LINDA CROCKETT LINGLE
MAYOR

COUNTY OF MAUI
DEPARTMENT OF FIRE CONTROL
200 DAIRY ROAD
KAHULUI, MAUI, HAWAII 96732
(808) 243-7561

RONALD P. DAVIS
CHIEF
RONALD DeMELLO
DEPUTY CHIEF

March 22, 1993

Mr. Brian Choy, Director
Office of Environmental Quality Control
220 S. King Street, 4th Floor
Honolulu, HI 96813

Dear Mr. Choy:

SUBJECT: KULA FIRE STATION TMK: 2-2-14:por. 1,
KULA, MAUI, HAWAII

In accordance with the requirements of Chapter 343, Hawaii Revised Statutes, and Chapter 200 of Title 11, Administrative Rules, a Final Environmental Assessment has been prepared for the subject project.

Notice of availability of the Draft Environmental Assessment for the project was published in the February 23, 1993 OEQC Bulletin. Letters received during the public comment period, as well as our responses, have been included in the Final Environmental Assessment.

As the proposing agency, we are forwarding herewith, one copy of the OEQC Bulletin Publication form, and four copies of the Final Environmental Assessment. We have determined that there will be no significant impacts as a result of the project and, therefore, are filing the Final Environmental Assessment as a negative declaration. We respectfully request that public notice of the Final Environmental Assessment be published in the OEQC Bulletin.

Very truly yours,

Ronald P. Davis
RONALD P. DAVIS
Fire Chief

Enclosures

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1993-04-08-MA FEA - Kula Fire Station

APR _ 8 1993

FINAL ENVIRONMENTAL ASSESSMENT

KULA FIRE STATION

Prepared for:

County of Maui
Department of Fire Control

April 1993

Michael T. Munekiyo Consulting, Inc.

FINAL ENVIRONMENTAL ASSESSMENT

KULA FIRE STATION

Prepared for:

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Preface

The County of Maui, Department of Fire Control, proposes to construct a new Kula Fire Station in Kula, Maui, Hawaii (TMK 2-2-14:por. of 1). Pursuant to Chapter 343, Hawaii Revised Statutes, Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement Rules, and in connection with the Special Use Permit (SUP) application, this Environmental Assessment (EA) documents the Project's technical characteristics and environmental impacts, and advances findings and conclusions relative to the significance of the project.

Summary

Applicant and Landowner

The Applicant for the proposed project is the County of Maui, Department of Fire Control. The landowner of the affected property is the County of Maui.

Property Location and Description

The subject property is located makai (west) of the Kula Highway at the intersection of Kula Highway and Calasa Road. The fire station site is proposed to occupy a portion of the tax map parcel (TMK: 2-2-14:por. 1) on which the Kula Recreation Center is proposed. The fire station would occupy approximately one (1) acre of the 10.3 acre parcel.

The fire station site is presently vacant. Existing vegetation at the site consists mainly of black wattle trees, koa haole, lantana, panini cactus, morning glory, guava, castor bean, kikuyu grass and various other grasses and weeds.

Proposed Action

The proposed Kula Fire Station consists of a single story concrete masonry unit (CMU) and wood-framed structure of approximately 3,900 square feet which will include a parking garage for two (2) fire trucks, a dining/meeting room, a kitchen, a dormitory providing space for six (6) beds, lavatories, showers, officer's quarters, office space, an emergency generator room, a fire extinguisher room, and a weight room. In addition to the CMU structure, there will be an above-ground fuel storage tank, a concrete pad truck turn-around and wash area (approximately 33 feet by 35 feet), an oil intercepter, emergency traffic signal lights, and a septic tank. While not funded at this time, the site is also designed to accommodate emergency medical services. Such medical services would be funded by the State of Hawaii.

Access to the station will be gained from the south side of the property from Calasa Road. A second driveway providing fire trucks with direct access to Kula Highway will be used for emergency purposes only. A total of fourteen (14) parking stalls and a handicapped stall are proposed for employee and public use.

Findings and Conclusions

The proposed Kula Fire Station will increase service response in the Kula region of the County. A major portion of the region extends beyond the standard five (5) mile service radius of the Makawao Fire Station, which is the closest existing station. The proposed station will extend coverage throughout a significant portion of the Kula region, from the Five Trees area to Kula Hospital. The Kula Fire Station also adds to the service capability within East Maui. Improved fire protection resulting from the proposed project will promote the health, safety and welfare of the region.

The proposed project will involve earthwork and building construction activities. In the short term, these activities may generate temporary nuisances normally associated with construction activities. However, dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind blown emissions. All construction activities are anticipated to be limited to normal daylight working hours. Impacts generated from construction activities are not considered adverse.

From a long-term perspective, the proposed project is not anticipated to result in adverse environmental impacts. Although the existing stone features, walls and alignments appear to be associated with historic ranching and agricultural practices, these are located outside of the site. The proposed project is anticipated to have "no effect" on significant historic sites. Fire alarms and fire truck sirens normally associated with emergency activities will generate noise for brief periods of time. Adverse noise conditions are not anticipated for sustained periods.

Although the fire station site would be occupying one acre of the 10.3 acre Kula Recreation Center site, the existing sloping nature of the site makes it difficult to utilize the entire site for active recreation purposes. Plans for the recreation center still include two multi-purpose ballfields, two picnic sites with four tables/benches at each site, one fitness area with exercise apparatus, and paved pathways for passive recreation.

With five (5) employees projected to be stationed at the fire station per 24-hour shift, the proposed project is not anticipated to have an adverse effect upon public service needs, such as police, medical facilities and schools. In addition, the impact upon roadways, water, wastewater, drainage and other infrastructure systems are not considered significant.

In light of the foregoing findings, it is concluded that the proposed action will not result in any significant impacts.

Chapter 1

Project Overview

I. PROJECT OVERVIEW

A. PROJECT LOCATION, EXISTING USE, AND LAND OWNERSHIP

The applicant, County of Maui, Department of Fire Control, proposes to construct a new Kula Fire Station located in Kula, Maui, Hawaii (TMK 2-2-14:por. 1). The subject property is located makai (west) of the Kula Highway at the intersection of Kula Highway and Calasa Road. See Figure 1.

The fire station site is proposed to occupy a portion of the tax map parcel on which the Kula Recreation Center is proposed. The fire station would occupy approximately one acre of the 10.3 acre parcel.

The fire station site is currently vacant. Existing vegetation at the site consist mainly of black wattle trees, koa haole, lantana, panini cactus, morning glory, guava, castor bean, kikuyu grass, and various other grasses and weeds.

The County of Maui is the landowner of the fire station site.

B. PROJECT NEED

The proposed project will increase service response in the Kula region of the County. Existing fire stations serving the eastern portion of the island are the Hana, Paia and Makawao stations. A major portion of the Kula region extends beyond the standard five (5) mile service radius of the Makawao station, which is the closest existing station.

The proposed fire station is centrally located within the Kula region and extends coverage throughout a significant portion of the region, from the Five Trees area to Kula Hospital. In addition, the proposