proposed changes in land use should not have a negative impact on the fauna resources in this part of Maui.

No recommendations are deemed necessary or appropriate with respect to fauna resources on this property.

## ANIMAL SPECIES LIST

Following is a checklist of the animal species inventoried during the field work. Animal species are arranged in descending abundance within two groups: Mammals and Birds. For each species the following information is provided:

1. Common name
2. Scientific name
3. Bio-geographical status. The following symbols are used:
  - endemic = native only to Hawaii; not naturally occurring anywhere else in the world.
  - indigenous = native to the Hawaiian Islands and also to one or more other geographic area(s).
  - non-native = all those animals brought to Hawaii intentionally or accidentally after western contact.
  - migratory = spending a portion of the year in Hawaii and a portion elsewhere. In Hawaii the migratory birds are usually in the overwintering/non-breeding phase of their life cycle.
4. Abundance of each species within the project area:
  - abundant = many flocks or individuals seen throughout the area at all times of day.
  - common = a few flocks or well scattered individuals throughout the area.
  - uncommon = only one flock or several individuals seen within the project area.
  - rare = only one or two seen within the project area.

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>STATUS</u>	<u>ABUNDANCE</u>
<b><u>MAMMALS</u></b>			
Axis deer	<i>Axis axis</i>	non-native	common
Cattle	<i>Bos taurus</i>	non-native	uncommon
<b><u>BIRDS</u></b>			
Spotted dove	<i>Streptopelia chinensis</i>	non-native	common
Zebra dove	<i>Geopelia striata</i>	non-native	uncommon
Common myna	<i>Acridotheres tristis</i>	non-native	uncommon
House finch	<i>Carpodacus mexicanus</i>	non-native	rare
African silverbill	<i>Lonchura cantans</i>	non-native	rare
Northern cardinal	<i>Cardinalis cardinalis</i>	non-native	rare
Black francolin	<i>Francolinus francolinus</i>	non-native	rare

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# **APPENDIX D.**

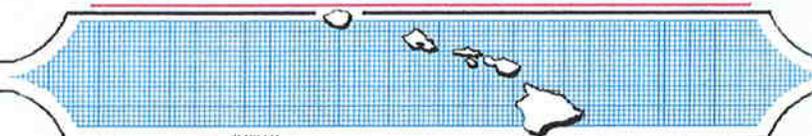
## **Archaeological Inventory Survey**

**AN ARCHAEOLOGICAL INVENTORY SURVEY REPORT  
ON 10 ACRES LOCATED IN  
KĪHEI, KAMA`OLE AHUPUA`A, MAKAWAO DISTRICT  
MAUI ISLAND, HAWAII  
[TMK (2) 2-2-002: 070 por.]**

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August 2008

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## **ABSTRACT**

At the request of Munekiyo & Hiraga, Inc. Scientific Consultant Services, Inc. (SCS) conducted an Archaeological Inventory Survey (AIS) on a 10-acre portion of an approximately 150-acre parcel of Maui County owned land located in Kihei, Kama'ole Ahupua'a, Makawao District, Maui Island, Hawai'i [TMK: (2) 2-2-02: 070 por.]. Field work commenced May 29, 2008 and was completed June 4, 2008. Two archaeological sites were located: 50-50-10-6521 (consisting of three features), and 50-50-10-6522 (also consisting of three features) were recorded for the first time during this study. These sites were strictly surface features associated with historic activities related to cattle ranching and WWII military training exercises.

Features of Site -6521 consist of a C-shape, L-shape, and V-shape rock enclosure related to historic military training activities; Site -6522 consists of two rectangular concrete slabs and a rock wall determined to be related to historic ranching. Limited subsurface testing conducted at these sites (totaling two Shovel Probes) did not lead to the identification of any subsurface cultural material of historic value. The identified sites comprise a mixture of military training remnants, and cattle ranching features located within the barren zone, where traditional Hawaiian habitation is understood to have been limited and temporary.

Both sites and all component features have been classified under Criterion D of the Hawaii State Historic Registry. No further mitigation is recommended as these sites have very little potential for providing further data beyond what is contained within this AIS report.

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## INTRODUCTION

At the request of Munekiyo and Hiraga, Inc., a land development planning firm, Scientific Consultant Services, Inc. (SCS) conducted an Archaeological Inventory Survey (AIS) on a 10-acre portion of a 150-acre parcel of located in Kīhei, Kama`ole Ahupua`a, Makawao District, Maui Island, Hawai`i [TMK: 2-2-02: 070 por.] (Figures 1 and 2).

This work was contracted by Munekiyo & Hiraga for land owner, Maui County, for the site of the proposed Kihei Police Station (Figure 3). This project is part of a master district plan with an integrated concept, whereby land use will be organized around a commercial and mixed-use village center to serve planned neighborhoods. A combination of commercial, light industrial, residential, recreational and public uses is anticipated. SCS archaeologist Ian Bassford, B.A. conducted the field work on May 29, 2008 through June 4, 2008 under the general supervision of Principal Investigator Michael Dega, Ph.D. Archaeological Inventory Survey was conducted to investigate the presence or absence of cultural remains in the form of archaeological structures and/or subsurface deposits.

This Archaeological Inventory Survey consisted of 100 percent systematic pedestrian survey of the project area, site recording, and limited subsurface testing. The total area subject to this assessment was composed of a 10-acre section of a parcel of land used for cattle ranching within recent decades. The results of this study include two new Sites 50-50-10-6521 and 50-50-10-6522 that consist of three features each—all associated with the historic era (*i.e.* WWII military training and ranching, respectively) (Figure 4). The parcel does not represent any Land Commission Award.

## PROJECT AREA DESCRIPTION

The project area is located in Kama`ole Ahupua`a, east of the Wailuku-Makawao boundary that cuts across the *ahupua`a*. It is bordered on the north by Keokea Ahupua`a and to the south by Paeahu Ahupua`a. The western boundary abuts Pi`ilani Highway. The entire parcel was once part of the Kaonoulu Ranch lands, and most recently existed as Pi`ilani Park. The parcel spans from a quarter mile to approximately one and a half miles inland of the coast within an area known in archaeological terms as the “barren zone”. The ground surface is slightly undulating and covered in sparse kiawe trees (*Prosopis pallida*) and low grasses (Figure 5). The ground surface also shows moderate signs of disturbance where portions of the land has been graded or grubbed in previous land tenure (Figure 6).



Figure 1: USGS Pu'u O Kali Quadrangle Showing the Project Area.

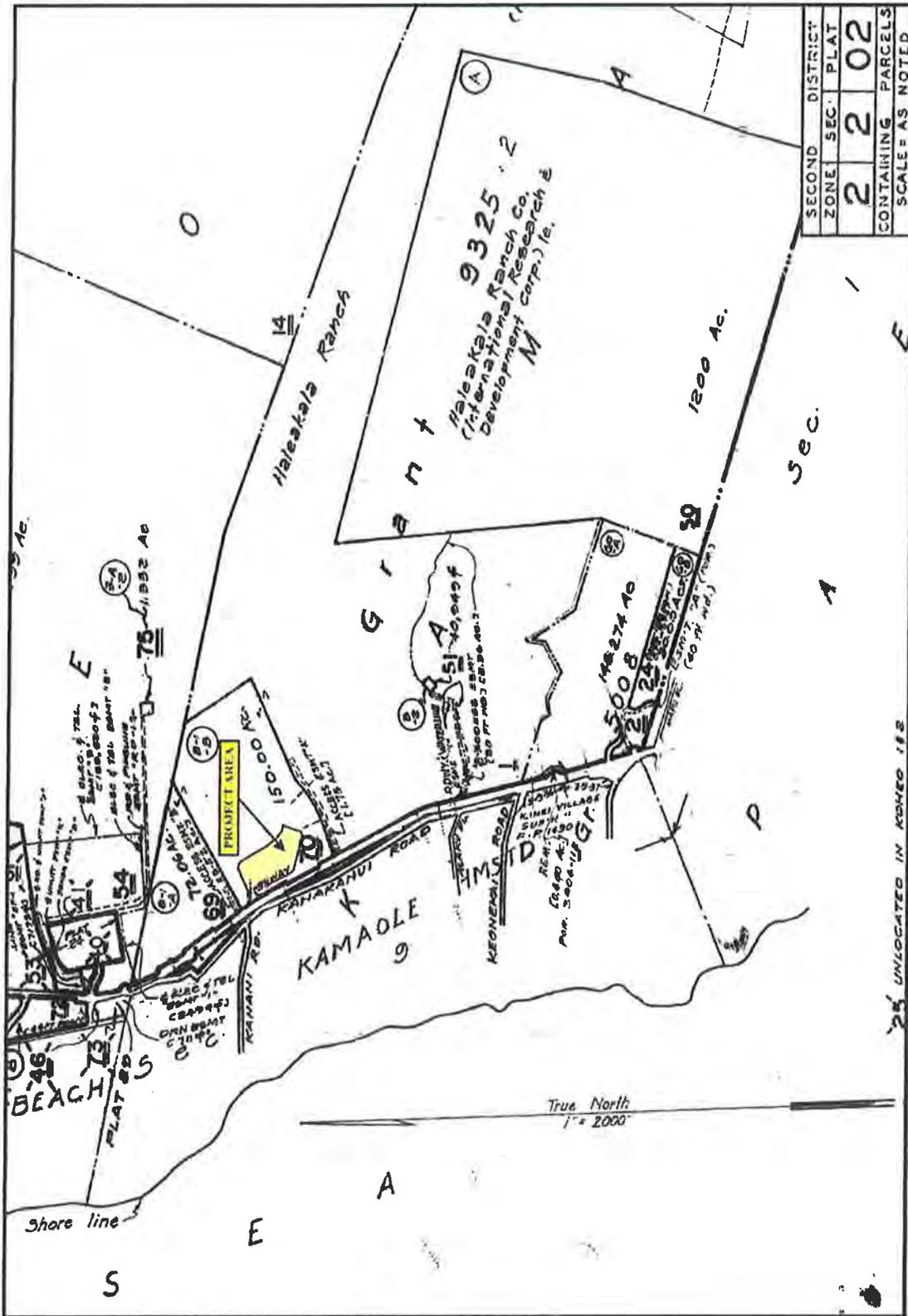


Figure 2: Tax Map Key [TMK] Showing the Project Area as a Portion of Parcel 70.

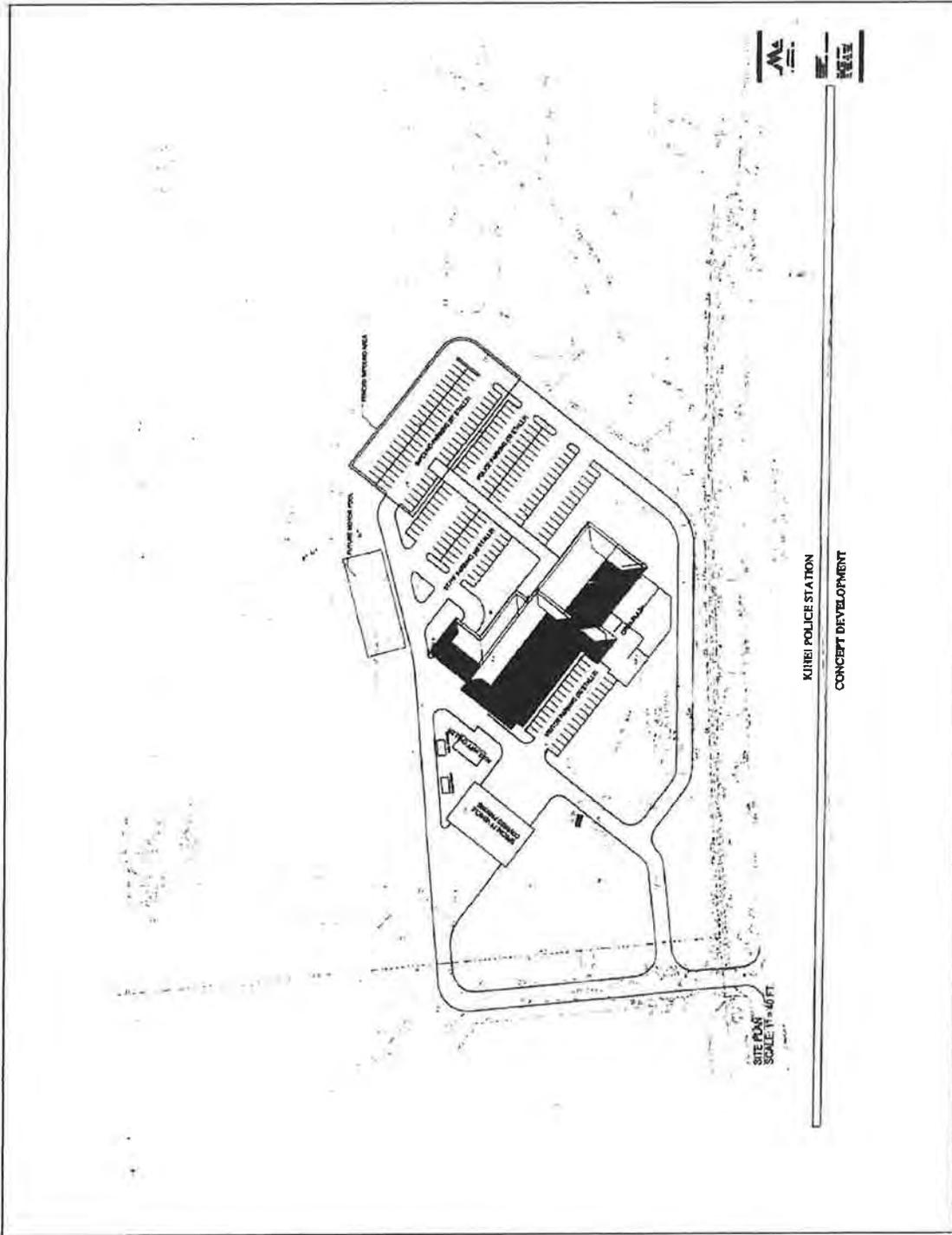


Figure 3: Site Plan View Map Showing the Proposed Building Plans Within the 10-acre Project Area.

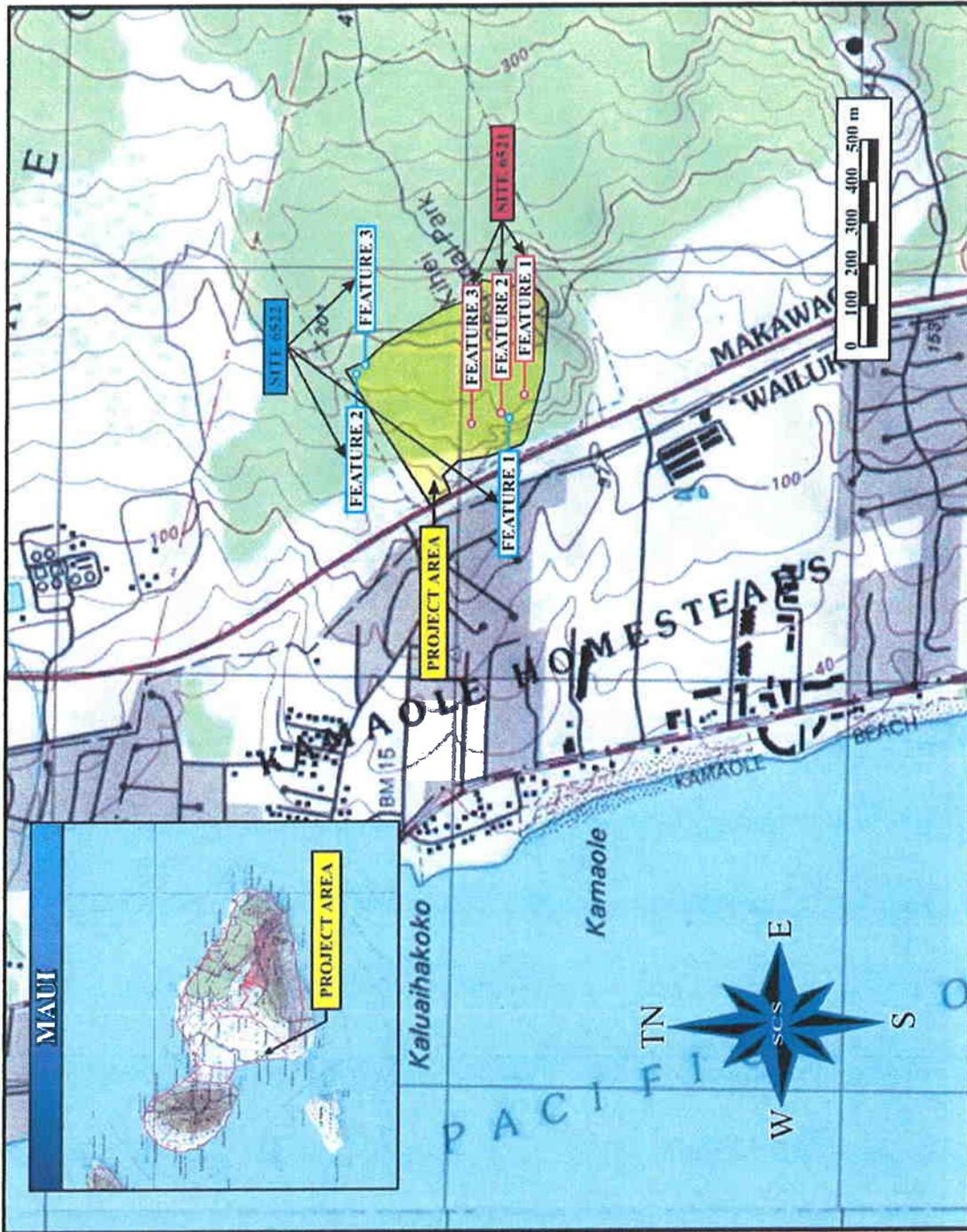


Figure 4: USGS Quad Showing Site Locations and Identified Features.



**Figure 5: Overview Photograph of the Project Area. View to East.**



**Figure 6: Overview Photograph of the Project Area Showing Signs of Bulldozing. View to South**

The project area soils are dominated by Waiakoa Extremely Stony Silty Clay Loam (WID2). This soil type is generally associated with highly eroded landscapes with shallow, 3 to 25 percent slopes and low precipitation (Foote *et al.* 1972: 126). Kīhei gets less than ten inches of rainfall per year (Armstrong 1983). The elevation ranges from 40 to 60 feet above mean sea level (amsl). The southern flank of the project area is marked by Kama'ole Gulch. While there is a general absence of perennial streams throughout the project area environs, Kama'ole Gulch does support a perennial stream during seasons of particularly heavy rainfall.

## **BARREN ZONE**

In geographical and physiographical terms, the barren zone is an intermediary zone between direct coastline and back beach areas to upland forests and more mountainous environments. The barren zone is a medial zone that appears to have been almost exclusively transitory, or at best, intermittently occupied through time. Intermittent habitation loci, as defined by surface midden scatters or small architectural features (*i.e.*, C-shapes and alignments) dominate the few documented traditional-period site types in the area through time. Post-Contact features are generally limited to walls and small alignments, respectively associated with ranching and military training in the area.

The barren zone was an intermediary region between verdant upland regions and the coastline. Apparently, agricultural endeavors were practically non-existent in the barren zone and tool procurement materials (basalt and wood) were selected from other locales as well. Sediment regimes in the area are shallow, most often overlying bedrock, and perennial water sources are virtually non-existent.

Cordy (1977) divided the Kīhei (inclusive of Kaonoulu) area into three environmental zones (or subzones when one considers the entire *ahupua`a*): coastal, transitional/barren, and inland. The current project location occurs in the transitional or barren zone: the slopes back of the coast with less than 30 inches of rainfall annually (Cordy 1977:4).

This barren zone is perceived as dry and antagonistic to permanent habitation. Use of the area would primarily have been intermittent or transitory, particularly as the zone could have contained coastal-inland trails and would have marked an intermediary point between the two more profitable eco-zones. The region remains hostile to permanent habitation, only having been "conquered" in recent times through modern adaptation (*i.e.*, water feed systems, etc.).

Based on general archaeological and historic research, the barren zone was not subject to permanent or expansive population until recent times. This intimates that population pressure

along the coast was minimal or non-existent in the Kīhei coastal area through time. As such, architectural structures associated with permanent habitation sites and/or ceremonial sites are not often identified in the area. The prevailing model that temporary habitation / temporary use sites predominate in the barren zone has been authenticated further by recent research.

### **CULTURAL HISTORICAL CONTEXT**

The island of Maui ranks second in size of the eight main islands in the Hawaiian Archipelago. The island was formed by two volcanoes, Mount Kukui in the west and Haleakalā in the east. The younger of the two volcanoes, Haleakalā, soars 2,727 m (10,023 feet) above sea level and embodies the largest section of the island. Unlike the amphitheater valleys of West Maui, the flanks of Haleakalā are distinguished by gentle slopes. Although it receives more rain than its counterpart in the east, the permeable lava flows of the Honomanū and Kula Volcanic Series prevent the formation of rain-fed perennial streams. The few perennial streams found on the windward side of Haleakalā originate from springs located at low elevations. Valleys and gulches were formed by intermittent water run-off.

The environment factors and resource availability heavily influenced pre-Contact settlement patterns. Although an extensive population was found occupying the uplands above the 30-inch rainfall line where crops could easily be grown, coastal settlement was also common (Kolb *et al.* 1997). The existence of three fishponds at Kalepolepo, north of the project area, and at least two *heiau* (shrine, temple, place of worship) identified near the shore confirm the presence of a stable population relying mainly on coastal and marine resources.

Agriculture may have been practiced behind the dune berms in low-lying marshland or in the vicinity of Keālia pond. It is suggested that permanent habitation and their associated activities occurred from A.D. 1200 to the present in both the uplands and coastal region (*Ibid.*).

### **PAST POLITICAL BOUNDARIES**

Traditionally, the division of Maui's lands into districts (*moku*) and sub-districts was performed by a *kahuna* (priest, expert) named Kalaiha'ōhia, during the time of the *ali'i* Kaka'alaneo (Beckwith 1979:383; Fornander places Kaka'alaneo at the end of the fifteenth century or the beginning of the sixteenth century [Fornander 1919-20, Vol. 6:248]). Land was considered the property of the king or *ali'i ai moku* (the *ali'i* who eats the island/district), which he held in trust for the gods. The title of *ali'i ai moku* ensured rights and responsibilities to the land, but did not confer absolute ownership. The king kept the parcels he wanted; his higher

chiefs received large parcels from him and, in turn, distributed smaller parcels to lesser chiefs. The *maka`āinana* (commoners) worked the individual plots of land.

In general, several terms were used to delineate various land sections. A district (*moku*) contained smaller land divisions (*ahupua`a*), which customarily continued inland from the ocean and upland into the mountains. Extended household groups living within the *ahupua`a* were able to harvest from both the land and the sea. Ideally, this situation allowed each *ahupua`a* to be self-sufficient by supplying needed resources from different environmental zones (Lyons 1875:111). The *`ili`āina* or *`ili* were smaller land divisions next in importance to the *ahupua`a* and were administered by the chief who controlled the *ahupua`a* in which it was located (*ibid*:33; Lucas 1995:40). The *mo`o`āina* were narrow strips of land within an *`ili*. The land holding of a tenant or *hoa`āina* residing in an *ahupua`a* was called a *kuleana* (Lucas 1995:61). The project area is located in the *ahupua`a* of Ka`ono`ulu, which translated means literally “the desire for breadfruit” (Pukui *et al.*:86).

### **TRADITIONAL SETTLEMENT PATTERNS**

The Hawaiian economy was based on agricultural production and marine exploitation, as well as raising livestock and collecting wild plants and birds. Extended household groups settled in various *ahupua`a*. Within the *ahupua`a*, residents were able to harvest from both the land and the sea. Ideally, this situation allowed each *ahupua`a* to be self-sufficient by supplying needed resources from different environmental zones (Lyons 1875:111).

During pre-Contact times, there were primarily two types of agriculture, wetland and dry land, both of which were dependent upon geography and physiography. River valleys provided ideal conditions for wetland *kalo* (*Colocasia esculenta*) agriculture that incorporated pond fields and irrigation canals. Other cultigens, such as *kō* (sugarcane, *Saccharum officinarum*), *mai`a* (banana, *Musa* sp.), and *`uala* (sweet potato, *Ipomoea batatas*) were also grown. This was the typical agricultural pattern seen during traditional times on all the Hawaiian Islands (Kirch and Sahlins 1992, Vol. 1:5, 119; Kirch 1985). Agricultural development on the leeward side of Maui was likely to have begun early in what is known as the Expansion Period (AD 1200–1400, Kirch 1985). According to Handy (1940: 159), there was “continuous cultivation on the coastal region along the northwest coast” of Maui. He writes:

On the south side of western Maui the flat coastal plain all the way from Kihei and Ma`alaea to Honokahua, in old Hawaiian times, must have supported many fishing settlements and isolated fishermen’s houses, where sweet potatoes were grown in the sandy soil or red

lepo [soil] near the shore. For fishing, this coast is the most favorable on Maui, and, although a considerable amount of taro was grown, I think it is reasonable to suppose that the large fishing population, which presumably inhabited this leeward coast, ate more sweet potatoes than taro with their fish... [ibid]

There is little specific information pertaining directly to Kīhei, which was originally a small area adjacent to a landing built in the 1890s (Clark 1980). Presently, Kīhei consists of a six-mile section along the coast from the town of Kīhei to Keawakapu. Scattered amongst the agricultural and habitation sites were places of cultural significance to the *kama`āina* of the district including at least two *heiau*. In ancient times, there was a small village at Kalepolepo based primarily on marine resources. It was recorded that occasionally the blustery Kaumuku Winds would arrive with amazing intensity along the coast (Wilcox 1921).

There were several fishponds in the vicinity of Kīhei; Waiohuli, Ka`ono`ulu-kai, and Kalepolepo Pond (Site 50-50-09-1288), which is also known by the ancient name of Kō`ie`ie Pond (Kolb *et al.* 1997). Constructed on the boundary between Ka`ono`ulu and Waiohuli Ahupua`a, these three ponds were some of the most important royal fishponds on Maui. The builder of Kalepolepo and two other ponds (Waiohuli and Ka`ono`ulu-kai) has been lost in antiquity, but they were reportedly rebuilt at least three times through history, beginning during the reign of Pi`ilani (1500s) (*ibid*; Cordy 2000).

Oral tradition recounts the repairing of the fishponds during the reign of Kiha-Pi`ilani, the son of the great chief Pi`ilani, who had bequeathed the ponds to Umi, ruler of Hawai`i Island. Umi's *konohiki* (land manager) ordered all the people from Maui to help repair the walls of Kalepolepo's fishponds. A man named Kikau protested that the repairs couldn't be done without the assistance of the *menehune* who were master builders (Wilcox 1921:66-67). The *konohiki* was furious and Kikau was told he would die once the repairs had been made. Ka`ono`ulu-kai was the first to be repaired. When the capstone was carried on a litter to the site, the *konohiki* rode proudly on top of the rock as it was being placed in the northeast corner of the pond. When it was time for repairs on Waiohuli-kai, the *konohiki* did the same. As the last pond, then known as Ka`ono`ulu-kai, was completed, the *konohiki* once again rode the capstone to its resting place. Before it could be put into position, the capstone broke throwing both the rock and *konohiki* into the dirt. The workers reportedly said "Ua *konohiki* Kalepolepo, ua eku i ka lepo," or, "the manager of Kalepolepo, one who roots in the dirt" (*ibid*:66). That night a tremendous storm threw down the walls of the fishponds. The *konohiki* implored Kikau to help him repair the damage. Kikau called the *menehune* who rebuilt the walls in one night. Umi sent for Kikau who lived in the court of Waipi`o Valley from then on. The region of Ka`ono`ulu-kai and Ka`ono`ulu-kai fishpond became known as Kalepolepo fishpond (*ibid*).

The Kalepolepo fishponds were rebuilt by Kekaulike, chief of Maui in the 1700s, at which time it supplied *'ama'ama* (mullet) to Kahekili II. Again, it was restored by Kamehameha I when he ruled as governing chief over Maui, and for the last time in the 1840s, when prisoners from Kaho'olawe penal colony were sent to do repairs (Kamakau 1961; Wilcox 1921). At this time, stones were taken from Waiohuli-kai pond for the reconstruction of Kalepolepo. It was here at Kalepolepo that Kamehameha I reportedly beached his victorious canoes after subduing the Maui chiefs. The stream draining into Keālia pond (north of the project area) became sacred to royalty and *kapu* to commoners (Stoddard 1894).

Trails extended from the coast to the mountains, linking the two for both economic and social reasons. A trail known as the *alanui* or "King's trail" built by Kihapi'ilani, extended along the coast passing through all the major communities between Lāhainā and Mākena, including Kīhei. Kolb noted that two traditional trails extended through Ka'ono'ulu. One trail, named "*Kekuawaha'ula'ula*" or the "red-mouthed god", went from Kīhei inland to Ka'ono'ulu. Another, the Kalepolepo trail, began at the Kalepolepo fishpond and continued to upland Waiohuli. These trails were not only used in the pre-Contact era, but were expanded to accommodate wagons bringing produce to the coast in the 1850s (Kolb *et al.* 1997:61).

## **WESTERN CONTACT**

Early records, such as journals kept by explorers, travelers and missionaries, Hawaiian traditions that survived long enough to be written down, and archaeological investigations, have assisted in the understanding of past cultural activities. Unfortunately, early descriptions of this portion of the Maui coast are brief and infrequent. Captain King, Second Lieutenant on the *Revolution* during Cook's third voyage briefly described what he saw from a vantage point of "eight or ten leagues" (approximately 24 miles) out to sea as his ship departed the islands in 1779 (Beaglehole 1967). He mentions Pu'u Ōla'i, south of Kīhei, and enumerates the observed animals, thriving groves of breadfruit, the excellence of the *taro*, and describes the sugarcane as being of an unusual height. Seen from this distance and the mention of breadfruit suggest the uplands of Kīpahulu-Kaupo and 'Ulupalakua were his focus.

In the ensuing years, LaPérouse (1786), Nathaniel Portlock and George Dixon, (also in 1786), sailed along the western coast, but added little to our direct knowledge of Kīhei. During the second visit of Vancouver in 1793, his expedition becalmed in the Ma'alaea Bay close to the project area. (A marker commemorating this visit is located across from the Maui Lu Hotel). He reported:

The appearance of this side of Mowee was scarcely less forbidding than that of its southern parts, which we had passed the preceding day. The shores, however, were not so steep and rocky, and were mostly composed of a sandy beach; the land did not rise so very abruptly from the sea towards the mountains, nor was its surface so much broken with hills and deep chasms; yet the soil had little appearance of fertility, and no cultivation was to be seen. A few habitations were promiscuously scattered near the waterside, and the inhabitants who came off to us, like those seen the day before, had little to dispose of. [Vancouver 1984:852]

Archibald Menzies, a naturalist accompanying Vancouver stated, "... we had some canoes off from the latter island [Maui], but they brought no refreshments. Indeed, this part of the island appeared to be very barren and thinly inhabited" (Menzies 1920:102). According to Kahekili, then chief of Maui, the extreme poverty in the area was the result of the continuous wars between Maui and Hawai`i Island causing the land to be neglected and human resources wasted (Vancouver 1984:856).

### **THE MĀHELE**

In the 1840s a drastic change in traditional land tenure resulted in a division, or Māhele, of island lands. This system of private ownership was based on western law. While a complex issue, many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kamehameha III (Kamehameha III) was forced to establish laws changing the traditional Hawaiian economy to that of a market economy (Kuykendall Vol. I, 1938:145 footnote 47, 152, 165–6, 170; Daws 1968:111; Kelly 1983:45; Kame`eleihiwa 1992:169–70, 176).

Among other thing, foreigners demanded private ownership of land to insure their investments (Kuykendall Vol. I, 1938:138, 145, 178, 184, 202, 206, 271; Kame`eleihiwa 1992:178; Kelly 1998:4). Once lands were made available and private ownership was instituted the *maka`āinana* (commoners) were able to claim the plots on which they had been cultivating and living, if they had been made aware of the foreign procedures (*kuleana* lands, Land Commission Awards, LCA). These claims could not include any previously cultivated or presently fallow land, *`okipū* (on O`ahu), stream fisheries or many other resources necessary for traditional survival (Kelly 1983; Kame`eleihiwa 1992:295; Kirch and Sahlins 1992). The awarded parcels were called Land Commission Awards. If occupation could be established through the testimony of two witnesses, the petitioners were awarded the claimed LCA, issued a Royal Patent number, and could then take possession of the property (Chinen 1961: 16). Fifty-five LCA claims were made for land in Ka`ono`ulu.

As western influence grew, Kalepolepo, west of the project area became the important provisioning area. Europeans were now living or frequently visiting the coast and several churches and missionary stations were established. A Mr. Halstead left medical school on the East coast of the continent to become a whaler and after marrying the granddaughter of Issac Davis, settled in Kalepolepo on land given him by Kamehameha III (Kolb *et al.* 1997). His residence and store situated at Kalepolepo landing was known as the Koa House having been constructed of *koa* logs brought from the uplands of Kula. The store flourished due to the whaling and potato industry and provided an accessible port for exported produce. Several of Hawai'i's ruling monarchs stayed at the Koa House, including Kauikeaouli (Kamehameha III), Kamehameha the IV, Lot Kamehameha (V), and Lunalilo. After viewing the surroundings, Wilcox stated, "...Kalepolepo was not so barren looking a place. Coconut trees grew beside pools of clear warm water along the banks of which grew taro and ape..." (1921:67). However, by 1887 this had changed. Wilcox continues:

...the Kula mountains had become denuded of their forests, torrential winter rains were washing down earth from the uplands, filling with silt the ponds at Kalepolepo...ruins of grass huts [were] partly covered by drifting sand, and a few weather-beaten houses perched on the broad top of the old fish pond wall at the edge of the sea, with the Halstead house looming over them dim and shadowy in the daily swirl of dust and flying sand..." [*ibid*]

As early as 1828, sugar cane was being grown commercially on Maui (Speakman 1981:114). Sugar was established in the Makawao area in the late 1800s and by 1899, the Kihei Plantation Company (KPC) was growing cane in the plains above Kihei. In 1908, the Kihei Plantation was absorbed by the Hawaiian Commercial and Sugar Company (HC&SC); the new-formed company continued cultivating what had been the KPC fields into the 1960s. A 200-foot-long wharf was constructed in Kihei at the request of Maui plantation owners and farmers and served inter-island boats for landing freight and shipping produce to Honolulu (Clark 1980). In 1927, Alexander and Baldwin became the agents for the plantation (Condé and Best 1973). A landing was built at Kihei around 1890.

### **PREVIOUS ARCHAEOLOGY**

SCS, and others, have more recently conducted numerous projects in the vicinity of the present project area. Several studies have been conducted in association with development of the Maui Research and Technology Park and the Elleair Maui Golf Club (Kennedy 1986; Hibbard 1994; Chaffee *et al.* 1997; McGerty *et al.* 2000; Sinoto *et al.* 2001; Tome and Dega 2002;

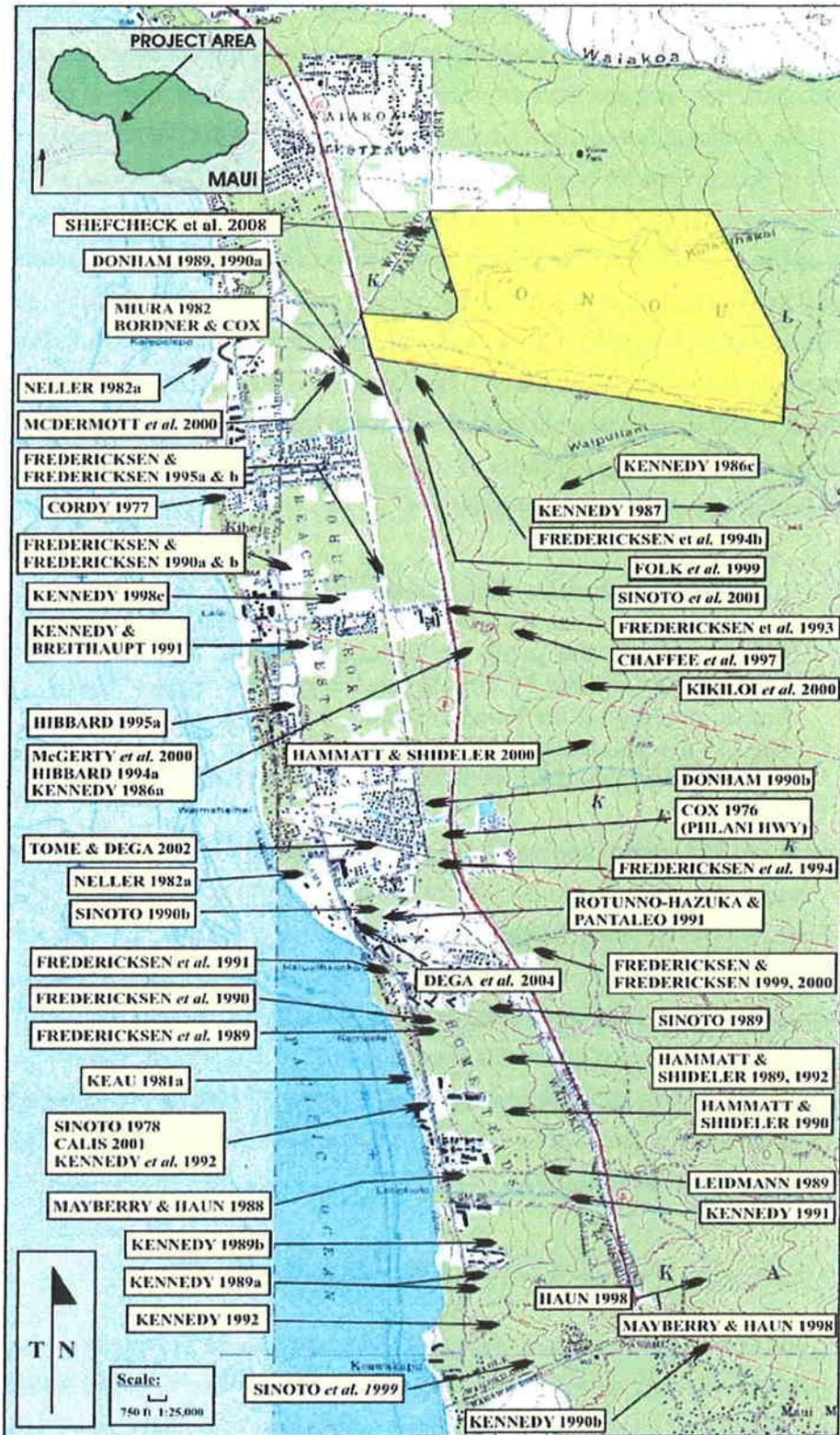


Figure 7: USGS Map Showing Locations of Previous Archaeological Investigations.

Monahan 2003, Hibbard 1994; Chaffee *et al.* 1997; McGerty *et al.* 2000; Sinoto *et al.* 2001; Tome and Dega 2002; Monahan 2003).

In more recent investigations (Shefcheck *et al.* 2008), an Inventory Survey work on a 516.32-acre parcel forty archaeological sites were identified and recorded. Eight of the forty sites were associated with pre-Contact activities and consisted of temporary rock shelters with petroglyph components, enclosures, platforms, a mound and a wall. Historic sites found during this work pertained to agriculture and military training activities.

Recently in 2007, Scientific Consultant Services, Inc. (SCS) conducted an Archaeological Field Inspection of three proposed sites for the proposed future site of Kīhei High School (Bassford and Dega). During this work the current 150-acre project parcel was surveyed, and thirteen surface architectural features were identified. The features identified included mounds, enclosures, walls, and petroglyphs. A majority of the features identified on the parcel during this Field Inspection were tentatively interpreted as potential prehistoric/early historic sites. Thus it was recommended that testing be conducted to confirm the age and function of said features.

Kennedy (1986) conducted an archaeological reconnaissance of the entire 150.032 acres of the then-proposed Maui Research and Technology Park (TMK:2-2-02, since changed to 2-2-24). Kennedy's study, which did not include subsurface testing (excavation), concluded that no archaeological sites or features were located within the project area.

Chaffee *et al.* (1997) conducted an Archaeological Inventory Survey, including subsurface testing, of a portion of the Maui Research and Technology Park, within the area investigated by Kennedy (1986). Three sites consisting of ten archaeological features were identified. The features included remnant terraces, stone alignments, a mound, and a modified outcrop. All of the sites were interpreted as agricultural in function with the exception of a rock mound that may have functioned as a religious feature.

Monahan (2003) conducted an Archaeological Inventory Survey, including subsurface testing, of a 28.737-acre portion of the Maui Research and Technology Park, within the area investigated by Kennedy (1986). Other than one surface feature, a small arrangement of stacked boulders interpreted as a 'push pile,' this survey yielded no evidence of historic or prehistoric significance

Theresa Donham conducted an Archaeological Reconnaissance Survey of the Haleakalā Greens Subdivision area (Hibbard 1994). She identified a low, circular rock mound, a historical site with multiple features on the crest of a prominent ridge, a linear rock mound or wall remnant, a rock-filled terrace outlined with a low, rock wall, and other modifications along a rock outcrop. Shell midden was observed on the surface inside an enclosure.

McGerty *et al.* (2000) surveyed 15 selected areas within the Elleair Maui Golf Club, and identified five archaeological sites (State Site Nos. 50-50-10-5043, -5044, -5045, -5046, and -5047) containing a total of seven surface features. The surface features were interpreted as agricultural terraces, perhaps dating from the pre-Contact period, and C-shaped rock formations (fighting positions) built during World War II training. Ten excavation units placed within these features yielded no cultural material.

Sinoto *et al.* (2001) conducted an Archaeological Inventory Survey of a parcel adjacent to the subject property. No archaeological or historical sites or features were identified.

Tome and Dega (2002) conducted an Archaeological Inventory Survey along the northeastern flank of the Elleair Maui Golf Club property. They identified a historical ranching corral and a short agricultural wall, collectively designated State Site No. 50-50-10-5233. No other structures or subsurface deposits were identified. No traditional Native Hawaiian sites or features were identified. Another Inventory Survey along the southern flank of the Elleair Maui Golf Course (Dega 2003) failed to yield any archaeological or historical features.

Scientific Consultant Services (SCS), Inc. conducted Archaeological Inventory Survey (Monahan 2004) on two undeveloped lots totaling approximately 56.647 acres near the Elleair Golf Course in Kīhei, Waiohuli and Ka'ono'ulu Ahupua'a, Wailuku (Kula) District, Kīhei, Maui Island, Hawai'i [TMK: 2-2-24: Portion 12 and 13]. A pedestrian survey and subsurface testing was performed in advance of a proposed residential project near the Elleair Golf Course. Four surface features consisting of stacked basalt stones were located within the project area; each was assigned a separate state site number. Test excavations yielded buried cultural material consistent with traditional Native Hawaiian activities at three of the four sites (Sites 50-50-10-5506, -5507, and -5509). Excavation at the fourth site (-5508)—a C-shaped rock pile consistent with a World War II military training feature—did not yield any subsurface evidence. The discovery of three traditional Native Hawaiian sites in this area is significant, as previous studies have generally failed to document any such activity. One of these sites (-5509) yielded a modern radiocarbon date ( $0 \pm 50$  BP), but its context is questionable and it may not be associated with

the buried artifacts. Two other sites (-5506 and -5507) did not yield charcoal, although both contained buried traditional artifacts and midden. No additional archaeological work was recommended in the project area (Monahan 2004).

As may be gleaned from this praxis of archaeological studies for the barren zone, site expectation and site density is low for the area. Even large-scale surveys at times have failed to document sites of any time period in this dry area. A majority of the pre-Contact population of Kīhei was settled along the coastline, nearer resources, while lands above 2,000 ft. amsl. were also heavily occupied from the c. A.D. 1400s. Thus, the ‘barren zone’ became a medial zone between a coastal and inland population. Coupling the lack of major water resources and the shallow depths of the soils, the barren zone became an infrequent occupation area. Given the paucity of significant sites in the barren zone, however, the sites that are identified in this zone become much more significant.

### **PROJECT AREA EXPECTATIONS**

The current project area falls within the barren zone. Archaeological reconnaissance and inventory survey work in the barren zone have yielded only a modest amount of evidence for traditional and historic-period activity. Documented sites in the general area primarily include agricultural terraces and short walls, C-shaped structures (military period), and historic ranching features (walls, corrals).

As the project area is located within the barren zone, it was not expected to yield many, if any, traditional-type sites. Previous archaeology in the area (McGerty *et al.* 2000; ) attests to the likelihood for encountering numerous sites relating to military activity on the parcel. Historic agricultural sites, such as rock mounds, roads, and berms were also anticipated for this site, as it has long been a working ranch.

### **METHODOLOGY**

The current study entailed full systematic pedestrian survey of the 10 –acre project area, thorough recordation of all sites and component features and limited test excavations. Survey was conducted in 10 to 15 meter transects in a north/south (160 –340 ) orientation throughout the project area. Site recording consisted of site descriptions and assessments, plan view mapping of most sites in metric measurements with compass (see Results for exceptions), and site photography.

Limited subsurface testing was conducted in both sites. These manual excavations consisted of the placement of 0.35 m by 0.35 m shovel probes (SP) within site features that were particularly thought to have the most potential for providing additional data. These excavations were plotted on the plan view map for each corresponding site, and recorded by subsurface layer documentation.

No archaeological materials were recovered from either site. Lab work and analysis was therefore limited to the computer drafting of plan view map illustrations from the field, and the cataloging of field forms and project photographs all of which are being curated at the SCS Laboratory in Honolulu.

## **RESULTS**

During the full, systematic pedestrian survey phase of work, two previously unrecorded archaeological sites, Site -6521 and -6522, comprising three features each, were identified. Both sites consist of surface features related to post-Contact, Historic-era activities, including military training and cattle ranching. Site designations for the six features were evaluated based on temporal and functional affiliations of feature types.

Site descriptions are presented below, and include details of corresponding excavations within the site section. Site significance assessments, evaluated according to the criteria established for the Hawaii State Register of Historic Places follows in the DISCUSSION AND RECOMMENDATIONS section.

### **SITE 50-50-10-6521**

Site -6521 (see Figure 4) consists of three features including Feature 1, a C-shape enclosure; Feature 2, a V-shape wall/enclosure; and Feature 3, a L-shape wall—giving the site an overall dimension of approximately 150.00 meters by 50.00 meters. This site is located in the western half of the project area. A detailed description of individual features and significance assessments, as established by the State Inventory of Historic Places (SIHP) of Hawaii, follows below.

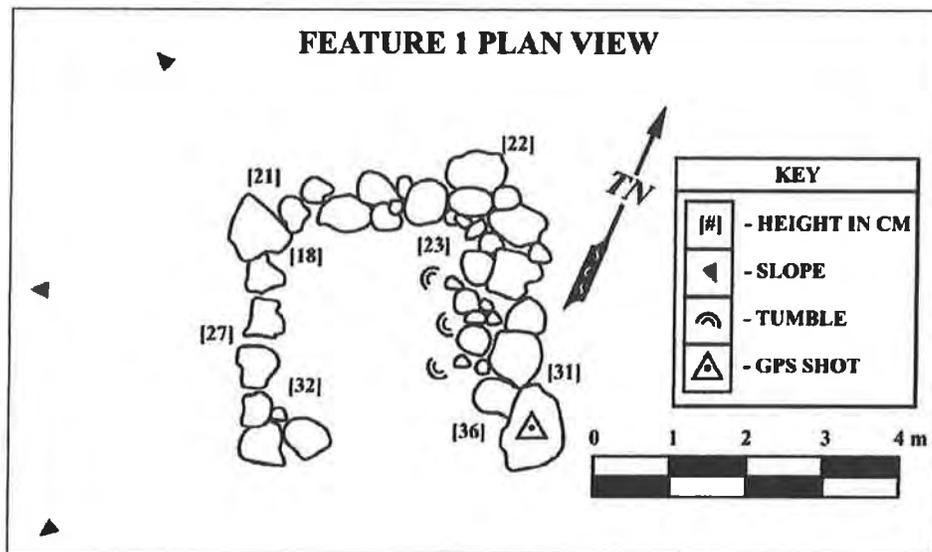


Figure 8: Plan View of Feature -6521.

### Feature 1

This C-shape enclosure feature was roughly constructed of large cobbles and medium boulders, and measured 4.00 m by 4.00 m with a wall thickness of 0.40 – 0.50 m, and a height of 0.36 m at one course high (Figure 8). The feature displayed a rudimentary construction indicative of limited temporary use, and signs of disturbance where the feature had been tumbled at the east interior wall, probably the consequence of cattle grazing in the area in the recent past.

Because of its improvised construction, and close proximity to other similarly constructed features, Feature 1 was designated a military structure likely used for training exercises and as so is significant under Criterion D as an historic property representative of WWII era military training activities in the history of Maui and the State of Hawai'i as a whole.

### Feature 2

This V-shape enclosure wall was constructed of loosely stacked medium to large cobbles, and few small boulders up to five courses high (Figure 9). The structure measured 3.00 m long by 0.67 m high with a wall thickness of 0.75 m. Similar to Feature 1, this structures' makeup characterized a spontaneous composition intended for temporary use on a short term basis and thus, determined to be a military structure related to training activities. The feature is considered

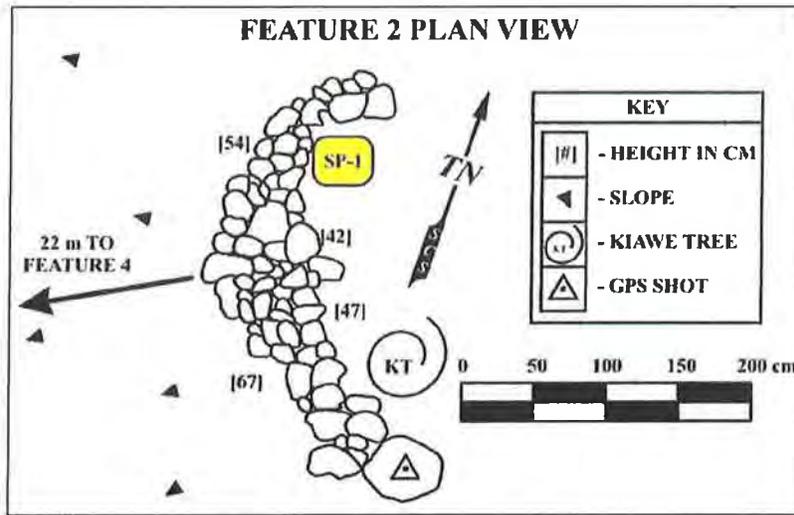


Figure 9: Plan view map of Site -6521 Feature 3.

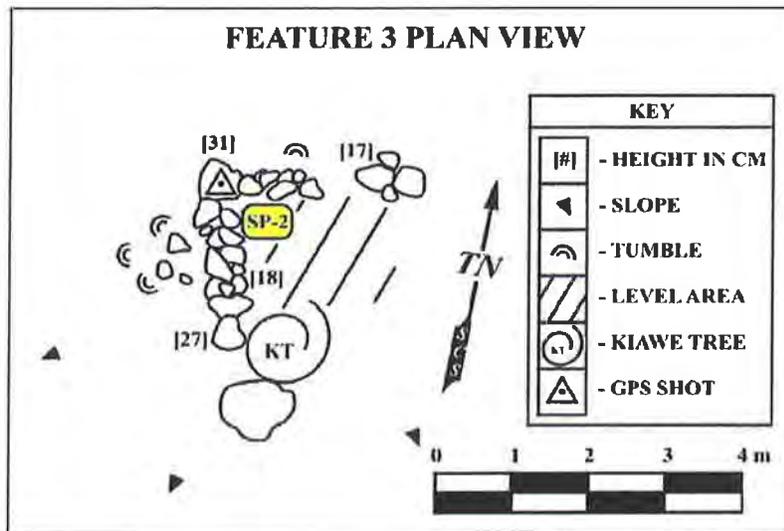


Figure 10: Plan view of Site -6522 Feature 3 and Excavation Location.

significant under Criterion D as an historic property. One Shovel Probe was excavated at this Feature (SP-1)

### **Feature 3**

This Feature is an L-shape wall that was constructed in a similar fashion to that of Features 1 and 2, of loosely stacked medium to large cobbles up to three courses high (Figure 10). The feature dimensions were 2.50 m long by 1.50 m wide with a wall thickness of 0.75 m, and a height of 0.12 m – 0.31 m. The feature showed signs of disturbance at the north and west exterior walls, a result of cattle activity. A single Shovel Probe was excavated at this feature (SP-2). From this feature's loosely built form and size, it can be gathered that its construction was improvised, and that its intended purpose was of a temporary nature not meant for long term use. The feature was a military training structure probably used as a gunner position or temporary shelter, and is therefore significant under Criterion D as an historic property representative of WWII era military training activities in Maui and the State of Hawai'i.

### **Subsurface Testing**

A Shovel Probe (SP-1) that measured 0.35 meters by 0.35 meters was placed at the north interior end of Feature 2, (Figure 11; see Figures 9). The Excavation of this unit yielded a single stratigraphic layer consisting of dark reddish brown (2.5 YR 2.5/4), compact, silty clay with a high gravel content. The excavation was terminated at 0.13 meter below surface (mbs) at which point bedrock was exposed. SP-1 was sterile of any cultural or historic materials.

A Shovel Probe (SP-2) was excavated at Feature 3, in the structure's northwest interior corner (see Figure 10). The excavation had a radius measurement of 0.35 m and exposed a single, shallow soil layer that measured 0.14 mbs before terminating at bedrock. The Layer I soil was compact silty clay-loam, very dark brown (7.5 YR 2.5/3) in color, and contained a high gravel content. Shovel Probe-2 did not yield any cultural or historic materials.

### **SITE 50-50-10-6522**

Site -6522 (see Figure 4) is comprised of three features including Feature 1 rock wall, and Features 2 and 3 concrete poured slabs. The overall site covers a vast area and is best depicted in Figure 4 above. Feature 1 is situated in the west/southwest part of the project area adjacent to features of Site -6522. Features 2 and 3 are located in the northeast perimeter of the project area within 50 meters of each other.

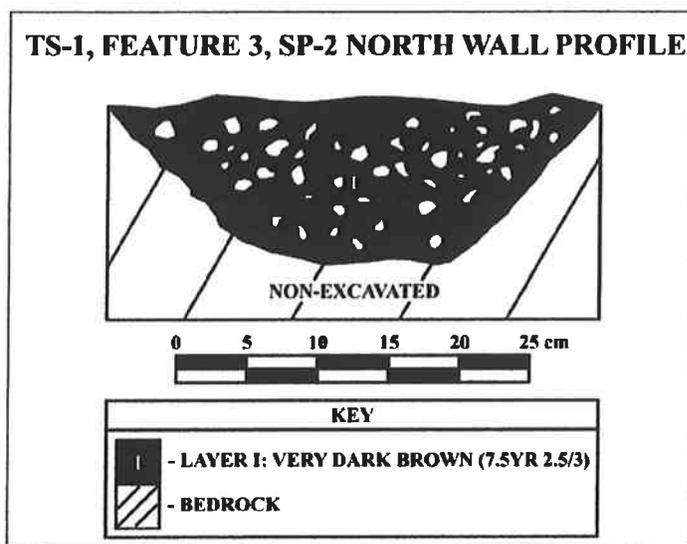


Figure 11: North Wall Profile of SP-2 at Feature 3.

The feature typology of this site relates temporally to the transition between the historic to modern period in Hawaii (mid 20<sup>th</sup> century) and features are functionally associated with agricultural activities (*i.e.* cattle ranching). This site was not tested for subsurface deposits as no features warranted subsurface testing. The feature descriptions presented below detail the form and function of each feature.

#### Feature 1

Feature 1 is a rock wall that measured more than 31.00 m long, with an approximate wall thickness of 0.80 m and a height ranging from 0.25 m to 1.00 m (Figure 12). The wall is constructed of medium to large cobbles and small boulders stacked up to seven courses high. Though severely collapsed in some segments, the wall meanders through the south portion of the parcel following the slope contour and continues into the neighboring parcel in an overall north/south direction.

This rock wall, like the numerous rock walls known of the Kaonoulu area (see the PREVIOUS ARCHAEOLOGY section), is typical of the agricultural ranching walls of the historic period; it likely functioned as a boundary for cattle. This feature is therefore interpreted as relating to historic agriculture. This feature is significant under Criterion D as a feature of historic agricultural activities in Maui and the State of Hawai`I in general.



Figure 12: Photograph of Site -6522, Feature 1. View to South.



Figure 13: Photograph of Site -6522, Feature 2. View to East.

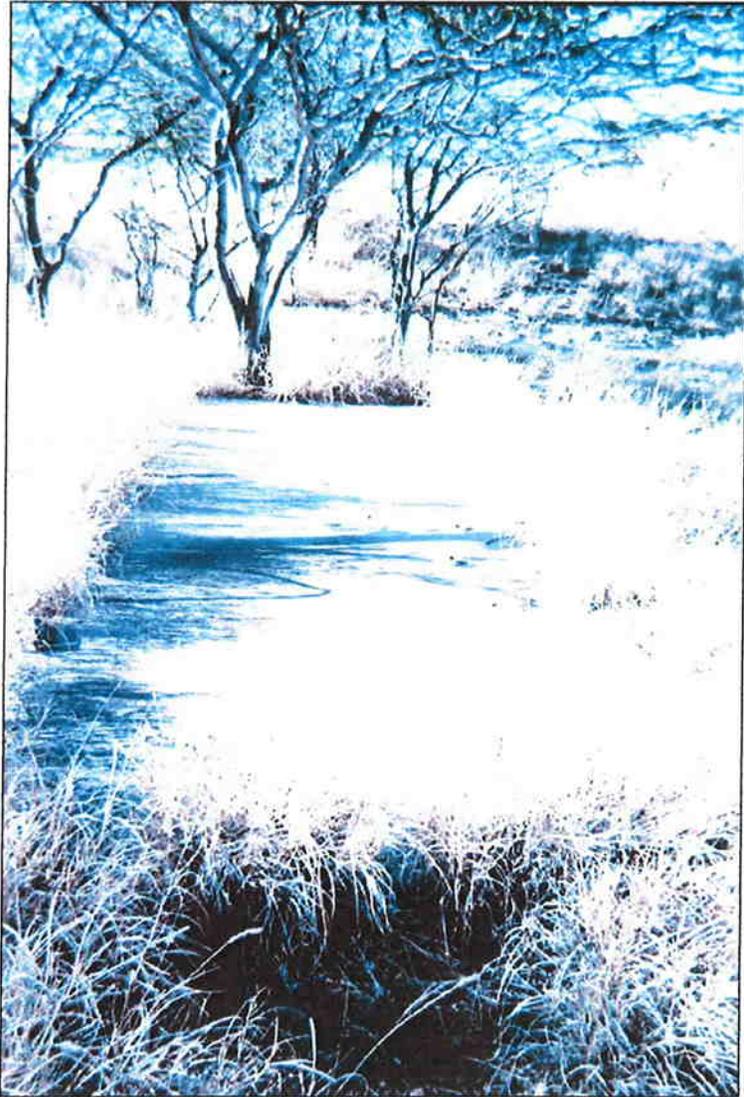


Figure 14: Photograph of Site -6522, Feature 3. View Northeast

### **Feature 2**

This feature is a rectangular concrete slab and is one of two (Features 2 and 3) identified, in the north eastern portion of the project area (Figure 13). Feature 2 was a rectangular concrete poured slab that measured approximately 6.00 meters by 3.00 meters. The slab, late-historic (*ie.* 1950s in its construction), is interpreted as an agricultural feature possibly having functioned as a component for the maintenance of livestock or other agricultural properties. This feature is significant under Criterion D as a feature of historic agricultural activities in the State of Hawai'i.

### **Feature 3**

This rectangular concrete poured slab along with the above mentioned Feature 2 was located in the northwest corner of the project area (Figure 14). It measured 3.00 meters by 2.00 meters. This concrete slab, although smaller in size, shares the same characteristics of quality, form and function as Feature 2. Thus, Feature 3 relates to historic agricultural activities and is considered significant under Criterion D as an historic property.

### **SITE SIGNIFICANCE ASSESSMENTS**

These sites have been evaluated for significance according to the criteria established for the Hawai'i State Register of Historic Places. The five criteria are presented below:

- Criterion A: Site is associated with events that have made a significant contribution to the broad patterns of our history
- Criterion B: Site is associated with the lives of persons significant to our past
- Criterion C: Site is an excellent site type; embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual construction
- Criterion D: Site has yielded or has the potential to yield information important in prehistory or history
- Criterion E: Site has cultural significance to an ethnic group; examples include religious structures, burials, major traditional trails, and traditional cultural places

Both sites -6521 and -6522 recorded during this work contain three surface features each. All of these features were among those previously identified by an Archaeological Field Inspection (Bassford and Dega 2007) from which came the recommendation of further work at an Inventory Survey level.

The findings of the current Archaeological Inventory Survey have determined that the sites are not associated with pre-Contact occupation, and in view of the negative results of

subsurface testing, have documented that these sites have little potential of providing further information pertinent to the history of Maui and/or the State of Hawai'i as a whole.

Site -6521's constituent features are a C-shape and V-shape enclosures, and L-shaped wall associated with military training. Excavations resulted in shallow soil deposits overlying bedrock containing no cultural deposits.

Similarly, Site 6522 consisted of a rock wall (Feature 1; see Figure 12), and two concrete poured slabs (Features 2 and 3; see Figures 13 and 14). These features are not unusual of the ranch lands and display characteristics of the agricultural activities (*i.e.* possible Water tank platform, cattle ranching) that once occurred in the area. Both sites and all component features have been classified under Criterion D of the Hawaii State Historic Registry. No further mitigation is recommended as these sites have very little potential for providing further data beyond the current AIS.

### **DISCUSSION AND RECOMMENDATIONS**

Archaeological Inventory Survey for this 10 acre portion of a 150-acre parcel resulted in the documentation of two post-Contact, historic era Sites (-6521 and -6522). These sites represent historic agricultural and military training features. Military and historic agricultural features are dispersed throughout the former ranch lands of this area. These include roads, walls, military C-shapes (used in training exercises), and many rock mounds associated with clearing and/or military activities.

The historic sites found during this work dated to late-Historic period (1940s to 1950s) agriculture and military training activities. The majority of features found were rock structures distributed between both site -6521 and -6522. The rock wall (Feature 1) of Site -6522 is typical of cattle ranching that occurred on the parcel until the recent past. The two concrete poured slab features (Site -6522 Features 2 and 3) represent a modern-historic ranching feature typical of agricultural components.

The features of Site -6521 relating to military training activities were present in the project area in relative proximity to one another. A total of 3 sites relate to military training on the parcel. Among these, 1 C-shaped structure, 1 V-shaped enclosure, and 1 L-shaped structure were identified. These features appear to be hastily constructed and seem to have been built for short term use. Traditional-style C-shapes are neatly stacked and faced to several courses high,

whereas the C-shapes and others documented here are usually a single course of stones arranged in a curved alignment. Often these C-shapes display a depression in the center of the feature, where a training soldier might have been positioned, armed with a weapon. These features, like the C-shape and V-shape, were not built to withstand time and the elements, but rather for limited use in a training exercise.

The findings reported herein were generally congruent with expectations for the project area. Very few, if any, traditional sites were anticipated, and none were identified within the project area. Fair densities of historic military and agricultural related sites were documented here, as was generally anticipated. Additionally, the excavations that occurred at Features 2 and 3 of Site -6521, demonstrated the absence of cultural material in these shallow subsurface deposits. Both sites significant under Criterion D have yielded the information within this report and no further archaeological mitigation is recommended within the project area.

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# **APPENDIX D-1.**

## **State Historic Preservation Division Acceptance Letter**

LINDA LINGLE  
GOVERNOR OF HAWAII



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 RESOURCE MANAGEMENT

RUSSELL V. TSUJI  
FIRST DEPUTY

KEN C. KAWAHARA  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOARDING AND CATERING/RECREATION  
BUREAU OF COUNTY AFFAIRS  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAWAHAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

October 13, 2008

Michael F. Dega, Ph.D.  
Scientific Consultant Services, Inc.  
711 Kapiolani Boulevard, Suite 975  
Honolulu, Hawai'i 96813

LOG NO: 2008.4501  
DOC NO: 0810PC14  
Archaeology

Dear Dr. Dega:

**SUBJECT: Chapter 6E-8 Historic Preservation Review – REVISED  
Archaeological Inventory Survey on Ten Acres Located in Kihei  
Kama'ole Ahupua'a, Makawao District, Island of Maui, Hawai'i  
TMK: (2) 2-2-002:070 por.**

Thank you for the opportunity to review this revised report, which our staff received on October 10, 2008 (Pestana, Bassford and Dega 2008): *An Archaeological Inventory Survey Report on Ten Acres Located in Kihei...* Scientific Consultant Services, Inc.

The report was first reviewed by SHPD staff on October 2 of 2008 (SHPD LOG NO: 2008.3801; DOC NO: 0810PC03), resulting in a series of requested revisions. The most recent version of the report was reviewed in PDF format to confirm completion of those revisions and suggestions.

The survey area as described in the report consists of a 10 acre portion of TMK (2) 2-2-002:070, which is the proposed location for a new Kihei police station. Fieldwork, undertaken between May 29 and June 4 of 2008, was comprised of a 100% pedestrian survey and included the excavation of two 0.35 m x 0.35 m shovel probes. Two new sites, now on record as SIHP #50-50-10-6521 Features 1 - 3 [three enclosures associated with military training activities] and -6522 Features 1 - 3 [two concrete slabs and a rock wall associated with ranching] were identified.

The report now contains the required information as specified in HAR §13-276-5 regarding the documentation of inventory level fieldwork in general and is acceptable.

As stated in the initial report review letter, with respect to the Hawai'i Register of Historic Places, we concur that SIHP #50-50-10-6521 and -6522 are significant under Criterion D for their potential to yield information important to history or prehistory.

We also agree that enough such information was collected from the sites during the current inventory survey and that no further archaeological work, such as data recovery, or mitigation such as precautionary monitoring, is warranted for any components thereof.

Now that the current inventory survey report has received final acceptance pursuant to HAR §13-276, please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter

Michael F. Dega, Ph.D.  
Page 2

and a text-searchable PDF version on CD to the attention of "SHPD Library" at the Kapolei SHPD office.

Aloha,

A handwritten signature in cursive script that reads "Nancy A. McMahon".

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  
Maui CRC, Dept. of Planning, 250 S. High Street, Wailuku, Hawai'i 96793

# **APPENDIX E.**

## **Cultural Impact Assessment**

**A CULTURAL IMPACT ASSESSMENT  
OF APPROXIMATELY 10 ACRES IN KĪHEI,  
KAMA'OLE AHUPUA'A, MAKAWAO DISTRICT,  
MAUI ISLAND, HAWAII  
[TMK 2-2-02:070 por]**

Prepared By:  
**Leann McGerty, B.A.**  
And  
**Robert L. Spear, Ph.D.**  
June 2008

Prepared For:  
**Munekiyo and Hiraga, Inc.**  
**305 High Street., Suite 104**  
**Wailuku, HI 96793**

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## INTRODUCTION

At the request of Munekiyo and Haraga, Inc., Scientific Consultant Services, Inc. (SCS) conducted a Cultural Impact Assessment, on approximately 10 acres (TMK: 2-2-02:070 por.) located in Kīhei, Kama`ole Ahupua`a, Makawao District, Maui Island (Figure 1 and 2). Documents submitted by Munekiyo and Haraga Inc., describe the proposed development of the Kīhei Police Station.

The Constitution of the State of Hawai`i clearly states the duty of the State and its agencies is to preserve, protect, and prevent interference with the traditional and customary rights of native Hawaiians. Article XII, Section 7 requires the State to “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” (2000). In spite of the establishment of the foreign concept of private ownership and western-style government, Kamehameha III (Kauikeaouli) preserved the peoples traditional right to subsistence. As a result in 1850, the Hawaiian Government confirmed the traditional access rights to native Hawaiian *ahupua`a* tenants to gather specific natural resources for customary uses from undeveloped private property and waterways under the Hawaiian Revised Statutes (HRS) 7-1. In 1992, the State of Hawai`i Supreme Court, reaffirmed HRS 7-1 and expanded it to include, “native Hawaiian rights...may extend beyond the *ahupua`a* in which a native Hawaiian resides where such rights have been customarily and traditionally exercised in this manner” (Pele Defense Fund v. Paty, 73 Haw.578, 1992).

Act 50, enacted by the Legislature of the State of Hawaii (2000) with House Bill 2895, relating to Environmental Impact Statements, proposes that:

...there is a need to clarify that the preparation of environmental assessments or environmental impact statements should identify and address effects on Hawaii’s culture, and traditional and customary rights... [H.B. NO. 2895].

Act 50 requires state agencies and other developers to assess the effects of proposed land use or shore line developments on the “cultural practices of the community and State” as part of the HRS Chapter 343 environmental review process (2001). Its purpose has broadened, “to promote and protect cultural beliefs, practices and resources of native Hawaiians [and] other ethnic groups, and it also amends the definition of ‘significant effect’ to be re-defined as “the sum of effects on the quality of the environment including actions that are...contrary to the



Figure 1: USGS Quadrangle Map Showing Project Area.

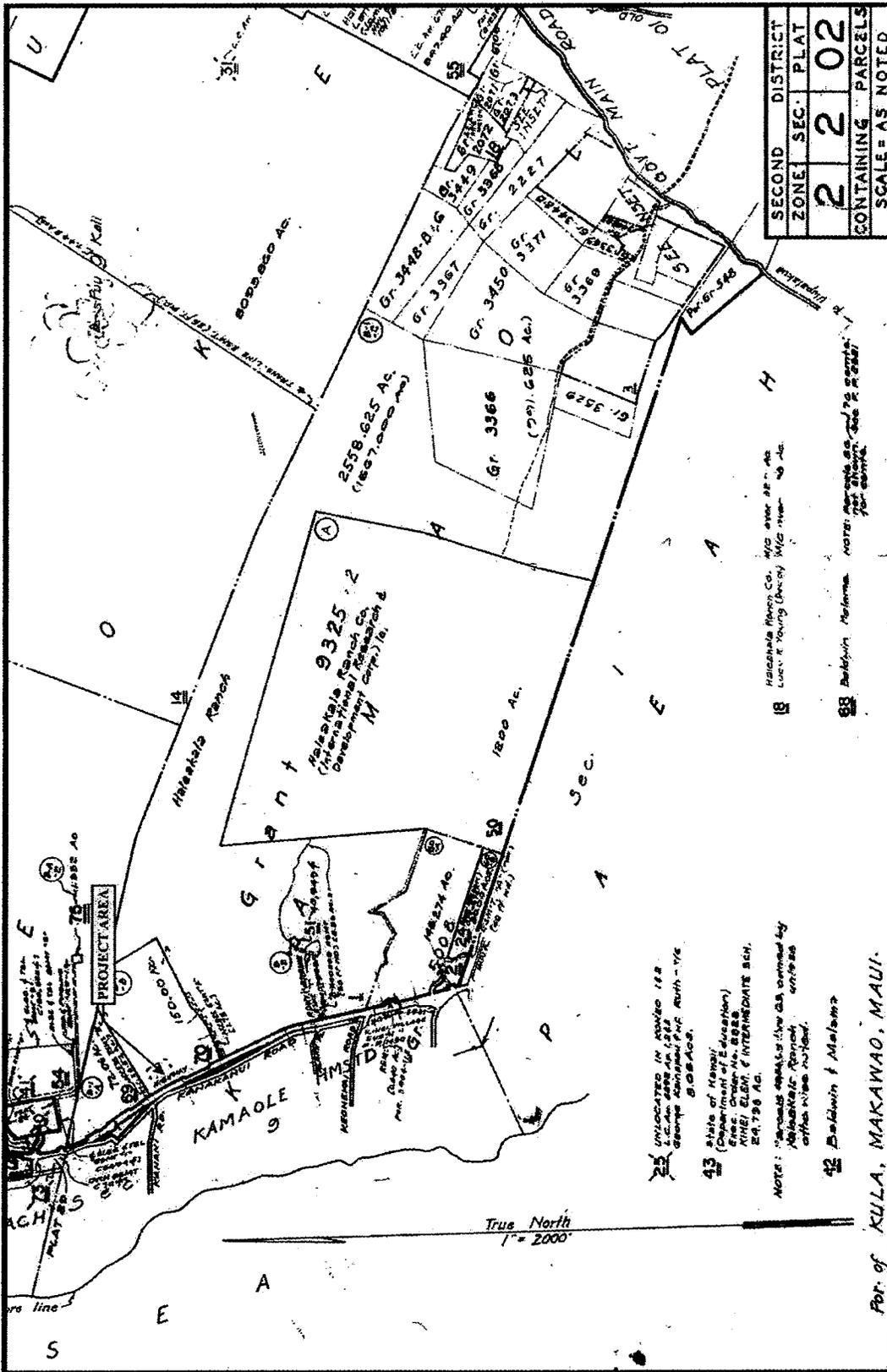


Figure 2: Tax Map Key [TMK] Showing Project Area.

State's environmental policies...or adversely affect the economic welfare, social welfare, or cultural practices of the community and State" (H.B. 2895, Act 50, 2000).

Thus, Act 50 requires an assessment of cultural practices to be included in the Environmental Assessments and the Environmental Impact Statements, and to be taken into consideration during the planning process. The concept of geographical expansion is recognized by using, as an example, "the broad geographical area, e.g. district or *ahupua`a*" (OEQC 1997). It was decided that the process should identify 'anthropological' cultural practices, rather than 'social' cultural practices. For example, *limu* (edible seaweed) gathering would be considered an anthropological cultural practice, while a modern-day marathon would be considered a social cultural practice.

The purpose of a Cultural Impact Assessment is to identify the possibility of any cultural resources associated with different Ethnic groups within a project area, and then assessing the potential for impacts on these resources from the proposed project. The CIA is not a document of in depth archival-historical land research, or a record of oral family histories unless they contain information about cultural resources that might be impacted by a proposed project. Cultural resources cover a broad range of categories and may include values, rights, beliefs, objects, records, properties, and stories associated with the project area (H.B. 2895, Act 50, 2000).

According to the Guidelines for Assessing Cultural Impacts established by the Hawaii State Office of Environmental Quality Control (OEQC 1997):

The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religions and spiritual customs. The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both manmade and natural, which support such cultural beliefs.

The meaning of "traditional" was explained in *National Register Bulletin*:

"Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations', usually orally or through practice. The traditional cultural significance of a historic property, then is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. . . . [Parker and King 1990:1]

## **METHODOLOGY**

This Cultural Impact Assessment was prepared in accordance with the methodology and content protocol provided in the Guidelines for Assessing Cultural Impacts (OEQC 1997). In outlining the “Cultural Impact Assessment Methodology”, the OEQC stated:

...information may be obtained through scoping, community meetings, ethnographic interviews and oral histories... (1997).

The report contains archival and documentary research, as well as communication with organizations having knowledge of the project area, its cultural resources, and its practices and beliefs. This Cultural Impact Assessment was prepared in accordance with the methodology and content protocol provided in the Guidelines for Assessing Cultural Impacts (OEQC 1997). The assessment concerning cultural impacts should address, but not be limited to, the following matters:

- (1) a discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints or limitations with might have affected the quality of the information obtained;
- (2) a description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken;
- (3) ethnographic and oral history interview procedures, including the circumstances under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained;
- (4) biographical information concerning the individuals and organizations consulted, their particular expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area;
- (5) a discussion concerning historical and cultural source materials consulted, the institutions and repositories searched, and the level of effort undertaken, as well as the particular perspective of the authors, if appropriate, any opposing views, and any other relevant constraints, limitations or biases;
- (6) a discussion concerning the cultural resources, practices and beliefs identified, and for the resources and practices, their location within the broad geographical area in which the proposed action is located, as well as their direct or indirect significance or connection to the project site;

- (7) a discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area, affected directly or indirectly by the proposed project;
- (8) an explanation of confidential information that has been withheld from public disclosure in the assessment;
- (9) a discussion concerning any conflicting information in regard to identified cultural resources, practices and beliefs;
- (10) an analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place, and;
- (11) the inclusion of bibliography of references, and attached records of interviews, which were allowed to be disclosed.

Based on the inclusion of the above information, assessments of the potential effects on cultural resources in the project area and recommendations for mitigation of these effects can be proposed.

#### **ARCHIVAL RESEARCH**

Archival research focused on a historical documentary study involving both published and unpublished sources. These included legendary accounts of native and early foreign writers; early historical journals and narratives; historic maps and land records such as Land Commission Awards, Royal Patent Grants, and Boundary Commission records; historic accounts, and previous archaeological project reports.

#### **INTERVIEW METHODOLOGY**

Interviews are conducted in accordance with Federal and State laws and guidelines when knowledgeable individuals are able to identify cultural resources in, or in close proximity to the project area. If they have knowledge of traditional stories, practices and beliefs associated with a project area or if they know of historical properties within the project area, they are sought for additional consultation and interviews. Individuals who have particular knowledge of traditions passed down from preceding generations and a personal familiarity with the project area are invited to share their relevant information concerning particular cultural resources. Often people are recommended for their expertise, and indeed, organizations, such as Hawaiian Civic Clubs, the Island Branch of Office of Hawaiian Affairs, historical societies, Island Trail clubs, and

Planning Commissions are depended upon for their recommendations of suitable informants. These groups are invited to contribute their input, and suggest further avenues of inquiry, as well as specific individuals to interview. No interviews were conducted for the present project as a result of no responses received from any of the contacted organizations and individuals.

If knowledgeable individuals are identified, personal interviews are sometimes taped and then transcribed. These draft transcripts are returned to each of the participants for their review and comments. After corrections are made, each individual signs a release form, making the information available for this study. When telephone interviews occur, a summary of the information is often sent for correction and approval, or dictated by the informant and then incorporated into the document. If no cultural resource information is forthcoming and no knowledgeable informants are suggested for further inquiry, interviews are not conducted.

In this case, letters briefly outlining the development plans along with maps of the project area were sent to individuals and organizations whose jurisdiction includes knowledge of the area with an invitation for consultation (Appendix A). Consultation was sought from Kai Markell, the Director of Native Rights, Land and Culture, Office of Hawaiian Affairs on O`ahu; Thelma Shimaoka, Coordinator of the Maui branch of the Office of Hawaiian Affairs; the Central Maui Hawaiian Civic Club; Hinano Rodrigues, Cultural Historian with State Historic Preservation Division; Kīhei Community Association; the Cultural Resources Commission, Kamika Kepa`a with the Native Hawaiian Preservation Council, and Kimokeo Kapahulehua of `Ao`ao O Nā Loko I`a O Maui. If cultural resources are identified based on the information received from these organizations and additional informants, an assessment of the potential effects on the identified cultural resources in the project area and recommendations for mitigation of these effects can be proposed.

#### **PROJECT AREA AND VICINITY**

The project area is located in Kama`ole Ahupua`a but is near the boundary of Kēōkea Ahupua`a. It is bordered on the north by undeveloped land, to the west by private property and Alaloa Road. Kakanui road forms the eastern border and to the south is privately owned land. The coastline is located less than one mile to the west of the project area (see Figure 2).

## CULTURAL HISTORICAL CONTEXT

The island of Maui ranks second in size of the eight main islands in the Hawaiian Archipelago. The Island was formed by two volcanoes, Mount Kukui in the west and Haleakalā in the east. The younger of the two volcanoes, Haleakalā, soars 2,727 m (10,023 feet) above sea level and embodies the largest section of the island. Unlike the amphitheater valleys of West Maui, the flanks of Haleakalā are distinguished by gentle slopes. Although it receives more rain than its counterpart in the east, the permeable lavas of the Honomanū and Kula Volcanic Series prevent the formation of rain-fed perennial streams. The few perennial streams found on the windward side of Haleakalā originate from springs located at low elevations. Valleys and gulches were formed by intermittent water run-off. The environment factors and resource availability heavily influenced pre-Contact settlement patterns. Although an extensive population was found occupying the uplands above the 30-inch rainfall line where crops could easily be grown, coastal settlement was also common (Kolb *et al.* 1997). The existence of three fishponds at Kalepolepo, north of the project area, and at least two *heiau* have been identified near the shore.

The literature confirms the presence of a stable population relying mainly on coastal and marine resources. Agriculture may have been practiced behind the dune berms in low-lying marshland or in the vicinity of Kealia Pond. It is suggested that permanent habitation and their associated activities occurred from A.D. 1200 through the present in both the uplands and coastal region (Ibid.).

### **PAST POLITICAL BOUNDARIES**

Traditionally, the division of Maui's lands into districts (*moku*) and sub-districts was performed by a *kahuna* (priest, expert) named Kalaiha`ōhia, during the time of the *ali`i* Kaka`alaneo (Beckwith 1940:383; Fornander places Kaka`alaneo at the end of the 15<sup>th</sup> century or the beginning of the 16<sup>th</sup> century [Fornander 1919-20, Vol. 6:248]). Land was considered the property of the king or *ali`i`ai moku* (the *ali`i* who eats the island/district), which he held in trust for the gods. The title of *ali`i`ai moku* ensured rights and responsibilities to the land, but did not confer absolute ownership. The king kept the parcels he wanted, his higher chiefs received large parcels from him and, in turn, distributed smaller parcels to lesser chiefs. The *maka`āinana* (commoners) worked the individual plots of land.

In general, several terms, such as *moku*, *ahupua`a*, *ili* or *ili`āina* were used to delineate various land sections. A district (*moku*) contained smaller land divisions (*ahupua`a*), which

customarily continued inland from the ocean and upland into the mountains. Extended household groups living within the *ahupua`a* were therefore, able to harvest from both the land and the sea. Ideally, this situation allowed each *ahupua`a* to be self-sufficient by supplying needed resources from different environmental zones (Lyons 1875:111). The *ili`āina* or *ili* were smaller land divisions next to importance to the *ahupua`a* and were administered by the chief who controlled the *ahupua`a* in which it was located (*ibid*:33; Lucas 1995:40). The *mo`o`āina* were narrow strips of land within an *ili*. The land holding of a tenant or *hoa`āina* residing in an *ahupua`a* was called a *kuleana* (Lucas 1995:61). The project area is located in the *ahupua`a* of Kama`ole, which translated means literally “childless” (Pukui *et al.*:81).

### TRADITIONAL SETTLEMENT PATTERNS

The Hawaiian economy was based on agricultural production and marine exploitation, as well as raising livestock and collecting wild plants and birds. Extended household groups settled in various *ahupua`a*. Within the *ahupua`a*, residents were able to harvest from both the land and the sea. Ideally, this situation allowed each *ahupua`a* to be self-sufficient by supplying needed resources from different environmental zones (Lyons 1875:111).

During pre-Contact times, there were primarily two types of agriculture, wetland and dry land, both of which were dependent upon geography and physiography. River valleys provided ideal conditions for wetland *kalo* (*Colocasia esculenta*) agriculture that incorporated pond fields and irrigation canals. Other cultigens, such as *kō* (sugar cane, *Saccharum officinarum*) and *mai`a* (banana, *Musa* sp.), were also grown and, where appropriate, such crops as *u`ala* (sweet potato, *Ipomoea batatas*) were produced. This was the typical agricultural pattern seen during traditional times on all the Hawaiian Islands (Kirch and Sahlins 1992, Vol. 1:5, 119; Kirch 1985). Agricultural development on the leeward side of Maui was likely to have begun early in what is known as the Expansion Period (AD 1200-1400, Kirch 1985). According to Handy, there was “continuous cultivation on the coastal region along the northwest coast” of Maui. He writes:

On the south side of western Maui the flat coastal plain all the way from Kihei and Ma`alaea to Honokahua, in old Hawaiian times, must have supported many fishing settlements and isolated fishermen’s houses, where sweet potatoes were grown in the sandy soil or red lepo [soil] near the shore. For fishing, this coast is the most favorable on Maui, and, although a considerable amount of taro was grown, I think it is reasonable to suppose that the large fishing population, which presumably inhabited this leeward coast, ate more sweet potatoes than taro with their fish... [1940:159].

There is little specific information pertaining directly to Kīhei, which was originally a small area adjacent to a landing built in the 1890s (Clark 1980). Presently, Kīhei refers a six-mile section along the coast from the town of Kīhei to Keawakapu. Scattered amongst the agricultural and habitation sites were places of cultural significance to the *kama`āina* of the district including at least two *heiau*. In ancient times, there was a small village at Kalepolepo based primarily on marine resources. It was recorded that occasionally the blustery Kaumuku Winds would arrive with amazing intensity along the coast (Wilcox 1921).

There were several fishponds in the vicinity of Kīhei; Waiohuli, Kēōkea-kai, and Kalepolepo Pond (also known by the ancient name of Kō`ie`ie Pond; Kolb *et al.* 1997). Constructed on the boundary between Ka`ono`ulu and Waiohui Ahupua`a, these three ponds were some of the most important royal fishponds on Maui. The builder of Kalepolepo and two other ponds (Waiohuli and Kēōkea-kai) has been lost in antiquity, but they were reportedly rebuilt at least three times through history, beginning during the reign of Pi`ilani (1500s; *Ibid*; Cordy 2000).

Oral tradition recounts the repairing of the fishponds during the reign of Kiha-Pi`ilani, the son of the great chief Pi`ilani, who had bequeathed the ponds to Umi, ruler of Hawai`i Island. Umi's *konohiki* (land manager) ordered all the people from Maui to help repair the walls of Kalepolepo's fishponds. A man named Kikau protested that the repairs couldn't be done without the assistance of the *menehune* who were master builders (Wilcox 1921:66-67). The *konohiki* was furious and Kikau was told he would die once the repairs had been made. Kēōkea-kai was the first to be repaired. When the capstone was carried on a litter to the site, the *konohiki* rode proudly on top of the rock as it was being placed in the northeast corner of the pond. When it was time for repairs on Waiohuli-kai, the *konohiki* did the same. As the last pond, then known as Ka`ono`ulu-kai, was completed, the *konohiki* once again rode the capstone to its resting place. Before it could be put into position, the capstone broke throwing both the rock and *konohiki* into the dirt. The workers reportedly said "*Ua konohiki Kalepolepo, ua eku i ka lepo*" or, "the manager of Kalepolepo, one who roots in the dirt" (*Ibid*:66). That night a tremendous storm threw down the walls of the fishponds. The *konohiki* implored Kikau to help him repair the damage. Kikau called the *menehune* who rebuilt the walls in one night. Umi sent for Kikau who lived in the court of Waipi`o valley from then on. The region o Kēōkea-kai and Ka`ono`ulu-kai fishpond became known as Kalepolepo fishpond (*Ibid*).

The Kalepolepo fishponds were rebuilt by Kekaulike, chief of Maui in the 1700s, at which time it supplied `ama`ama (mullet) to Kahekili II. Again, it was restored by Kamehameha

I when he ruled as governing chief over Maui and for the last time in the 1840s when prisoners from Kaho`olawe penal colony were sent to do repairs (Kamakau 1961; Wilcox 1921). At this time, stones were taken from Waiohuli-kai pond for the reconstruction of Kalepolepo. It was here at Kalepolepo that Kamehameha I reportedly beached his victorious canoes after subduing the Maui chiefs. The stream draining into Kealia pond (north of the project area) became sacred to royalty and *kapu* to commoners (Stoddard 1894).

Trails extended from the coast to the mountains, linking the two for both economic and social reasons. A trail known as the *alanui* or “King’s trail” built by Kihapi`ilani, extended along the coast passing through all the major communities between Lāhainā and Mākena, including Kīhei. Kolb noted that two traditional trails extended through Kēōkea. One trail, named “*Kekuawaha`ula`ula*” or the “red-mouthed god”, went from Kīhei inland to Kēōkea. Another, the Kalepolepo trail, began at the Kalepolepo fishpond and continued to upland Waiohuli. These trails were not only used in the pre-Contact era, but were expanded to accommodate wagons bringing produce to the coast in the 1850s (Kolb *et al.* 1997:61).

#### **WESTERN CONTACT**

Early records, such as journals kept by explorers, travelers and missionaries, Hawaiian traditions that survived long enough to be written down, and archaeological investigations have assisted in the understanding of past cultural activities. Unfortunately, early descriptions of this portion of the Maui coast are brief and infrequent. Captain King, Second Lieutenant on the *Revolution* during Cook’s third voyage briefly described what he saw from a vantage point of “eight or ten leagues” (approximately 24 miles) out to sea as his ship departed the islands in 1779 (Beaglehole 1967). He mentions Pu`u Ōla`i south of Kīhei and enumerates the observed animals, thriving groves of breadfruit, the excellence of the taro, and almost prophetically, says the sugar cane is of an unusual height. Seen from this distance and the mention of breadfruit suggest the uplands of Kīpahulu-Kaupo and `Ulupalakua were his focus.

In the ensuing years, LaPérouse (1786), Nathaniel Portlock and George Dixon, (also in 1786), sailed along the western coast, but added little to our direct knowledge of Kīhei. During the second visit of Vancouver in 1793, his expedition becalmed in the Ma`alaea Bay close to the project area. He reported:

The appearance of this side of Mowee was scarcely less forbidding than that of its southern parts, which we had passed the preceding day. The shores, however, were not so steep and rocky, and were mostly composed of a sandy beach; the land did not rise so very

abruptly from the sea towards the mountains, nor was its surface so much broken with hills and deep chasms; yet the soil had little appearance of fertility, and no cultivation was to be seen. A few habitations were promiscuously scattered near the waterside, and the inhabitants who came off to us, like those seen the day before, had little to dispose of [Vancouver 1984:852].

Archibald Menzies, a naturalist accompanying Vancouver stated, "... we had some canoes off from the latter island [Maui], but they brought no refreshments. Indeed, this part of the island appeared to be very barren and thinly inhabited" (Menzies 1920:102). According to Kahekili, then chief of Maui, the extreme poverty in the area was the result of the continuous wars between Maui and Hawai`i Island causing the land to be neglected and human resources wasted (Vancouver 1984:856).

### **MĀHELE**

In the 1840s a drastic change in traditional land tenure resulted in a division of island lands. This system of private ownership was based on western law. While a complex issue, many scholars believe that in order to protect Hawaiian sovereignty from foreign powers, Kamehameha III (Kamehameha III) was forced to establish laws changing the traditional Hawaiian economy to that of a market economy (Kuykendall Vol. I, 1938:145 footnote 47, 152, 165-6, 170; Daws 1968:111; Kelly 1983:45; Kame`eleihiwa 1992:169-70, 176).

Among other thing, foreigners demanded private ownership of land to insure their investments (Kuykendall Vol. I, 1938:138, 145, 178, 184, 202, 206, 271; Kame`eleihiwa 1992:178; Kelly 1998:4). Once lands were made available and private ownership was instituted the *maka`āinana* (commoners) were able to claim the plots on which they had been cultivating and living, if they had been made aware of the foreign procedures (*kuleana* lands, Land Commission Awards, LCA). These claims could not include any previously cultivated or presently fallow land, *`okipū* (on O`ahu), stream fisheries or many other resources necessary for traditional survival (Kelly 1983; Kame`eleihiwa 1992:295; Kirch and Sahlins 1992). This land division, or Māhele, occurred in 1848. The awarded parcels were called Land Commission Awards. If occupation could be established through the testimony of two witnesses, the petitioners were awarded the claimed LCA, issued a Royal Patent number, and could then take possession of the property (Chinen 1961: 16). Forty-three land claims were made in the *ahupua`a* of Kama`ole. No land claims were in or near the project area.

As western influence grew, Kalepolepo in Kīhei became the important provisioning area. Europeans were now living or frequently visiting the coast and several churches and missionary stations were established. A Mr. Halstead left medical school on the East coast of the continent to become a whaler and after marrying the granddaughter of Issac Davis, settled in Kalepolepo on land given him by Kamehameha III (Kolb et al. 1997). His residence and store situated at Kalepolepo landing was known as the Koa House having been constructed of *koa* logs brought from the uplands of Kula. The store flourished due to the whaling and potato industry and provided an accessible port for exported produce. Several of Hawai`i's ruling monarchs stayed at the Koa House, including Kauikeaouli (Kamehameha III), Kamehameha the IV, Lot Kamehameha (V), and Lunalilo. Wilcox, giving a glimpse of the surroundings before abandonment stated, "...Kalepolepo was not so barren looking a place. Coconut trees grew beside pools of clear warm water along the banks of which grew taro and ape..." (1921:67). However, by 1887 this had changed. Wilcox continues:

...the Kula mountains had become denuded of their forests, torrential winter rains were washing down earth from the uplands, filling with silt the ponds at Kalepolepo...ruins of grass huts [were] partly covered by drifting sand, and a few weather-beaten houses perched on the broad top of the old fish pond wall at the edge of the sea, with the Halstead house looming over them dim and shadowy in the daily swirl of dust and flying sand..." [1921]

As early as 1828, sugar cane was being grown on Maui (Speakman 1981:114). Sugar was established in the Makawao area in the late 1800s and by 1899, the Kihei Plantation Company (KPC) was growing cane in the plains above Kīhei. The Kihei Plantation was absorbed by the Hawaiian Commercial and Sugar Company (HC&SC) in 1908, and they continued cultivating what had been the KPC fields into the 1960s. A 200-foot-long wharf was constructed in Kīhei at the request of Maui plantation owners and farmers and served inter-island boats for landing freight and shipping produce to Honolulu (Clark 1980). In 1927, Alexander and Baldwin became the agents for the plantation (Condé and Best 1973). A landing was built at Kīhei around 1890.

With the introduction of a dependable water supply in 1952, came overseas investment and development, which has continued up to, and including this time.

## SUMMARY

The “level of effort undertaken” to identify potential effect by a project to cultural resources, places or beliefs (OEQC 1997) has not been officially defined and is left up to the investigator. A good faith effort can mean contacting agencies by letter, interviewing people who may be affected by the project or who know its history, research identifying sensitive areas and previous land use, holding meetings in which the public is invited to testify, notifying the community through the media, and other appropriate strategies based on the type of project being proposed and its impact potential. Sending inquiring letters to organizations concerning development of a piece of property that has already been totally impacted by previous activity and is located in an already developed industrial area may be a “good faith effort”. However, when many factors need to be considered, such as in coastal or mountain development, a good faith effort might mean an entirely different level of research activity.

In the case of the present parcel, letters of inquiry were sent to organizations whose expertise would include the project area. Consultation was sought from Kai Markell, the Director of Native Rights, Land and Culture, Office of Hawaiian Affairs on O`ahu; Thelma Shimaoka, Coordinator of the Maui branch of the Office of Hawaiian Affairs; the Central Maui Hawaiian Civic Club; Hinano Rodrigues, Cultural Historian with State Historic Preservation Division; Kihei Community Association; the Cultural Resources Commission, Kamika Kepa`a with the Native Hawaiian Preservation Council, and Kimokeo Kapahulehua of `Ao`ao O Nā Loko I`a O Maui.

Historical and cultural source materials were extensively used and can be found listed in the References Cited portion of the report. Such scholars as I`i, Kamakau, Beckwith, Chinen, Kame`eleihiwa, Fornander, Kuykendall, Kelly, Handy and Handy, Puku`i and Elbert, Thrum, Sterling, and Cordy have contributed, and continue to contribute to our knowledge and understanding of Hawai`i, past and present. The works of these and other authors were consulted and incorporated in the report where appropriate. Land use document research was supplied by the Waihona `Aina 2005 Data base.

## CIA INQUIRY RESPONSE

As suggested in the “Guidelines for Accessing Cultural Impacts” (OEQC 1997), CIAs may incorporate personal interviews, as well as organizational information of cultural practices and features associated with a project area.

As stated above, consultation was sought from Kai Markell, the Director of Native Rights, Land and Culture, Office of Hawaiian Affairs on O`ahu; Thelma Shimaoka, Coordinator of the Maui branch of the Office of Hawaiian Affairs; the Central Maui Hawaiian Civic Club; Hinano Rodrigues, Cultural Historian with State Historic Preservation Division; Kīhei Community Association; the Cultural Resources Commission, Kamika Kepa`a with the Native Hawaiian Preservation Council, and Kimokeo Kapahulehua of `Ao`ao O Nā Loko I`a O Maui. A telephone call was received from Kimokeo Kapahulehua on May 20, 2008, who stated that as far as he knew, there were no cultural activities within or near the project area and that the lot had been graded. None of the other organizations responded to our inquiry.

Analysis of the potential effect of the project on cultural resources, practices or beliefs, its potential to isolate cultural resources, practices or beliefs from their setting, and the potential of the project to introduce elements which may alter the setting in which cultural practices take place is a requirement of the OEQC (No. 10, 1997). To our knowledge, the project area has not been used for traditional cultural purposes within recent times. The visual impact of the project from surrounding vantage points, e.g. the highway, mountains, and coast is minimal.

#### **CULTURAL ASSESSMEMNT**

Based on information received from Kimokeo Kapahulehua, asserting no knowledge of on going cultural activities in the project area, no additional suggestions or information from the contacted organizations, and negative results of the archival research, it is reasonable to conclude that, pursuant to Act 50, the exercise of native Hawaiian rights, or any ethnic group, related to gathering, access or other customary activities will not be affected by development activities on a portion of lot 70. Because there were no cultural activities identified within the project area, there are no adverse effects.

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**APPENDIX A: LETTERS OF INQUIRY REQUESTING INFORMATION**

SCIENTIFIC CONSULTANT SERVICES, Inc.



711 Kapiolani Blvd., Suite 975 Honolulu, Hawaii 96813

Hawaiian Civic Club  
Central Maui  
310 Ka'ahumanu Ave.  
Kahului, Maui 96732

May 15, 2008

Dear Members:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo and Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of approximately 10 acres of land located in Kihei, Maui [TMK:2-2-02: 70 por]. Exhibits provided by Munekiyo and Hiraga, Inc., proposes the construction of the Kihei Police Station.

Development involves assessing the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs... The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural which support such cultural beliefs...

We are asking you for any information that might contribute to the knowledge of traditional activities, or traditional rights that might be impacted by development of the property. The assessment results are dependent on the response and contributions made by individuals and organizations such as yours.

Enclosed are maps showing the proposed project area. Please contact me at our SCS Honolulu office at (808) 597-1182; my cell phone, 225-2355; or home, (808) 637-9539, with any information or recommendations concerning this Cultural Impact Assessment.

Sincerely yours,

Leann McGerty, Senior Archaeologist  
Enclosures: 2

Ph: 808-597-1182 / SCS... SERVING ALL YOUR ARCHAEOLOGICAL NEEDS / Fax: 808-597-1193

Neighbor Island Offices • Hawaii Island • Maui • Kauai



Kimokeo Kapahulehua  
c/o 'Ao'ao O Nā Loko I'a O Maui  
P.O. Box 1574  
Kihei, HI 96731

May 15, 2008

Dear Mr. Kapahulehua:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo and Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of approximately 10 acres of land located in Kihei, Maui [TMK:2-2-02: 70 por]. Exhibits provided by Munekiyo and Hiraga, Inc., proposes the construction of the Kihei Police Station.

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The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs... The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural which support such cultural beliefs...

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Sincerely yours,

Leann McGerty, Senior Archaeologist  
Enclosures: 2

SCIENTIFIC CONSULTANT SERVICES, Inc.

711 Kapiolani Blvd., Suite 975 Honolulu, Hawaii 96813

Kamika Kepa'a  
Native Hawaiian Preservation Council  
606 Kalo Place  
Lahaina, HI 96761

May 15, 2008

Dear Mr. Kepa'a:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo and Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of approximately 10 acres of land located in Kihei, Maui [TMK:2-2-02: 70 por]. Exhibits provided by Munekiyo and Hiraga, Inc., proposes the construction of the Kihei Police Station.

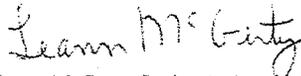
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Sincerely yours,



Leann McGerty, Senior Archaeologist  
Enclosures: 2

SCIENTIFIC CONSULTANT SERVICES, Inc.



711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

Hinano Rodrigues, Cultural Historian  
DLNR Maui Office  
130 Mahalani Street  
Wailuku, HI 96791

May 15, 2008

Dear Hinano:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo and Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of approximately 10 acres of land located in Kīhei, Maui [TMK:2-2-02: 70 por]. Exhibits provided by Munekiyo and Hiraga, Inc., proposes the construction of the Kīhei Police Station.

Development involves assessing the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs... The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural which support such cultural beliefs...

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Sincerely yours,

Leann McGerty, Senior Archaeologist  
Enclosures: 2

Ph: 808-597-1182 / SCS... SERVING ALL YOUR ARCHAEOLOGICAL NEEDS / Fax: 808-597-1193

Neighbor Island Offices • Hawai'i Island • Maui • Kaua'i

SCIENTIFIC CONSULTANT SERVICES, Inc.



711 Kapiolani Blvd., Suite 975 Honolulu, Hawai'i 96813

Kai Markell  
Director of Native Rights  
C/o Office of Hawaiian Affairs  
711 Kapiolani Blvd., Suite 500  
Honolulu, HI 96813

May 15, 2008

Dear Mr. Markell:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo and Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of approximately 10 acres of land located in Kihei, Maui [TMK:2-2-02: 70 por]. Exhibits provided by Munekiyo and Hiraga, Inc., proposes the construction of the Kihei Police Station.

Development involves assessing the probability of impacting cultural values and rights within the project area and its vicinity. According to the *Guidelines for Assessing Cultural Impacts* (Office of Environmental Quality Control, Nov. 1997):

The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs... The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural which support such cultural beliefs...

We are asking you for any information that might contribute to the knowledge of traditional activities, or traditional rights that might be impacted by development of the property. The assessment results are dependent on the response and contributions made by individuals and organizations such as yours. Enclosed are maps showing the proposed project area. Please contact me at our SCS Honolulu office at (808) 597-1182; my cell phone, 225-2355; or home, (808) 637-9539, with any information or recommendations concerning this Cultural Impact Assessment.

Sincerely yours,

Leann McGerty, Senior Archaeologist  
Enclosures: 2

SCIENTIFIC CONSULTANT SERVICES, Inc



711 Kapiolani Blvd., Suite 975 Honolulu, Hawaii 96813

Thelma Shimaoka  
c/o Office of Hawaiian Affairs  
140 Hooehana St.  
Suite 206  
Kahului, HI 96732

May 15, 2008

Dear Ms. Shimaoka:

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SCIENTIFIC CONSULTANT SERVICES, Inc.

711 Kapiolani Blvd., Suite 975 Honolulu, Hawaii 96813

County of Maui  
Department of Planning  
Cultural Resources Commission  
250 S. High Street  
Wailuku, HI 96793

May 15, 2008

Dear Sir or Madam:

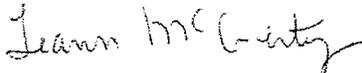
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Sincerely yours,



Leann McGerty, Senior Archaeologist  
Enclosures: 2



Kihei Community Association  
Kihei, Maui  
FAX: 808-879-5390

May 15, 2008

Dear Sirs:

Scientific Consultant Services, Inc. (SCS) has been contracted by Munekiyo and Hiraga, Inc., to conduct a Cultural Impact Assessment (CIA) of approximately 10 acres of land located in Kihei, Maui [TMK:2-2-02: 70 por]. Exhibits provided by Munekiyo and Hiraga, Inc., proposes the construction of the Kihei Police Station.

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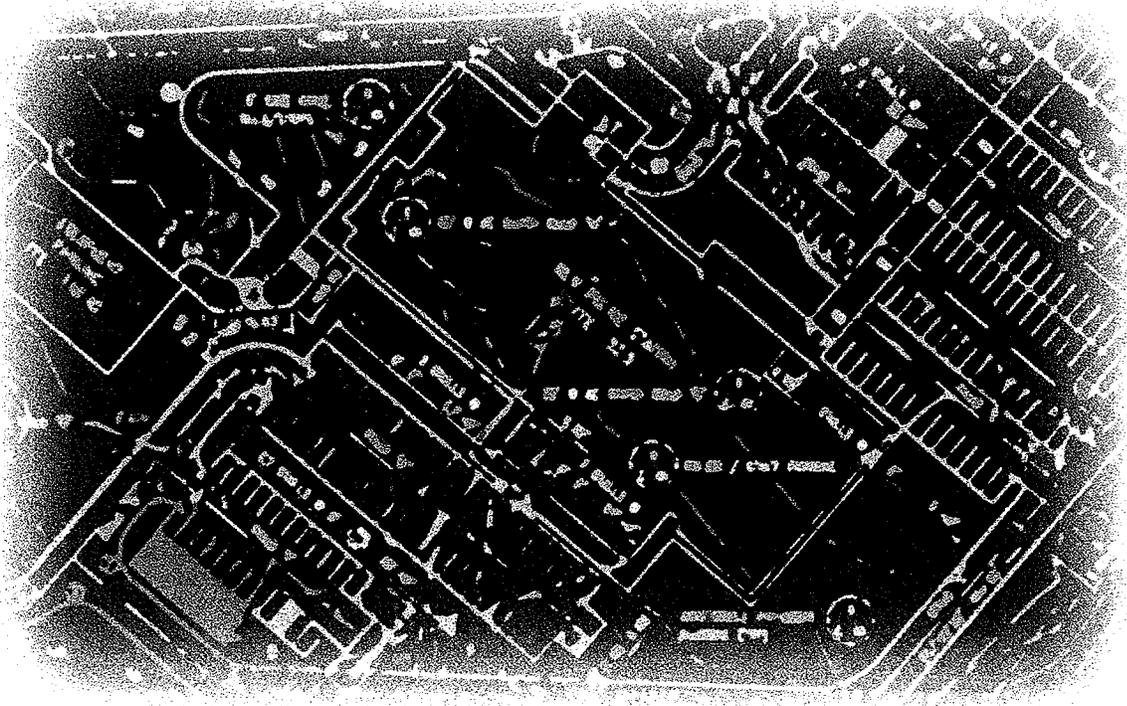
**APPENDIX F.**

**Traffic Impact Report**

## Traffic Impact Report

---

### *Kihei Police Station*



Prepared for:  
Munekiyo & Hiraga, Inc.

Prepared by:  
Wilson Okamoto Corporation

March 2009

***TRAFFIC IMPACT REPORT***

***FOR THE PROPOSED***

***KIHEI POLICE STATION***

*Prepared for:*

Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

*Prepared by:*

Wilson Okamoto Corporation  
1907 S. Beretania Street, Suite 400  
Honolulu, Hawaii 96826  
WOC Ref #7788-01

March 2009

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## **I. INTRODUCTION**

### **A. Purpose of Study**

The purpose of this study is to identify and assess the traffic impacts resulting from the Kihei Police Station on the island of Maui. The proposed project entails the relocation of the existing police station to a new two-story building adjacent to Piilani Highway.

### **B. Scope of Study**

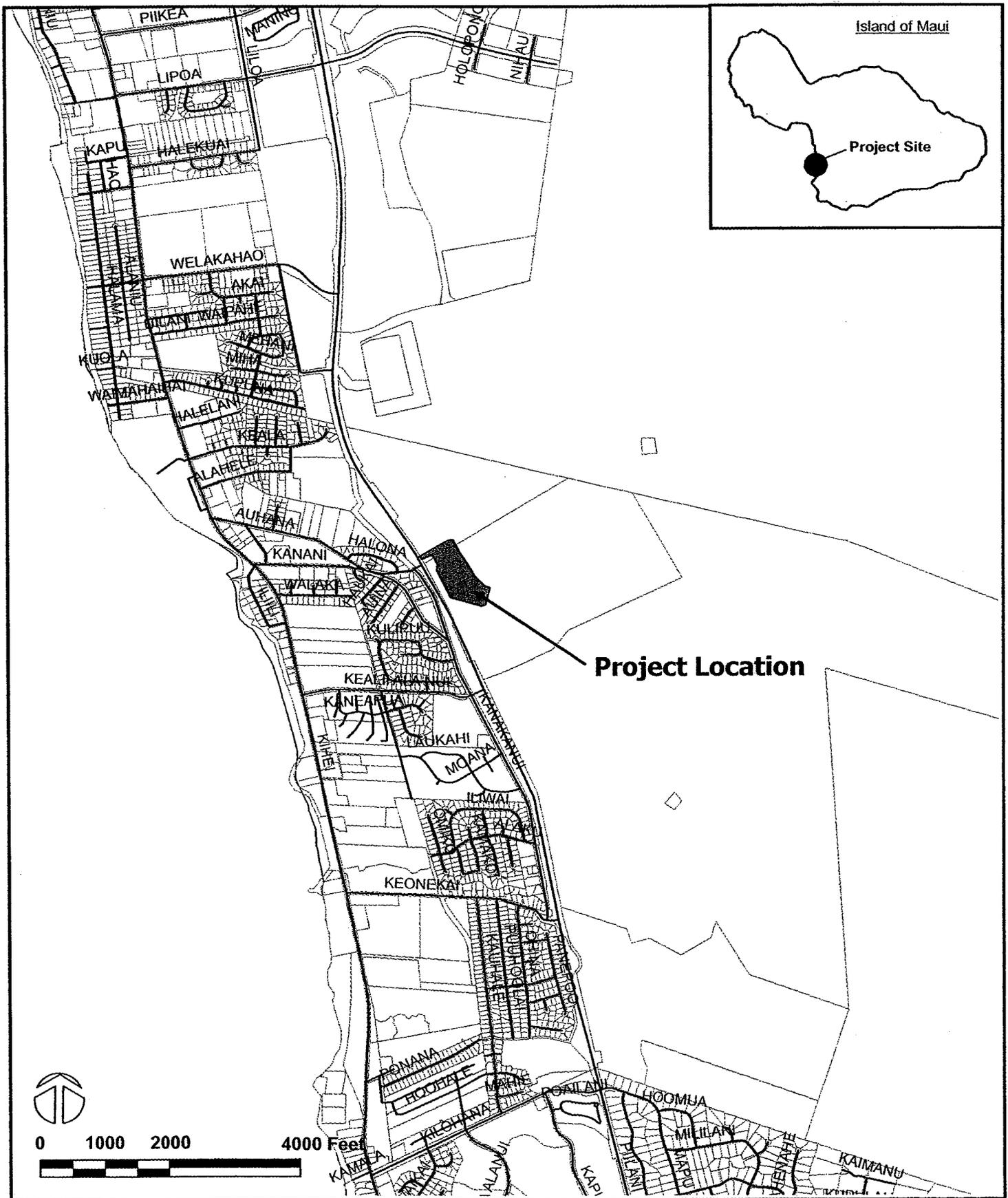
This report presents the findings and conclusions of the traffic study, the scope of which includes:

1. Description of the proposed project.
2. Evaluation of existing roadway and traffic operations in the vicinity.
3. Analysis of future roadway and traffic conditions without the proposed project.
4. Analysis and development of trip generation characteristics for the proposed project.
5. Superimposing site-generated traffic over future traffic conditions.
6. The identification and analysis of traffic impacts resulting from the proposed project.
7. Recommendations of improvements, if appropriate, that would mitigate the traffic impacts resulting from the proposed project.

## **II. PROJECT DESCRIPTION**

### **A. Location**

The project site for the new Kihei Police Station is located adjacent to Piilani Highway near Kanani Road in Kihei on the island of Maui (see Figure 1). The proposed site is part of a larger County park parcel and is further identified as Tax Map Key: 2-2-002: 070 (por.). Access to the new police station would be provided via a new access road off Piilani Highway.



**Project Location**

Island of Maui

Project Site



0 1000 2000 4000 Feet



**KIHEI POLICE STATION**

**LOCATION MAP AND VICINITY MAP**

**FIGURE**

**1**

  
**WILSON OKAMOTO CORPORATION**  
 ENGINEERS - PLANNERS

**B. Project Characteristics**

The existing police station currently housed in a 2,400 square foot space at the Kihei Town Center adjacent to South Kihei Road. The existing station does not have adequate space to accommodate the staff and functional requirements of the Kihei Police Station, and much of their operations are incompatible with the surrounding commercial shopping center usage. The proposed project entails the relocation of this station to a new two-story building adjacent to Piilani Highway. The new 46,934 square foot police station will house office, meeting, and training areas, as well as, holding cells and record storage. The new station is expected to be completed by the Year 2010 with access provided via a new access road off Piilani Highway at Kanani Road. Figure 2 shows the proposed project site plan.

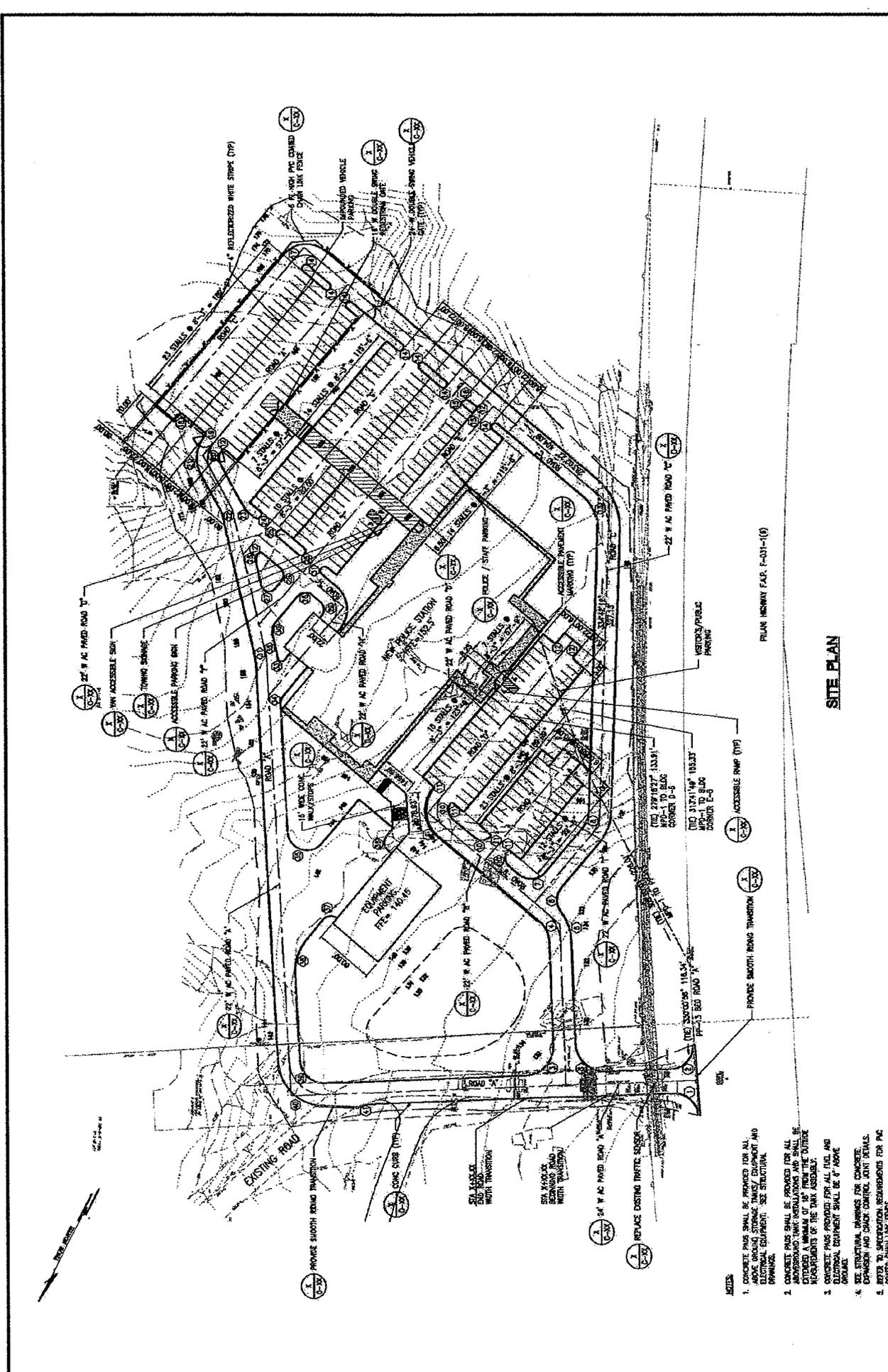
**III. EXISTING TRAFFIC CONDITIONS**

**A. General**

The project site is located adjacent to Piilani Highway, a State of Hawaii roadway generally oriented in the north-south direction that, with South Kihei Road, serves as the main arterials along the southwest coast of Maui. In recent years, traffic volumes along these roadways have steadily increased due to on-going development in Kihei and Wailea.

**B. Area Roadway System**

Adjacent to the project site, Piilani Highway intersects Kanani Road. At this signalized intersection, the northbound approach of the highway has an exclusive left-turn lane, one through lane, and a shared through and right-turn lane while the southbound approach has exclusive turning lanes and two through lanes. Kanani Road is a County of Maui roadway generally oriented in the east-west direction that serves as a connector roadway between South Kihei Road and Piilani Highway. At the intersection with Piilani Highway, the Kanani Road approach has one eastbound lane that serves all traffic movements. The westbound approach of the intersection is comprised of an access road for an adjacent parcel.



**SITE PLAN**

- NOTES**
1. CONCRETE PADS SHALL BE PROVIDED FOR ALL LARGE DRIVING STORAGE TANKS, EQUIPMENT AND ELECTRICAL EQUIPMENT. SEE STRUCTURAL DRAWINGS.
  2. CONCRETE PADS SHALL BE PROVIDED FOR ALL APPROPRIATE TRUCK INSTALLATIONS AND SHALL BE DETACHED A MINIMUM OF 10' FROM THE OUTSIDE PERIMETERS OF THE TANK ASSEMBLY.
  3. CONCRETE PADS PROVIDED FOR ALL TANK AND EQUIPMENT SHALL BE 4' ABOVE GRADE.
  4. SEE STRUCTURAL DRAWINGS FOR CONCRETE EXPANSION AND JOINT CONTROL JOINT DETAILS.
  5. REFER TO SPECIFICATION REQUIREMENTS FOR PAVED CHAIN LINK FENCE.

**KIHEI POLICE STATION**

**Project Site Plan**



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ENGINEERS - PLANNERS

South of the intersection with Kanani Road, Piilani Highway intersects Alanui Ke Alii Drive. At this signalized T-intersection, the northbound approach of Piilani Highway has an exclusive left-turn lane and two through lanes while the southbound approach has two through lanes and an exclusive right-turn lane. Alanui Ke Alii Drive is a County of Maui roadway generally oriented in the east-west direction that serves as a connector roadway between South Kihei Road and Piilani Highway. At the intersection with Piilani Highway, the Alanui Ke Alii Drive approach of the intersection has two left-turn lanes and one right-turn lane.

North of the intersection with Kanani Road, Piilani Highway intersects Welakahao Road. At this unsignalized T-intersection, the northbound approach of Piilani Highway has an exclusive left-turn lane and two through lane while the southbound approach has two through lanes and a right-turn lane. Welakahao Road is a County of Maui roadway generally oriented in the east-west direction that serves as a connector roadway between South Kihei Road and Piilani Highway. At the intersection with Piilani Highway, Welakahao Road approach has exclusive left-turn and right-turn lanes. In addition, a median storage lane has been provided along Piilani Highway for vehicles turning left from Welakahao Road.

**C. Traffic Volumes and Conditions**

**1. General**

**a. Field Investigation**

Field investigations were conducted on April 1-2, October 8-9, and October 21, 2008, and consisted of manual turning movement count surveys along Piilani Highway in the project vicinity. The manual turning movement count surveys were conducted between the morning peak hours of 6:30 AM and 8:30 AM, and the afternoon peak hours of 3:30 PM and 5:30 PM at the intersections of Piilani Highway with Kanani Road and Alanui Ke Alii Drive. At the intersection of Piilani Highway with Welakahao Road, the surveys were conducted between the morning peak hours of 6:00 AM and 9:00 AM, and the

afternoon peak hours of 3:00 PM and 6:00 PM. Appendix A includes the existing traffic count data.

**b. Capacity Analysis Methodology**

The highway capacity analysis performed in this study is based upon procedures presented in the “Highway Capacity Manual”, Transportation Research Board, 2000, and the “Highway Capacity Software”, developed by the Federal Highway Administration. The analysis is based on the concept of Level of Service (LOS).

LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS “A” through “F”; LOS “A” representing ideal or free-flow traffic operating conditions and LOS “F” unacceptable or potentially congested traffic operating conditions.

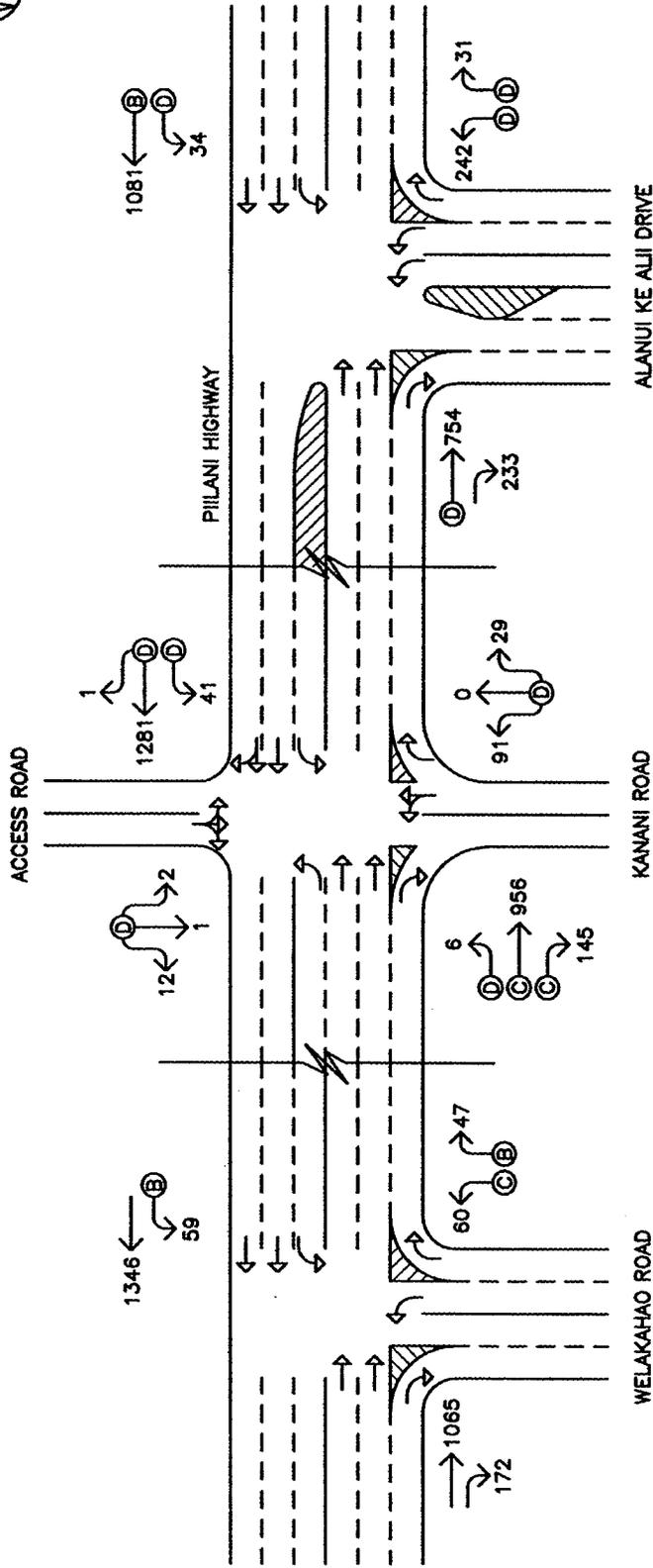
“Volume-to-Capacity” (v/c) ratio is another measure indicating the relative traffic demand to the road carrying capacity. A v/c ratio of one (1.00) indicates that the roadway is operating at or near capacity. A v/c ratio of greater than 1.00 indicates that the traffic demand exceeds the road’s carrying capacity. The LOS definitions are included in Appendix B.

**2. Existing Peak Hour Traffic**

**a. General**

Figures 3 and 4 show the existing AM and PM peak hour traffic volumes and operating traffic conditions. The AM peak hour of traffic occurs between 7:30 AM and 8:30 AM in the vicinity of the proposed project. In the afternoon, the PM peak hour of traffic generally between the hours of 4:00 PM and 5:00 PM. The analysis is based on these peak hour time periods to identify the traffic impacts resulting from the proposed project. LOS calculations are included in Appendix C.



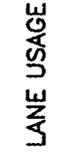


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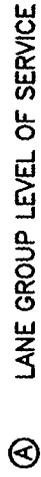
90



TRAFFIC MOVEMENT VOLUME (VPH)



LANE USAGE



LANE GROUP LEVEL OF SERVICE

Date of Count: October 8 & 9, 2008

KIHEI POLICE STATION

EXISTING PM PEAK HOUR OF TRAFFIC

FIGURE

4



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**b. Piilani Highway and Kanani Road**

At the intersection with Kanani Road, Piilani Highway carries 913 vehicles northbound and 1,268 vehicles southbound during the AM peak hour of traffic. During the PM peak hour, the overall traffic volume is higher with 1,323 vehicles traveling northbound and 1,107 vehicles traveling southbound. The critical movements on the highway approaches of the intersection are the northbound through and right-turn traffic movement which operates at LOS "C" and LOS "D" during the AM and PM peak periods, respectively, and the southbound through traffic movement which operates at LOS "D" and LOS "C" during the AM and PM peak period, respectively. Vehicular queues periodically formed on both approaches of the highway with average queue lengths of 5-7 vehicles observed during both peak periods. Most of these queues cleared the intersection after each traffic signal cycle change.

The Kanani Road approach of the intersection carries 131 vehicles and 120 vehicles eastbound during the AM and PM peak hours of traffic, respectively, and operates at LOS "D" during both peak periods. Traffic queues periodically formed on the Kanani Road approach with average queue lengths of 2-3 vehicles observed during both peak periods. These queues cleared the intersection after each traffic cycle change.

The westbound approach of the intersection is comprised of an access road for an adjacent parcel. This approach carried a low volume of traffic during both peak periods with 16 vehicles and 15 vehicles observed on the approach during the AM and PM peak periods, respectively. This approach operates at LOS "D" during both peak periods.

**c. Piilani Highway and Alanui Ke Alii Drive**

At the intersection with Alanui Ke Alii Drive, Piilani Highway carries 652 vehicles northbound and 1,221 vehicles southbound during the AM peak hour of traffic. During the PM peak hour, the overall traffic volume is higher with 1,115 vehicles traveling northbound and 987 vehicles traveling southbound. The northbound left-turn and southbound through traffic movements operate at LOS "D" during both peak periods while the northbound through traffic movement operates at LOS "B" during both peak periods. Traffic queues formed periodically on the highway approaches of the intersection average queue lengths of 6-8 vehicles observed during both peak periods. Most of these queues cleared the intersection after each traffic signal cycle change.

The Alanui Ke Alii Drive approach of the intersection carries 336 vehicles and 273 vehicles eastbound during the AM and PM peak hours of traffic, respectively. The left-turn and right-turn traffic movements on this approach operate at LOS "D" during both peak periods. Traffic queues formed periodically on the Alanui Ke Alii Drive approach of the intersection with the most significant queuing occurring during the AM peak period due to the close proximity of Kananui Road which serves as the access road for the adjacent Kamalii Elementary School. Average queue lengths of 6-8 vehicles were observed on this approach during this time period with queues occasionally extending through the upstream intersection with Kananui Road.

**d. Piilani Highway and Welakahao Road**

At the intersection with Welakahao Road, Piilani Highway carries 1,017 vehicles northbound and 1,323 vehicles southbound during the AM peak hour of traffic. During the PM peak hour, the overall traffic volume is higher with 1,405 vehicles traveling

northbound and 1,237 vehicles traveling southbound. The critical traffic movement on the Piilani Highway approaches of the intersection is the northbound left-turn traffic movement which operates at LOS "B" during both peak periods.

The Welakahao Road approach of the intersection carries 127 vehicles and 107 vehicles eastbound during the AM and PM peak hours of traffic, respectively. The eastbound left-turn and right-turn traffic movements operate at LOS "C" and LOS "B," respectively, during both peak periods.

#### **IV. PROJECTED TRAFFIC CONDITIONS**

##### **A. Site-Generated Traffic**

##### **1. Trip Generation Methodology**

The trip generation methodology used in this study is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in "Trip Generation, 8<sup>th</sup> Edition," 2008. The ITE trip generation rates are developed empirically by correlating the vehicle trip generation data with various land use characteristics such as the number of vehicle trips generated per employee. Currently, there are approximately 33 police personnel (including officers and administrative personnel) assigned to the Kihei District. The police station is operational 24 hours a day, seven days a week with the assigned personnel working in two twelve-hour shifts. Although a portion of the assigned personnel work during the night shift, for the purpose of this report, the total number of site-generated trips was conservatively based upon the total number of assigned personnel in the district. In addition, since the primary function of the Kihei District is patrol rather than public services, the station is expected to operate like a general office building. In addition, although the proposed project involves the relocation of an existing facility rather than a new development, all trips generated by the new police station were conservatively assumed to be new trips along the adjacent roadways. Table 1 summarizes the project site trip

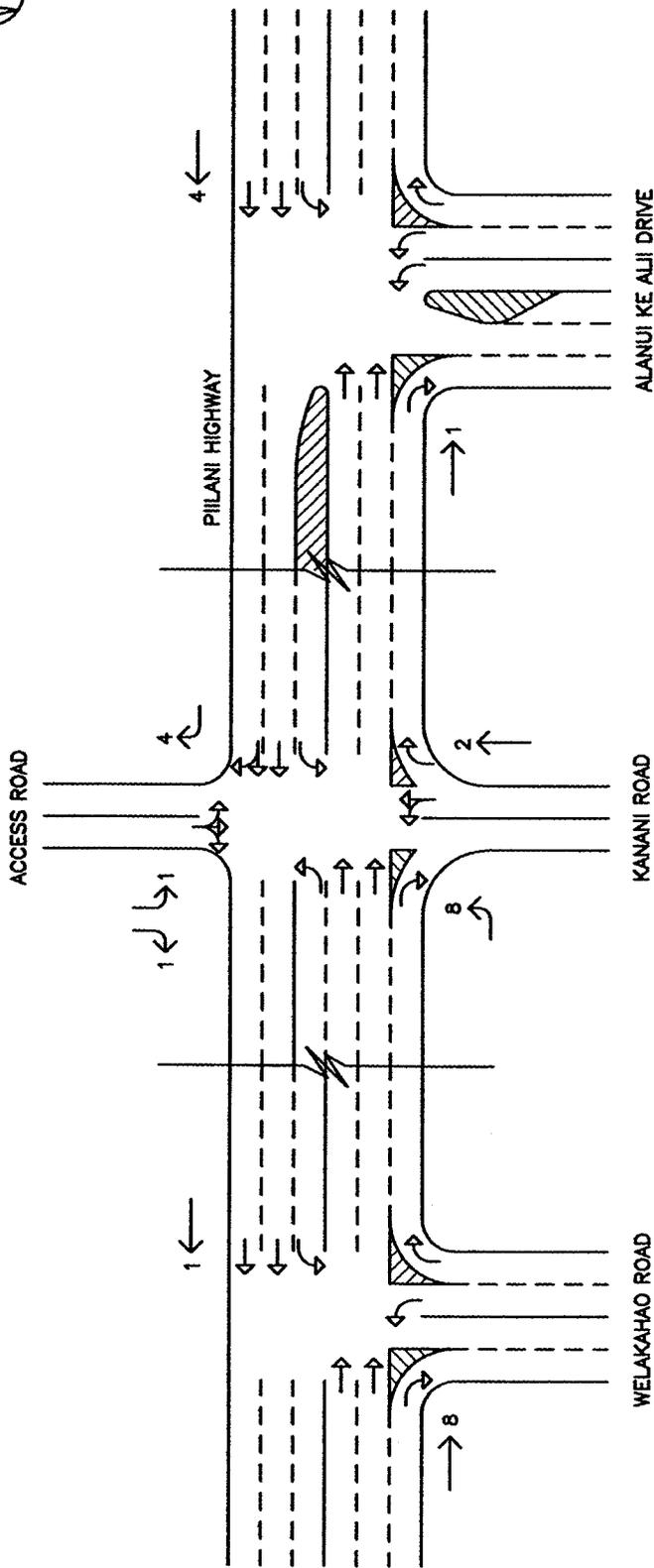
generation characteristics applied to the AM and PM peak hours of traffic to measure the impact resulting from the proposed Kihei Police Station.

**Table 1: Peak Hour Trip Generation**

<b>GENERAL OFFICE BUILDING</b>		
<b>INDEPENDENT VARIABLE:</b>		<b># of Employees = 33</b>
		<b>PROJECTED TRIP ENDS</b>
<b>AM PEAK</b>	<b>ENTER</b>	14
	<b>EXIT</b>	2
	<b>TOTAL</b>	16
<b>PM PEAK</b>	<b>ENTER</b>	3
	<b>EXIT</b>	12
	<b>TOTAL</b>	15

**2. Trip Distribution**

Figures 5 and 6 show the distribution of site-generated vehicular trips at the study intersections during the AM and PM peak hours. Access to the proposed project will be provided via a new access road off Piilani Highway at Kanani Road. The directional distribution of site-generated vehicles was based upon the prevailing directional distribution of traffic along Piilani Highway. As such, 44.1% of the vehicles were assumed to be traveling northbound during the AM peak period while 55.9% were assumed to be traveling southbound. During the PM peak period, 55.6% were assumed to be traveling northbound while 44.4% were assumed to be traveling southbound. At the other two study intersection, the directional distribution of traffic was assumed to remain similar to existing conditions with the exception of turning vehicles at Alanui Ke Alii Drive. All entering vehicles turning left from Alanui Ke Alii Drive were assumed to utilize Kanani Road instead and cross Piilani Highway directly to access the project site. Similarly, all exiting vehicles turning right onto Alanui Ke Alii Drive were assumed to cross Piilani Highway directly from the project site and utilize Kanani Road instead.

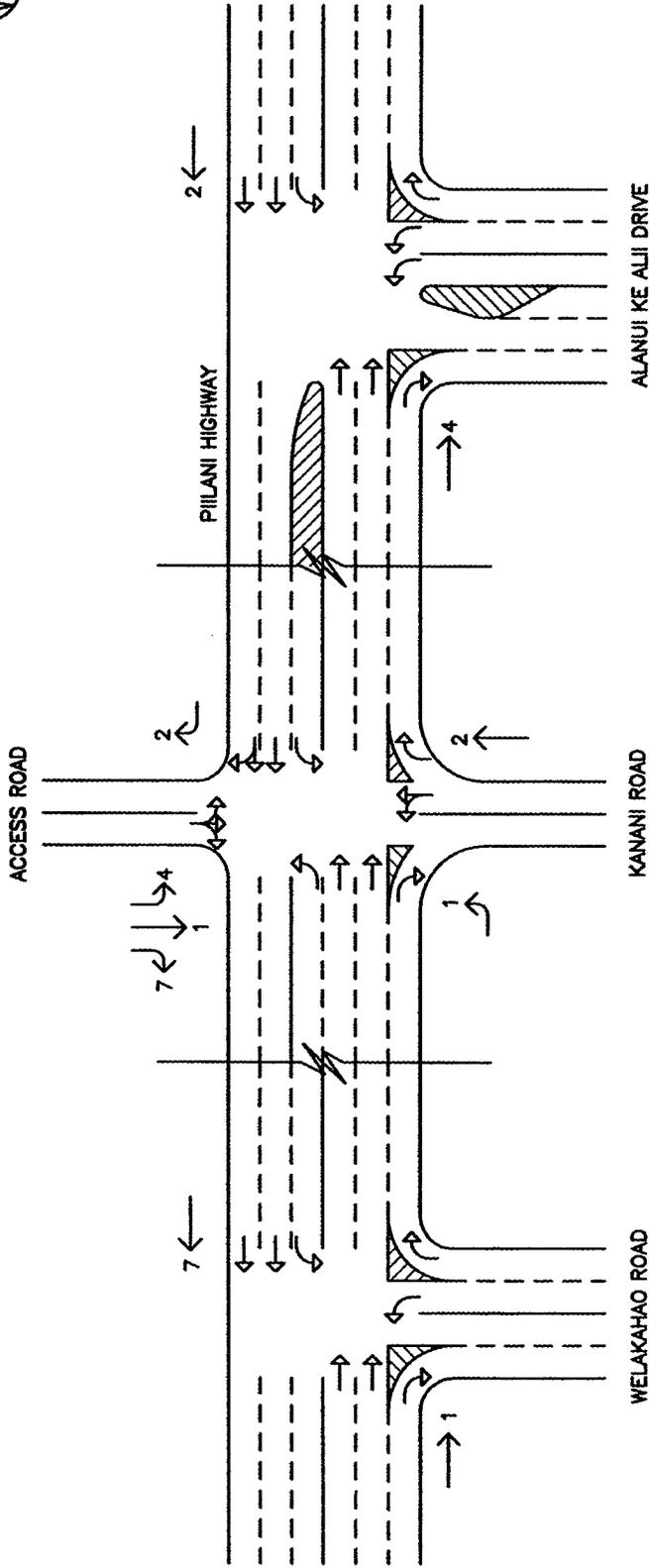


KIHEI POLICE STATION

FIGURE  
5

YEAR 2010 DISTRIBUTION OF SITE-GENERATED VEHICLES  
AM PEAK HOUR OF TRAFFIC

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KIHEI POLICE STATION

FIGURE  
6

YEAR 2010 DISTRIBUTION OF SITE-GENERATED VEHICLES  
PM PEAK HOUR OF TRAFFIC



WILSON OKAMOTO  
CORPORATION  
ENGINEERS • PLANNERS

**B. Through Traffic Forecasting Methodology**

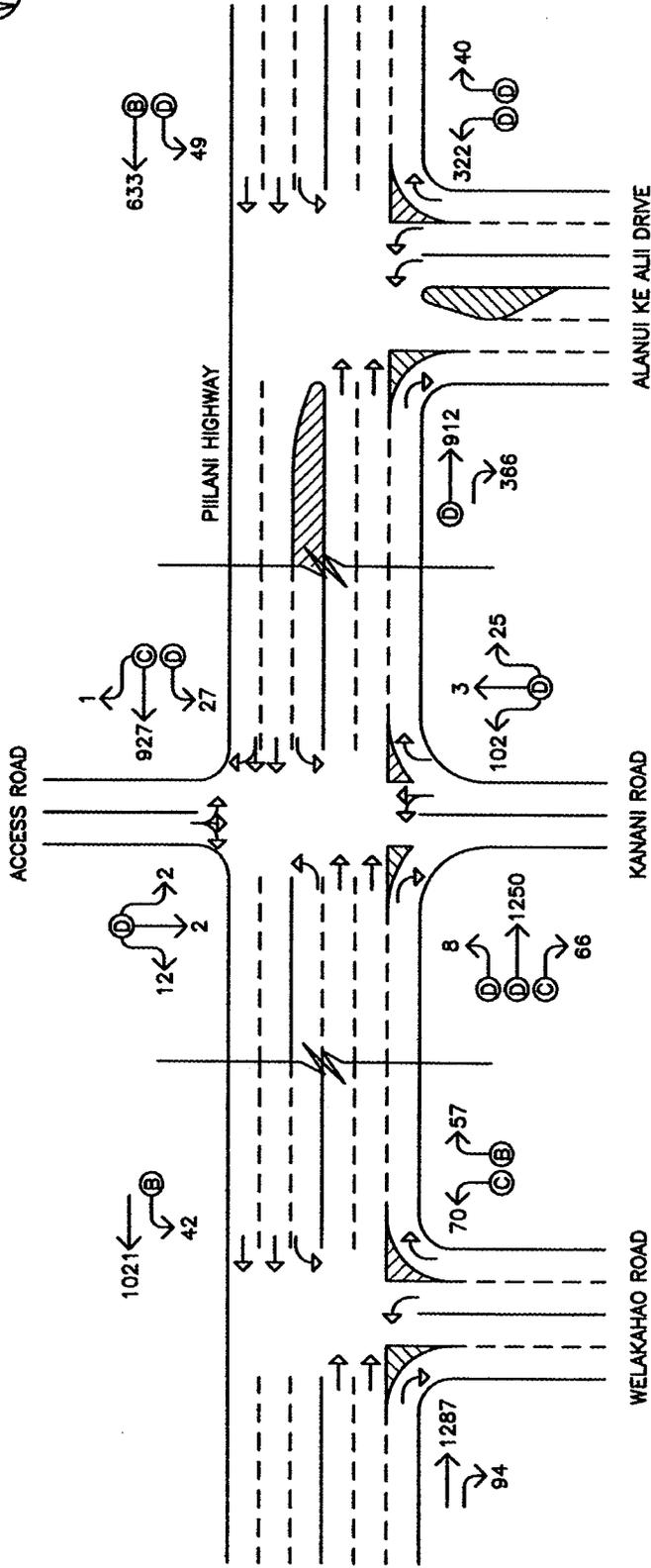
The travel forecast is based upon historical traffic count data obtained from the State DOT, Highways Division at survey stations located in the vicinity of the project site. The historical data were analyzed by linear regression techniques to obtain an annual traffic growth rate of approximately 2.3% in the project vicinity. As such, using 2008 as the Base Year a growth rate factor of 1.047 was applied to the existing traffic demands along Piilani Highway and Alanui Ke Alii Drive to achieve the projected Year 2010 traffic demands.

**C. Total Traffic Volumes Without Project**

The projected Year 2010 AM and PM peak hour traffic volumes and operating conditions in the project vicinity without the new Kihei Police Station are shown on Figures 7 and 8, and summarized in Table 2. The existing levels of service are provided for comparison purposes. LOS calculations are included in Appendix D.

**Table 2: Existing and Projected (Without Project) LOS Traffic Operating Conditions**

Intersection	Critical Traffic Movement		AM		PM	
			Exist	Year 2010 w/out Proj	Exist	Year 2010 w/out Proj
Piilani Hwy/ Kanani Rd	Eastbound	LT-TH-RT	D	D	D	D
	Westbound	LT-TH-RT	D	D	D	D
	Northbound	LT	D	D	D	D
		TH-RT	C	C	D	D
	Southbound	LT	D	D	D	D
		TH	D	D	C	C
RT		C	C	C	C	
Piilani Hwy/ Alanui Ke Alii Dr	Eastbound	LT	D	D	D	D
		RT	D	D	D	D
	Northbound	LT	D	D	D	D
		TH	B	B	B	B
	Southbound	TH	D	D	D	D



LEGEND

- 90 TRAFFIC MOVEMENT VOLUME (VPH)
- LANE USAGE
- ① LANE GROUP LEVEL OF SERVICE

KIHEI POLICE STATION

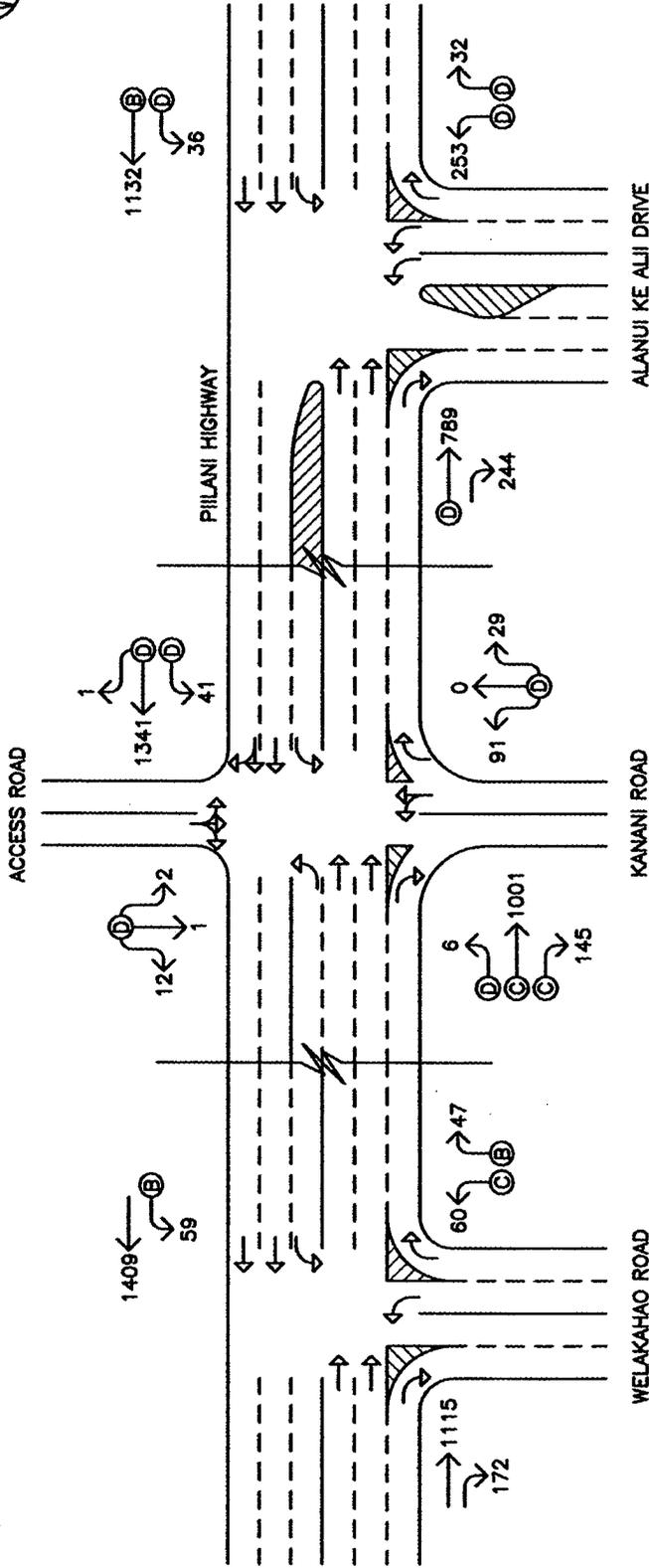
YEAR 2010 AM PEAK HOUR OF TRAFFIC WITHOUT PROJECT

FIGURE

7



WILSON OKAMOTO CORPORATION  
ENGINEERS & PLANNERS



LEGEND

- 90 TRAFFIC MOVEMENT VOLUME (VPH)
- LANE USAGE
- LANE GROUP LEVEL OF SERVICE

KIHEI POLICE STATION

FIGURE

YEAR 2010 PM PEAK HOUR OF TRAFFIC WITHOUT PROJECT

8



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**Table 2: Existing and Projected (Without Project) LOS Traffic Operating Conditions (Cont'd)**

Intersection	Critical Traffic Movement		AM		PM	
			Exist	Year 2010 w/out Proj	Exist	Year 2010 w/out Proj
Piilani Hwy/ Welakahao Rd	Eastbound	LT	C	C	C	C
		RT	B	B	B	B
	Northbound	LT	B	B	B	B

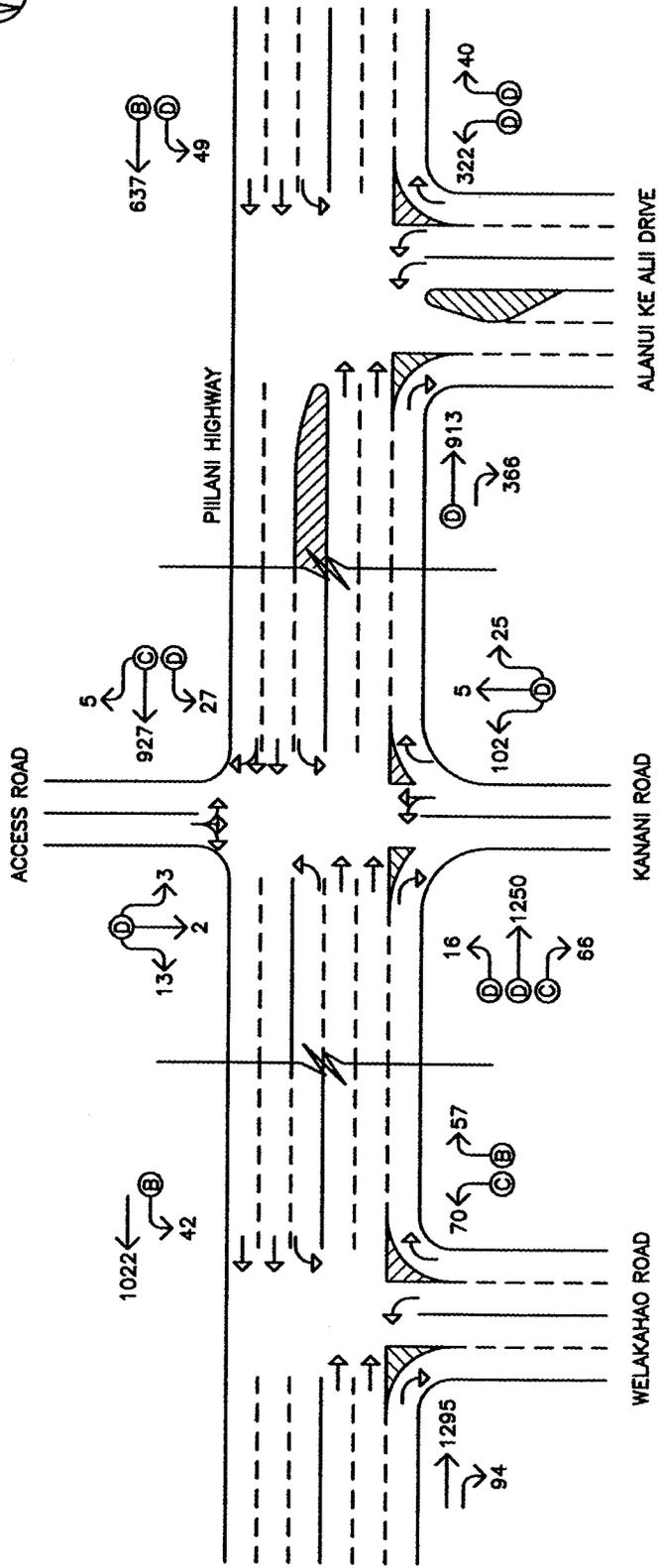
Traffic operations under Year 2010 without project conditions are expected to remain similar to existing conditions during both peak hours of traffic. The critical movements at the intersections of Piilani Highway with Kanani Road and Alanui Ke Alii Drive are expected to continue operating at LOS “D” or better during both peak periods despite the anticipated increases in traffic in the project vicinity due to the ambient growth in traffic. Similarly, the critical movements at the intersection of Piilani Highway with Welakahao Road are expected to continue operating at LOS “C” or better during both peak periods.

**D. Total Traffic Volumes With Project**

Figures 9 and 10 show the Year 2010 cumulative AM and PM peak hour traffic conditions resulting from the projected external traffic and the proposed Kihei Police Station. The cumulative volumes consist of site-generated traffic superimposed over Year 2010 projected traffic demands. The traffic impacts resulting from the proposed project are addressed in the following section.

**V. TRAFFIC IMPACT ANALYSIS**

The Year 2010 cumulative AM and PM peak hour traffic conditions with the new Kihei Police Station are summarized in Table 3. The existing and projected Year 2010 (Without Project) operating conditions are provided for comparison purposes. LOS calculations are included in Appendix E.



LEGEND

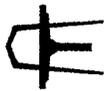
- 90 TRAFFIC MOVEMENT VOLUME (VPH)
- LANE USAGE
- LANE GROUP LEVEL OF SERVICE

KIHEI POLICE STATION

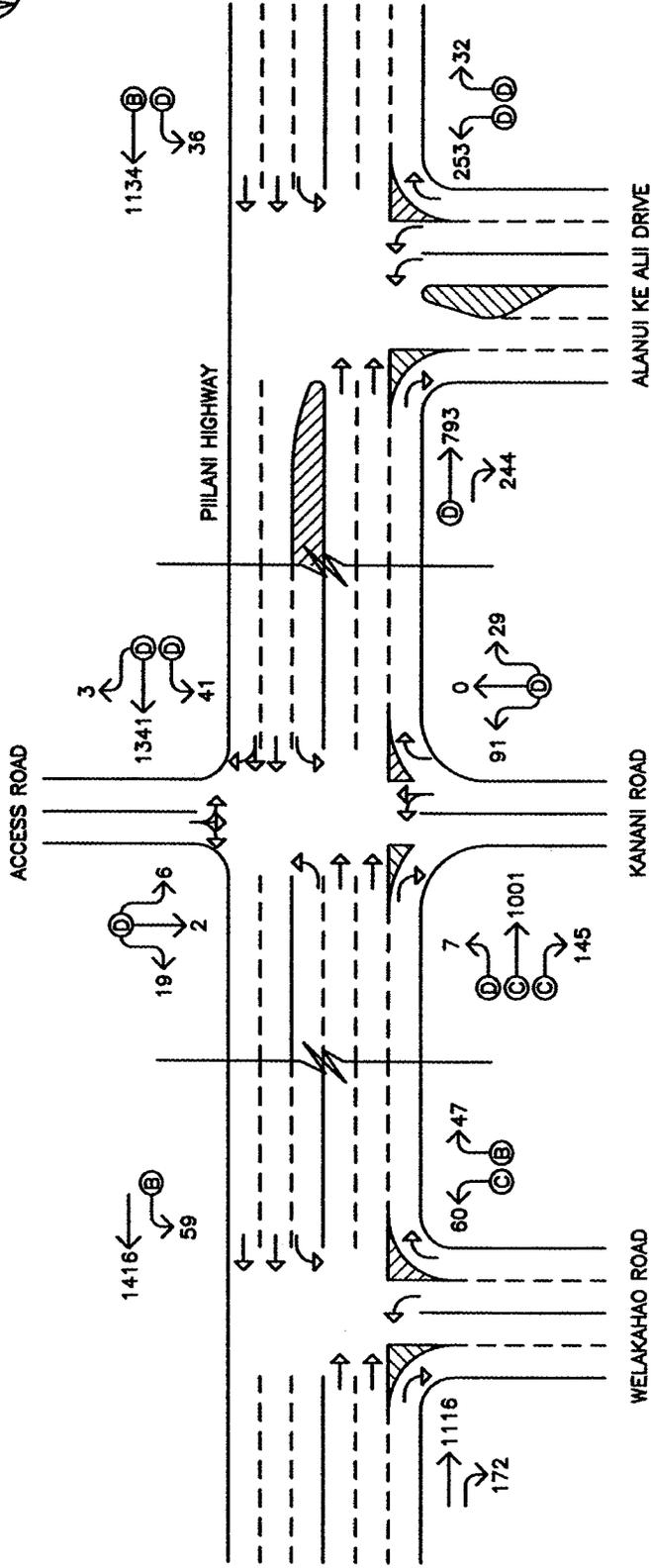
YEAR 2010 AM PEAK HOUR OF TRAFFIC WITH PROJECT

FIGURE

9



WILSON OKAMOTO CORPORATION  
ENGINEERS • PLANNERS



LEGEND

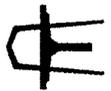
- 90 TRAFFIC MOVEMENT VOLUME (VPH)
- LANE USAGE
- LANE GROUP LEVEL OF SERVICE

KIHEI POLICE STATION

FIGURE

YEAR 2010 PM PEAK HOUR OF TRAFFIC WITH PROJECT

10



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ENGINEERS • PLANNERS

**Table 3: Existing and Projected (Without and With Project) LOS Traffic Operating Conditions**

Intersection	Critical Movement		AM			PM		
			Exist	Year 2010		Exist	Year 2010	
				w/out Proj	w/ Proj		w/out Proj	w/ Proj
Piilani Hwy/ Kanani Rd	Eastbound	LT-TH-RT	D	D	D	D	D	D
	Westbound	LT-TH-RT	D	D	D	D	D	D
	Northbound	LT	D	D	D	D	D	D
		TH-RT	C	C	C	D	D	D
	Southbound	LT	D	D	D	D	D	D
		TH	D	D	D	C	C	C
		RT	C	C	C	C	C	C
Piilani Hwy/ Alanui Ke Alii Dr	Eastbound	LT	D	D	D	D	D	D
		RT	D	D	D	D	D	D
	Northbound	LT	D	D	D	D	D	D
		TH	B	B	B	B	B	B
	Southbound	TH	D	D	D	D	D	D
Piilani Hwy/ Welakahao Rd	Eastbound	LT	C	C	C	C	C	C
		RT	B	B	B	B	B	B
	Northbound	LT	B	B	B	B	B	B

Traffic operations in the project vicinity are expected to remain similar to existing and Year 2010 without project conditions despite the addition of site-generated vehicles to the surrounding roadway network. The critical traffic movements at the intersections of Piilani Highway with Kanani Road and Alanui Ke Alii Drive are expected to continue operating at LOS "D" or better during both peak periods while those at the intersection with Welakahao Road are expected to continue operating at LOS "C" or better during both peak periods. The total traffic volumes entering the study intersections are expected to increase by less than 1% during both peak hours of traffic with proposed project. These increases in the total traffic volumes are in the range of daily volume fluctuations along Piilani Highway and represent a minimal increase in the overall traffic volumes.

## **VI. RECOMMENDATIONS**

Based on the analysis of the traffic data, the following are the recommendations of this study:

1. Maintain sufficient sight distance for motorists to safely enter and exit all project driveways/roadways.
2. Provide adequate on-site loading and off-loading service areas and prohibit off-site loading operations.
3. Provide adequate turn-around area for service, delivery, and refuse collection vehicles to maneuver on the project site to avoid vehicle-reversing maneuvers onto public roadways.
4. Provide sufficient turning radii at all project driveways/roadways to avoid or minimize vehicle encroachments to oncoming traffic lanes.
5. Align the access road for the new Kihei Police Station with Kanani Road to minimize turning conflicts for entering and exiting vehicles.

## **VII. CONCLUSION**

The existing Kihei Police Station along South Kihei Road does not have adequate space to accommodate its staff and functional requirements. As such, the County of Maui, Police Department is planning to construct a new station adjacent to Piilani Highway near Kanani Road. With the development of the new station, the critical traffic movements at the intersections in the project vicinity are anticipated to continue operating at levels of service similar to existing and without project conditions. In addition, the total traffic volumes entering the intersections along Piilani Highway are expected to increase by less than 1% during both peak periods with the proposed project. These increases in the total traffic volumes are in the range of daily volume fluctuations along those roadways and represent a minimal increase in the overall traffic volumes. As such, the new Kihei Police Station is not expected to have a significant impact on the traffic operations in the project vicinity.

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**APPENDIX A**  
**EXISTING TRAFFIC COUNT DATA**

---

WILSON OKAMOTO CORPORATION  
 1907 S. Beretania Street Suite 400  
 Honolulu, HI 96826

Counter: D4-3888

Counted: TO

Weather: Clear

File Name : PiiAlani AM 10-21-08  
 Site Code : 00000001  
 Start Date : 10/21/2008  
 Page No : 1

Groups Printed- Unshifted

Start Time	PiiAlani Highway Southbound						Alanui Ke Alii Westbound						PiiAlani Highway Northbound						Alanui Ke Alii Eastbound					
	Left	Thru	Right	Peds	App. Total		Left	Thru	Right	Peds	App. Total		Left	Thru	Right	Peds	App. Total		Left	Thru	Right	Peds	App. Total	
06:30 AM	0	156	18	0	174	0	0	0	0	0	0	0	7	104	0	0	111	0	39	0	3	0	42	327
06:45 AM	0	182	27	0	209	0	0	0	0	0	0	0	3	127	0	0	130	0	39	0	4	0	43	382
Total	0	338	45	0	383	0	0	0	0	0	0	0	10	231	0	0	241	0	78	0	7	0	85	709
07:00 AM	0	176	25	0	201	0	0	0	0	0	0	0	3	158	0	0	161	0	76	0	1	0	77	439
07:15 AM	0	243	39	0	282	0	0	0	0	0	0	0	10	166	0	0	176	0	58	0	7	0	65	523
07:30 AM	0	246	68	0	314	0	0	0	0	0	0	0	6	163	0	0	169	0	75	0	9	0	84	567
07:45 AM	0	255	86	0	341	0	0	0	0	0	0	0	7	144	0	0	151	0	60	0	12	0	72	564
Total	0	920	218	0	1138	0	0	0	0	0	0	0	26	631	0	0	657	0	269	0	29	0	298	2093
08:00 AM	0	203	102	0	305	0	0	0	0	0	0	0	10	138	0	0	148	0	72	0	10	0	82	535
08:15 AM	0	176	98	0	274	0	0	0	0	0	0	0	24	159	0	0	183	0	100	0	7	0	107	564
Grand Total	0	1637	463	0	2100	0	0	0	0	0	0	0	70	1159	0	0	1229	0	519	0	53	0	572	3901
Approch %	0	78	22	0	100	0	0	0	0	0	0	0	5.7	94.3	0	0	90.7	0	90.7	0	9.3	0	14.7	
Total %	0	42	11.9	0	53.8	0	0	0	0	0	0	0	1.8	29.7	0	0	31.5	0	13.3	0	1.4	0		

Start Time	PiiAlani Highway Southbound						Alanui Ke Alii Westbound						PiiAlani Highway Northbound						Alanui Ke Alii Eastbound					
	Left	Thru	Right	Peds	App. Total		Left	Thru	Right	Peds	App. Total		Left	Thru	Right	Peds	App. Total		Left	Thru	Right	Peds	App. Total	
07:30 AM	0	246	68	0	314	0	0	0	0	0	0	0	6	163	0	0	169	0	75	0	9	0	84	567
07:45 AM	0	255	86	0	341	0	0	0	0	0	0	0	7	144	0	0	151	0	60	0	12	0	72	564
08:00 AM	0	203	102	0	305	0	0	0	0	0	0	0	10	138	0	0	148	0	72	0	10	0	82	535
08:15 AM	0	176	98	0	274	0	0	0	0	0	0	0	24	159	0	0	183	0	100	0	7	0	107	564
Total Volume	0	880	354	0	1234	0	0	0	0	0	0	0	47	604	0	0	651	0	307	0	38	0	345	2230
% App. Total	0	71.3	28.7	0	100	0	0	0	0	0	0	0	7.2	92.8	0	0	89	0	89	0	11	0		
PHF	.000	.863	.868	.000	.905	.000	.000	.000	.000	.000	.000	.000	.490	.926	.000	.000	.889	.000	.768	.000	.792	.000	.806	.983

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:30 AM

WILSON OKAMOTO CORPORATION  
 1907 S. Beretania Street Suite 400  
 Honolulu, HI 96826

Counter: D4-3888  
 Counted: TO  
 Weather: Clear

File Name : PiiAlanui PM 10-21-08  
 Site Code : 00000001  
 Start Date : 10/21/2008  
 Page No : 1

Groups Printed- Unshifted

Start Time	Piliiani Highway Southbound				Alanui Ke Aili Westbound				Piliiani Highway Northbound				Alanui Ke Aili Eastbound								
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:30 PM	0	200	47	0	247	0	0	0	0	0	8	229	0	0	237	53	0	7	0	60	544
03:45 PM	0	210	63	0	273	0	0	0	0	0	11	221	0	0	232	54	0	6	0	60	565
Total	0	410	110	0	520	0	0	0	0	0	19	450	0	0	469	107	0	13	0	120	1109
04:00 PM	0	184	52	0	236	0	0	0	0	0	4	255	0	0	259	65	0	7	0	72	567
04:15 PM	0	182	59	0	241	0	0	0	0	0	8	305	0	0	313	57	0	10	0	67	621
04:30 PM	0	217	52	0	269	0	0	0	0	0	9	222	0	0	231	53	0	5	0	58	558
04:45 PM	0	182	74	0	256	0	0	0	0	0	13	262	0	0	275	59	0	9	0	68	599
Total	0	765	237	0	1002	0	0	0	0	0	34	1044	0	0	1078	234	0	31	0	265	2345
05:00 PM	0	201	61	0	262	0	0	0	0	0	8	228	0	0	236	54	0	2	0	56	554
05:15 PM	0	174	68	0	242	0	0	0	0	0	14	213	0	0	227	38	0	3	0	41	510
Grand Total	0	1550	476	0	2026	0	0	0	0	0	75	1935	0	0	2010	433	0	49	0	482	4518
Approch %	0	76.5	23.5	0	44.8	0	0	0	0	0	3.7	96.3	0	0	44.5	89.8	0	10.2	0	10.7	
Total %	0	34.3	10.5	0	44.8	0	0	0	0	0	1.7	42.8	0	0	44.5	9.6	0	1.1	0	10.7	

Start Time	Piliiani Highway Southbound				Alanui Ke Aili Westbound				Piliiani Highway Northbound				Alanui Ke Aili Eastbound								
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	184	52	0	236	0	0	0	0	0	4	255	0	0	259	65	0	7	0	72	567
04:15 PM	0	182	59	0	241	0	0	0	0	0	8	305	0	0	313	57	0	10	0	67	621
04:30 PM	0	217	52	0	269	0	0	0	0	0	9	222	0	0	231	53	0	5	0	58	558
04:45 PM	0	182	74	0	256	0	0	0	0	0	13	262	0	0	275	59	0	9	0	68	599
Total Volume	0	765	237	0	1002	0	0	0	0	0	34	1044	0	0	1078	234	0	31	0	265	2345
% App. Total	0	76.3	23.7	0	44.8	0	0	0	0	0	3.2	96.8	0	0	44.5	88.3	0	11.7	0	10.7	
PHF	.000	.881	.801	.000	.931	.000	.000	.000	.000	.000	.654	.856	.000	.000	.861	.900	.000	.775	.000	.920	.944

Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 04:00 PM

WILSON OKAMOTO CORPORATION  
 1907 S. Beretania Street Suite 400  
 Honolulu, HI 96826

Counter: D4-3889, D4-5677

Counted: ER, CL

Weather: Clear

File Name : PiiKan AM  
 Site Code : 00000002  
 Start Date : 10/9/2008  
 Page No : 1

Groups Printed- Unshifted

Start Time	Piliiani Highway Southbound				Kanani Road Westbound				Piliiani Highway Northbound				Kanani Road Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
06:30 AM	20	27	3	0	50	17	151	5	0	173	5	139	1	0	145	4	0	1	0	5	373
06:45 AM	24	170	7	0	201	0	0	4	0	4	1	125	3	0	129	15	2	3	0	20	354
Total	44	197	10	0	251	17	151	9	0	177	6	264	4	0	274	19	2	4	0	25	727
07:00 AM	7	176	9	0	192	0	0	1	0	1	5	172	1	1	179	30	2	4	0	36	408
07:15 AM	3	272	15	0	290	0	7	2	0	9	4	164	0	0	168	23	0	4	0	27	494
07:30 AM	0	257	11	0	268	0	1	4	0	5	3	188	1	0	192	21	0	6	0	27	492
07:45 AM	4	264	18	0	286	2	0	4	0	6	11	183	0	0	194	28	1	6	0	35	521
Total	14	969	53	0	1036	2	8	11	0	21	23	707	2	1	733	102	3	20	0	125	1915
08:00 AM	4	167	19	0	190	0	1	2	0	3	7	176	0	0	183	28	2	3	0	33	409
08:15 AM	0	200	18	0	218	0	0	2	0	2	6	172	0	0	178	25	0	10	0	35	433
Grand Total	62	1533	100	0	1695	19	160	24	0	203	42	1319	6	1	1368	174	7	37	0	218	3484
Approch %	3.7	90.4	5.9	0		9.4	78.8	11.8	0		3.1	96.4	0.4	0.1		79.8	3.2	17	0		
Total %	1.8	44	2.9	0	48.7	0.5	4.6	0.7	0	5.8	1.2	37.9	0.2	0	39.3	5	0.2	1.1	0	6.3	

Start Time	Piliiani Highway Southbound				Kanani Road Westbound				Piliiani Highway Northbound				Kanani Road Eastbound				Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left		Thru	Right	Peds	App. Total
07:15 AM	3	272	15	0	290	0	7	2	0	9	4	164	0	0	168	23	0	4	0	27	494
07:30 AM	0	257	11	0	268	0	1	4	0	5	3	188	1	0	192	21	0	6	0	27	492
07:45 AM	4	264	18	0	286	2	0	4	0	6	11	183	0	0	194	28	1	6	0	35	521
08:00 AM	4	167	19	0	190	0	1	2	0	3	7	176	0	0	183	28	2	3	0	33	409
Total Volume	11	960	63	0	1034	2	9	12	0	23	25	711	1	0	737	100	3	19	0	122	1916
% App. Total	1.1	92.8	6.1	0		8.7	39.1	52.2	0		3.4	96.5	0.1	0		82	2.5	15.6	0		
PHF	.688	.882	.829	.000	.891	.250	.321	.750	.000	.639	.568	.945	.250	.000	.950	.893	.375	.792	.000	.871	.919

Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:15 AM

WILSON OKAMOTO CORPORATION  
 1907 S. Beretania Street Suite 400  
 Honolulu, HI 96826

Counter:D4-3889, D4-5677  
 Counted:TO, RY  
 Weather:Clear

File Name : PiiKan PM  
 Site Code : 00000001  
 Start Date : 10/8/2008  
 Page No : 1

Groups Printed- Unshifted

Start Time	Piiilani Highway Southbound			Monsanto Facility Driveway Westbound			Piiilani Highway Northbound			Kanani Road Eastbound			Int. Total								
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru		Right	Peds	App. Total					
03:30 PM	1	197	33	0	231	5	2	42	0	49	4	287	2	0	293	29	0	9	0	38	611
03:45 PM	2	244	30	0	276	0	0	8	0	8	6	298	0	0	304	18	0	7	0	25	613
Total	3	441	63	0	507	5	2	50	0	57	10	585	2	0	597	47	0	16	0	63	1224
04:00 PM	0	227	24	0	251	0	0	3	0	3	13	297	0	0	310	15	0	6	0	21	585
04:15 PM	4	242	47	0	293	0	0	2	0	2	5	309	1	0	315	26	0	11	0	37	647
04:30 PM	1	250	45	0	296	1	0	1	0	2	14	306	0	0	320	22	0	6	0	28	646
04:45 PM	1	245	29	0	275	1	1	6	0	8	9	247	0	0	256	28	0	6	0	34	573
Total	6	964	145	0	1115	2	1	12	0	15	41	1159	1	0	1201	91	0	29	0	120	2451
05:00 PM	1	227	36	0	264	0	0	1	0	1	13	218	0	0	231	16	0	6	0	22	518
05:15 PM	0	221	34	0	255	0	0	0	0	0	8	235	0	0	243	16	0	6	0	22	520
Grand Total	10	1853	278	0	2141	7	3	63	0	73	72	2197	3	0	2272	170	0	57	0	227	4713
Approch %	0.5	86.5	13	0	45.4	9.6	4.1	86.3	0	1.5	3.2	96.7	0.1	0	48.2	74.9	0	25.1	0	4.8	
Total %	0.2	39.3	5.9	0	45.4	0.1	0.1	1.3	0	1.5	1.5	46.6	0.1	0	48.2	3.6	0	1.2	0	4.8	

Start Time	Piiilani Highway Southbound			Monsanto Facility Driveway Westbound			Piiilani Highway Northbound			Kanani Road Eastbound			Int. Total								
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru		Right	Peds	App. Total					
03:45 PM	2	244	30	0	276	0	0	8	0	8	6	298	0	0	304	18	0	7	0	25	613
04:00 PM	0	227	24	0	251	0	0	3	0	3	13	297	0	0	310	15	0	6	0	21	585
04:15 PM	4	242	47	0	293	0	0	2	0	2	5	309	1	0	315	26	0	11	0	37	647
04:30 PM	1	250	45	0	296	1	0	1	0	2	14	306	0	0	320	22	0	6	0	28	646
04:45 PM	1	250	45	0	296	1	0	1	0	2	14	306	0	0	320	22	0	6	0	28	646
Total Volume	7	963	146	0	1116	1	0	14	0	15	38	1210	1	0	1249	81	0	30	0	111	2491
% App. Total	0.6	86.3	13.1	0	94.3	6.7	0	93.3	0	4.69	3	96.9	0.1	0	97.6	73	0	27	0	7.50	963
PHF	.438	.963	.777	.000	.943	.250	.000	.438	.000	.469	.679	.979	.250	.000	.976	.779	.000	.682	.000	.750	

Peak Hour Analysis From 03:30 PM to 05:15 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 03:45 PM

WILSON OKAMOTO CORPORATION  
 1907 S. Beretania Street Suite 400  
 Honolulu, HI 96826

Counter: D4-3890  
 Counted: TO  
 Weather: Clear

File Name : PiiWei AM 10-30-08  
 Site Code : 00000002  
 Start Date : 4/2/2008  
 Page No : 1

Groups Printed- Unshifted

Start Time	Piliiani Highway Southbound						Westbound			Piliiani Highway Northbound						Welekahau Road Eastbound									
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
	06:00 AM	0	99	11	110	0	4	106	0	110	11	0	0	11	0	0	2	13	233						
06:15 AM	0	150	16	166	0	2	138	0	140	13	0	0	13	0	9	9	22	328							
06:30 AM	0	221	17	238	0	2	140	0	142	0	0	0	13	0	10	10	23	403							
06:45 AM	0	249	20	269	0	7	175	0	182	19	0	0	19	0	9	9	28	479							
Total	0	719	64	783	0	15	559	0	574	56	0	0	56	0	30	30	86	1443							
07:00 AM	0	252	18	270	0	9	214	0	223	21	0	0	21	0	10	10	31	524							
07:15 AM	0	258	15	273	0	5	238	0	243	17	0	0	17	0	15	15	32	548							
07:30 AM	0	286	27	313	0	6	251	0	257	16	0	0	16	0	11	11	27	597							
07:45 AM	0	355	26	381	0	10	226	0	236	25	0	0	25	0	15	15	40	657							
Total	0	1151	86	1237	0	30	929	0	959	79	0	0	79	0	51	51	130	2326							
08:00 AM	0	298	23	321	0	7	225	0	232	19	0	0	19	0	17	17	36	589							
08:15 AM	0	278	18	296	0	19	276	0	295	10	0	0	10	0	14	14	24	615							
08:30 AM	0	209	21	230	0	15	260	0	275	17	0	0	17	0	10	10	27	532							
08:45 AM	0	194	34	228	0	8	225	0	233	22	0	0	22	0	9	9	31	492							
Total	0	979	96	1075	0	49	986	0	1035	68	0	0	68	0	50	50	118	2228							
Grand Total	0	2849	246	3095	0	94	2474	0	2568	203	0	0	203	0	131	131	334	5997							
Apprch %	0	92.1	7.9		0	3.7	96.3	0		60.8	0	0	60.8	0	39.2	39.2									
Total %	0	47.5	4.1	51.6	0	1.6	41.3	0	42.8	3.4	0	0	3.4	0	2.2	2.2	5.6								

Start Time	Piliiani Highway Southbound						Westbound			Piliiani Highway Northbound						Welekahau Road Eastbound									
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
	07:30 AM	0	286	27	313	0	6	251	0	257	16	0	0	16	0	11	11	27	597						
07:45 AM	0	355	26	381	0	10	226	0	236	25	0	0	25	0	15	15	40	657							
08:00 AM	0	298	23	321	0	7	225	0	232	19	0	0	19	0	17	17	36	589							
08:15 AM	0	278	18	296	0	19	276	0	295	10	0	0	10	0	14	14	24	615							
Total Volume	0	1217	94	1311	0	42	978	0	1020	70	0	0	70	0	57	57	127	2458							
% App. Total	0	92.8	7.2		0	4.1	95.9	0		55.1	0	0	55.1	0	44.9	44.9									
PHF	.000	.857	.870	.860	.000	.553	.886	.000	.864	.700	.000	.838	.794	.935											

Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 07:30 AM

WILSON OKAMOTO CORPORATION  
 1907 S. Beretania Street Suite 400  
 Honolulu, HI 96826

Counter:D4-3890  
 Counted:TO  
 Weather:Clear

File Name : PiiWei PM 10-30-08  
 Site Code : 00000002  
 Start Date : 4/1/2008  
 Page No : 1

Groups Printed- Unshifted

Start Time	Piliiani Highway Southbound				Westbound				Piliiani Highway Northbound				Weikahau Road Eastbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	267	34	301	0	365	0	380	22	0	14	36	717				
03:15 PM	0	261	30	291	0	393	0	410	14	0	11	25	726				
03:30 PM	0	254	47	301	0	376	0	385	17	0	14	31	717				
03:45 PM	0	239	47	286	0	386	0	399	25	0	13	38	723				
Total	0	1021	158	1179	0	1520	0	1574	78	0	52	130	2883				
04:00 PM	0	265	45	310	0	359	0	377	20	0	15	35	722				
04:15 PM	0	247	41	288	0	408	0	426	14	0	13	27	741				
04:30 PM	0	292	43	335	0	340	0	351	11	0	11	22	708				
04:45 PM	0	247	43	290	0	282	0	297	15	0	7	22	609				
Total	0	1051	172	1223	0	1389	0	1451	60	0	46	106	2780				
05:00 PM	0	252	40	292	0	291	0	303	23	0	11	34	629				
05:15 PM	0	232	51	283	0	301	0	315	13	0	15	28	626				
05:30 PM	0	242	46	288	0	228	0	236	12	0	10	22	546				
05:45 PM	0	236	29	265	0	211	0	221	11	0	9	20	506				
Total	0	962	166	1128	0	1031	0	1075	59	0	45	104	2307				
Grand Total	0	3034	496	3530	0	3940	0	4100	197	0	143	340	7970				
Apprch %	0	85.9	14.1		3.9	96.1	0		57.9	0	42.1						
Total %	0	38.1	6.2	44.3	2	49.4	0	51.4	2.5	0	1.8	4.3					

Start Time	Piliiani Highway Southbound				Westbound				Piliiani Highway Northbound				Weikahau Road Eastbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:30 PM	0	254	47	301	0	376	0	385	17	0	14	31	717				
03:45 PM	0	239	47	286	0	386	0	399	25	0	13	38	723				
04:00 PM	0	265	45	310	0	359	0	377	20	0	15	35	722				
04:15 PM	0	247	41	288	0	408	0	426	14	0	13	27	741				
Total Volume	0	1005	180	1185	0	1529	0	1587	76	0	55	131	2903				
% App. Total	0	84.8	15.2		3.7	96.3	0		58	0	42						
PHF	.000	.948	.957	.956	.806	.937	.000	.931	.760	.000	.917	.862	.979				

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Entire Intersection Begins at 03:30 PM



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**APPENDIX B**

**LEVEL OF SERVICE DEFINITIONS**

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## LEVEL OF SERVICE DEFINITIONS

### LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

**Level of Service (LOS)** for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average control delay per vehicle, typically a 15-min analysis period. The criteria are given in the following table.

**Table 1: Level-of-Service Criteria for Signalized Intersections**

Level of Service	Control Delay per Vehicle (sec/veh)
A	$\leq 10.0$
B	$>10.0$ and $\leq 20.0$
C	$>20.0$ and $\leq 35.0$
D	$>35.0$ and $\leq 55.0$
E	$>55.0$ and $\leq 80.0$
F	$>80.0$

Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group.

**Level of Service A** describes operations with low control delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.

**Level of Service B** describes operations with control delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.

**Level of Service C** describes operations with control delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

**Level of Service D** describes operations with control delay greater than 35 and up to 55 sec per vehicle. At level of service D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

**Level of Service E** describes operation with control delay greater than 55 and up to 80 sec per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.

**Level of Service F** describes operations with control delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

## LEVEL OF SERVICE DEFINITIONS

### LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

**Level of Service (LOS)** criteria are given in Table 1. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue to the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. If the degree of saturation is greater than about 0.9, average control delay is significantly affected by the length of the analysis period.

**Table 1: Level-of-Service Criteria for Unsignalized Intersections**

<b>Level of Service</b>	<b>Average Control Delay (Sec/Veh)</b>
A	$\leq 10.0$
B	$>10.0$ and $\leq 15.0$
C	$>15.0$ and $\leq 25.0$
D	$>25.0$ and $\leq 35.0$
E	$>35.0$ and $\leq 50.0$
F	$>50.0$

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**APPENDIX C**

**CAPACITY ANALYSIS CALCULATIONS  
EXISTING PEAK HOUR TRAFFIC ANALYSIS**

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HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Kanani

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Existing  
 N/S St:

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	1	2	0	1	2	1
LGConfig	LTR			LTR			L	TR		L	T	R
Volume	102	3	25	2	2	12	27	885	1	8	1194	66
Lane Width	12.0			12.0			12.0	12.0		12.0	12.0	12.0
RTOR Vol	3			1			0			7		

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	38.0				31.0		66.0	
Yellow	4.0				4.0		4.0	
All Red	1.0				1.0		1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LTR	347	1370	0.39	0.25	47.2	D	47.2	D
Westbound								
LTR	415	1637	0.05	0.25	42.4	D	42.4	D
Northbound								
L	366	1770	0.08	0.21	48.1	D		
TR	1560	3546	0.59	0.44	32.4	C	32.9	C
Southbound								
L	366	1770	0.03	0.21	47.5	D		
T	1561	3547	0.91	0.44	48.7	D	47.6	D
R	697	1583	0.10	0.44	24.7	C		
Intersection Delay = 42.2 (sec/veh)					Intersection LOS = D			

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Kanani

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Existing  
 N/S St:

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	1	2	0	1	2	1
LGConfig	LTR			LTR			L	TR		L	R	
Volume	91	0	29	2	1	12	41	1281	1	6	956	145
Lane Width	12.0			12.0			12.0	12.0		12.0	12.0	12.0
RTOR Vol	3			1			0			7		

Duration 1.00 Area Type: All other areas  
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	38.0				32.0		65.0	
Yellow	4.0				4.0		4.0	
All Red	1.0				1.0		1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
	Capacity		v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LTR 345 1363 0.42 0.25 47.6 D 47.6 D

Westbound

LTR 409 1615 0.07 0.25 42.7 D 42.7 D

Northbound

L 378 1770 0.12 0.21 47.7 D  
 TR 1537 3546 0.89 0.43 46.5 D 46.5 D

Southbound

L 378 1770 0.02 0.21 46.6 D  
 T 1537 3547 0.66 0.43 34.8 C 33.9 C  
 R 686 1583 0.21 0.43 26.7 C

Intersection Delay = 41.2 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Ke Alii Alanui

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Existing  
 N/S St: Piilani Hwy

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	1	2	0	0	2	0
LGConfig	L		R				L	T			T	
Volume	308		38				47	605			871	
Lane Width	12.0		12.0				12.0	12.0			12.0	
RTOR Vol			19									

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		43.0				37.0	55.0	
Yellow		4.0				4.0	4.0	
All Red		1.0				1.0	1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	985	3437	0.39	0.29	43.2	D	42.9	D
R	454	1583	0.05	0.29	38.8	D		
Westbound								
Northbound								
L	437	1770	0.12	0.25	44.0	D		
T	2294	3547	0.30	0.65	11.7	B	14.0	B
Southbound								
T	1301	3547	0.74	0.37	43.4	D	43.4	D

Intersection Delay = 33.0 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: PM Peak  
 Project ID:  
 E/W St: Ke Alii Alanui

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Existing  
 N/S St: Piilani Hwy

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	1	2	0	0	2	0
LGConfig	L		R				L	T			T	
Volume	242		31				34	1081			754	
Lane Width	12.0		12.0				12.0	12.0			12.0	
RTOR Vol			16									

Duration 1.00 Area Type: All other areas  
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		43.0				39.0	53.0	
Yellow		4.0				4.0	4.0	
All Red		1.0				1.0	1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	985	3437	0.27	0.29	41.5	D	41.3	D
R	454	1583	0.04	0.29	38.6	D		
Westbound								
Northbound								
L	460	1770	0.09	0.26	42.1	D		
T	2294	3547	0.55	0.65	14.8	B	15.6	B
Southbound								
T	1253	3547	0.65	0.35	41.8	D	41.8	D

Intersection Delay = 27.5 (sec/veh) Intersection LOS = C





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**APPENDIX D**

**CAPACITY ANALYSIS CALCULATIONS  
PROJECTED YEAR 2010 PEAK HOUR TRAFFIC  
ANALYSIS WITHOUT PROJECT**

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HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Kanani

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Year 2010 w/out project  
 N/S St:

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	1	2	0	1	2	1
LGConfig	LTR			LTR			L	TR		L	R	
Volume	102	3	25	2	2	12	27	927	1	8	1250	66
Lane Width	12.0			12.0			12.0	12.0		12.0	12.0	12.0
RTOR Vol	3			1			0			7		

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	36.0				30.5		68.5	
Yellow	4.0				4.0		4.0	
All Red	1.0				1.0		1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
<b>Eastbound</b>								
LTR	329	1370	0.42	0.24	49.0	D	49.0	D
<b>Westbound</b>								
LTR	393	1636	0.06	0.24	44.0	D	44.0	D
<b>Northbound</b>								
L	360	1770	0.08	0.20	48.5	D		
TR	1619	3546	0.60	0.46	31.1	C	31.5	C
<b>Southbound</b>								
L	360	1770	0.03	0.20	47.9	D		
T	1620	3547	0.92	0.46	48.4	D	47.2	D
R	723	1583	0.10	0.46	23.2	C		
Intersection Delay = 41.6 (sec/veh)					Intersection LOS = D			

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Kanani

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Year 2010 w/out project  
 N/S St:

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	1	2	0	1	2	1
LGConfig	LTR			LTR			L	TR		L	R	
Volume	91	0	29	2	1	12	41	1341	1	6	1001	145
Lane Width	12.0			12.0			12.0	12.0		12.0	12.0	12.0
RTOR Vol	3			1			0			7		

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru		A	
Right	A				Right		A	
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	37.0				31.5		66.5	
Yellow	4.0				4.0		4.0	
All Red	1.0				1.0		1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c g/C		Lane Group Delay LOS		Approach Delay LOS	
Eastbound								
LTR	336	1363	0.43	0.25	48.5	D	48.5	D
Westbound								
LTR	398	1615	0.07	0.25	43.4	D	43.4	D
Northbound								
L	372	1770	0.12	0.21	48.1	D		
TR	1572	3546	0.91	0.44	48.1	D	48.1	D
Southbound								
L	372	1770	0.02	0.21	47.0	D		
T	1573	3547	0.68	0.44	34.4	C	33.4	C
R	702	1583	0.21	0.44	25.8	C		

Intersection Delay = 41.8 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Ke Alii Alanui

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Year 2010 w/out project  
 N/S St: Piilani Hwy

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	1	2	0	0	2	0
LGConfig	L		R				L	T			T	
Volume	322		40				49	633			912	
Lane Width	12.0		12.0				12.0	12.0			12.0	
RTOR Vol			20									

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		43.0				37.0	55.0	
Yellow		4.0				4.0	4.0	
All Red		1.0				1.0	1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
<b>Eastbound</b>								
L	985	3437	0.40	0.29	43.4	D	43.2	D
R	454	1583	0.06	0.29	38.8	D		
<b>Westbound</b>								
<b>Northbound</b>								
L	437	1770	0.13	0.25	44.1	D		
T	2294	3547	0.31	0.65	11.8	B	14.1	B
<b>Southbound</b>								
T	1301	3547	0.77	0.37	44.9	D	44.9	D

Intersection Delay = 33.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: PM Peak  
 Project ID:  
 E/W St: Ke Alii Alanui

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Year 2010 w/out project  
 N/S St: Piilani Hwy

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	1	2	0	0	2	0
LGConfig	L		R				L	T			T	
Volume	253		32				36	1132			789	
Lane Width	12.0		12.0				12.0	12.0			12.0	
RTOR Vol			16									

Duration 1.00 Area Type: All other areas  
 Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		43.0				39.0	53.0	
Yellow		4.0				4.0	4.0	
All Red		1.0				1.0	1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	985	3437	0.28	0.29	41.6	D	41.5	D
R	454	1583	0.04	0.29	38.6	D		
Westbound								
Northbound								
L	460	1770	0.09	0.26	42.2	D		
T	2294	3547	0.57	0.65	15.2	B	16.1	B
Southbound								
T	1253	3547	0.68	0.35	42.7	D	42.7	D

Intersection Delay = 28.1 (sec/veh) Intersection LOS = C







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**APPENDIX E**

**CAPACITY ANALYSIS CALCULATIONS  
PROJECTED YEAR 2010 PEAK HOUR TRAFFIC  
ANALYSIS WITH PROJECT**

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HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Kanani

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Year 2010 w/ project  
 N/S St:

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	1	2	0	1	2	1
LGConfig	LTR			LTR			L	TR		L	TR	
Volume	102	5	25	3	2	13	27	927	5	16	1250	66
Lane Width	12.0			12.0			12.0	12.0		12.0	12.0	12.0
RTOR Vol	3			1			0			7		

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
WB Left		A			SB Left	A		
Thru		A			Thru		A	
Right		A			Right		A	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	36.0				30.5		68.5	
Yellow	4.0				4.0		4.0	
All Red	1.0				1.0		1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
LTR	329	1372	0.42	0.24	49.1	D	49.1	D
Westbound								
LTR	390	1626	0.06	0.24	44.1	D	44.1	D
Northbound								
L	360	1770	0.08	0.20	48.5	D		
TR	1618	3544	0.60	0.46	31.1	C	31.6	C
Southbound								
L	360	1770	0.05	0.20	48.2	D		
T	1620	3547	0.92	0.46	48.4	D	47.2	D
R	723	1583	0.10	0.46	23.2	C		

Intersection Delay = 41.6 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Kanani

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Year 2010 w/ project  
 N/S St:

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	1	2	0	1	2	1
LGConfig	LTR			LTR			L	TR		L	TR	
Volume	91	0	29	6	2	19	41	1341	3	7	1001	145
Lane Width	12.0			12.0			12.0	12.0		12.0	12.0	12.0
RTOR Vol	3			1			0			7		

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	37.0				31.5		66.5	
Yellow	4.0				4.0		4.0	
All Red	1.0				1.0		1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS

Eastbound

LTR 334 1356 0.43 0.25 48.5 D 48.5 D

Westbound

LTR 387 1567 0.14 0.25 44.3 D 44.3 D

Northbound

L 372 1770 0.12 0.21 48.1 D  
 TR 1572 3546 0.91 0.44 48.3 D 48.3 D

Southbound

L 372 1770 0.02 0.21 47.0 D  
 T 1573 3547 0.68 0.44 34.4 C 33.4 C  
 R 702 1583 0.21 0.44 25.8 C

Intersection Delay = 42.0 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: AM Peak  
 Project ID:  
 E/W St: Ke Alii Alanui

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Year 2010 w/ project  
 N/S St: Piilani Hwy

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	1	2	0	0	2	0
LGConfig	L		R				L	T			T	
Volume	322		40				49	637			913	
Lane Width	12.0		12.0				12.0	12.0			12.0	
RTOR Vol			20									

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru	A		
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		43.0				37.0	55.0	
Yellow		4.0				4.0	4.0	
All Red		1.0				1.0	1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
<b>Eastbound</b>								
L	985	3437	0.40	0.29	43.4	D	43.2	D
R	454	1583	0.06	0.29	38.8	D		
<b>Westbound</b>								
<b>Northbound</b>								
L	437	1770	0.13	0.25	44.1	D		
T	2294	3547	0.31	0.65	11.8	B	14.1	B
<b>Southbound</b>								
T	1301	3547	0.77	0.37	44.9	D	44.9	D

Intersection Delay = 33.8 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: CL  
 Agency:  
 Date: 11/24/2008  
 Period: PM Peak  
 Project ID:  
 E/W St: Ke Alii Alanui

Inter.:  
 Area Type: All other areas  
 Jurisd:  
 Year : Year 2010 w/ project  
 N/S St: Piilani Hwy

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	2	0	1	0	0	0	1	2	0	0	2	0
LGConfig	L		R				L	T			T	
Volume	253		32				36	1134			793	
Lane Width	12.0		12.0				12.0	12.0			12.0	
RTOR Vol			16									

Duration 1.00 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A	A	
Right		A			Right			
Peds					Peds			
WB Left					SB Left			
Thru					Thru		A	
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		43.0				39.0	53.0	
Yellow		4.0				4.0	4.0	
All Red		1.0				1.0	1.0	

Cycle Length: 150.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	985	3437	0.28	0.29	41.6	D	41.5	D
R	454	1583	0.04	0.29	38.6	D		
Westbound								
Northbound								
L	460	1770	0.09	0.26	42.2	D		
T	2294	3547	0.57	0.65	15.3	B	16.1	B
Southbound								
T	1253	3547	0.68	0.35	42.8	D	42.8	D

Intersection Delay = 28.2 (sec/veh) Intersection LOS = C





# **APPENDIX G.**

## **Civil Design Criteria**

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## **CIVIL DESIGN CRITERIA**

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### **SITE ACCESS AND PARKING**

References:

1. American with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG), 1991.
2. Hawaii Revised Statutes section 103-50.

The Police Station will be located east of Pi'ilani Highway near the intersection of Kainani Drive in Kihei on the Island of Maui. The proposed property (TMK: 2-2-02: 070) encompasses 150 acres, in which the Police Station project will subdivide out approximately 10 acres. The property is owned and maintained by the County of Maui.

Land uses immediately surrounding the site include Monsanto's agricultural facility to the north, and residential developments to the west. An access easement which services the project site is located along the northern boundary. The Kainani/ Pi'ilani Highway intersection is currently signalized.

The *Hawaii Statewide Uniform Design Manual For Streets and Highways*, DOT Highways Division & DPW Counties of the State of Hawaii, October 1980, will be used to design the on-site access roads. The proposed parking lots will be designed to comply with the County of Maui Code and will be designed in conformance with the County of Maui Standard Details and Specifications for Public Works Construction.

The project will comply with Americans with Disabilities (ADA) Guidelines. Final plans will be submitted to the Disability and Communication Access Board (DCAB) for ADA review. Fire access will also be provided in compliance with the Uniform Fire Code, which will encompass the building structures and be clearly marked with appropriate signage and markings.

The parking lots will provide 177 standard stalls and 7 accessible stalls. In addition, a secured parking area (67 stalls) will be provided for impounded vehicles.

### **GRADING & DRAINAGE SYSTEM**

References:

1. Flood Insurance Rate Map (FIRM), County of Maui.
2. *Rules for the Design of Storm Drainage Facilities in the County of Maui*. Department of Public Works and Waste Management, County of Maui, November 1995.

According to FIRM map 150003 0265C dated September 6, 1989, the proposed police station lies in Zone C (Areas of minimal flooding). Grading and drainage of the site will be in conformance with "Rules for the Design of Storm Drainage Facilities in the County of Maui".

The site is undeveloped land characterized by moderate hills up to 20% slope, in which ground cover would be characterized as sparse. The surface soil is classified as brown clayey silt with sand and gravel. The clayey silt is generally in a medium stiff condition and extends to depths ranging from 1 to 3 feet.

Underlying the clayey silt was grayish brown highly weathered basalt. The highly weathered basalt is dense to medium hard condition, and extended to depths ranging from 5.5 to 20 feet. Beneath the highly weathered basalt, gray moderately basalt was encountered, which was in a slightly vesicular, fractured, and medium hard to hard condition.

Rainfall runoff generated from the site sheet flows toward the western portion of the property toward Pi'ilani Highway. Since the site is currently undeveloped, there are no on-site drainage structures, however, there is a concrete lined ditch along the highway which collects storm runoff along the mauka side of the highway. The table below summarizes the existing runoff flows and their discharge point from the site. The flows were estimated using the Rational Method and a 50-year recurrence interval.

<i>Existing Drainage Area</i>	<i>Area (acres)</i>	<i>Runoff (cfs)</i>
Existing Condition	7.65 acres	9.64 cfs

**Proposed Drainage Plan**

The intent of the drainage plan is to minimize the drainage impact of the proposed project, and provide adequate storm water disposal for on-site generated runoff. The table below summarizes the proposed runoff flows and their discharge point from each site.

<i>Proposed Drainage Area</i>	<i>Area (acres)</i>	<i>Runoff (cfs)</i>
Proposed Condition	7.65 acres	24.67 cfs

With the proposed construction of the Police Station, a peak flow of 24.67 cubic feet per second will be generated vs. an existing peak flow of 9.64 cubic feet per second. The increase in peak flow will be 15.03 cubic feet per second.

**Proposed Mitigation Measures**

Storm water runoff will be directed away from the buildings and the net increase in runoff due to the proposed development will be directed into a detention basin. A 750 cubic yard detention basin is required to attenuate the increase in flow, where the project will construct a 1,000 cubic yard detention basin to accommodate this increase.

**WASTEWATER SYSTEM**

Per discussion with County of Maui's Department of Environmental Management, connection would be available on an 8" line and manhole on Kanani Street, located west of the project site. The 8" line connects to a 36" line at South Kihei Road. The 36" line flows to Kihei WWPS #6, which pumps the wastewater to the Kihei Wastewater

Reclamation Facility. Currently, there is available capacity at the plant to accommodate the wastewater flows, where the average daily flow is approximately 4 mgd with a capacity is 8 mgd. The collection line is at 0 to 20% of capacity in Kanani, Halona and Auhana Roads and about 50% to 60% in South Kihei Road.

*ESTIMATED WASTEWATER DEMANDS:*

Assumptions:           20 staff @ 25 gpd = 500 gpd  
                               10 visitors @ 10 gpd = 100 gpd  
                               15 car washes @ 20 gpd = 300 gpd

Average Flow = 500 gpd + 100 gpd + 300 gpd = 900 gallons per day (gpd)

- Average Flow: 900 gpd
- Maximum Flow: Flow Factor = 5 (Babbit Chart)  
                           5 x 900 gpd = 4,500 gpd
- Dry Weather I/I: 5 gpcd (Sewer above ground water table)  
                           20 people x 5 gpcd = 100 gpd
- Design Average Flow = 900 gpd + 100 gpd = 1,000 gpd
- Design Maximum Flow = 4,500 gpd + 100 gpd = 3,600 gpd
- Wet Weather I/I: 1,250 gallons per acre/ day (gad)  
                           (Sewer above groundwater table)  
                           Proposed Development Area = 10 acres  
                           10 acre x 1,250 gad = 12,500 gpd
- Design Peak Flow = 4,600 gpd + 12,500 gpd = 17,100 gpd

**WATER SYSTEM**

Water service within the Kihei area is serviced from a reservoir located at the 311.5 ft. elevation, and a network of pipelines ranging from 12-inch to 6-inch. A 30-inch high pressure line is also located makai of the project site, which is designated a DWS transmission pipeline.

DWS will accept connection to the existing 8-inch waterline along Kanakanui Rd. for potable water service if the residual pressure is adequate for the intended purpose. Although the irrigation system and on-site fire hydrants will utilize non-potable water, the building fire sprinkler system will utilize (DWS) potable water. If required, a fire pump will be installed to provide the required flows and pressures to the fire sprinkler system.

*ESTIMATED WATER DEMAND:*

Fire flow requirements (Per Mechanical). 3,500 gpm (500-750 gpm fire sprinkler)

Assume 20 staff \* 25 gallons / person / day = 500 gpd  
 Assume 10 visitors \* 10 gallons / person / day = 100 gpd  
 Assume 15 car washes \* 30 gallons / wash = 450 gpd.

Total water demand: 1,050 gpd

### **NON-POTABLE WATER SYSTEM**

An existing 1.0 MG non-potable reservoir, which is serviced by the County of Maui Wastewater Reclamation Division is located northeast of the project site. The reservoir is located at the 300+/- ft. elevation and provides non-potable service to areas north of the Kihei Wastewater Reclamation Facility. The non-potable system also services the Monsanto property, which is located directly south of the Treatment Facility.

The project proposes to utilize non-potable water for irrigation purposes, as well as on-site fire hydrants. Connection to the existing non-potable system is proposed within the Monsanto property, in which connection will be made to an existing 12-inch line located approximately 800 ft. north of the project site. Right-of-Entry and an agreement to connect to the non-potable water system will be required between the County and Haleakala Ranch/ Monsanto.

#### *FIRE FLOW:*

(On-Site Fire Hydrants)

- 2,750 gpm – 3,000 gpm

#### *LANDSCAPE WATER DEMAND:*

(Per Landscape Architect)

Total Estimated Landscape Area: 103,180 sf (2.4 acres)

- Estimated Average Daily Water Usage: 16,500 gpd
- Estimated Maximum Demand: 60 gpm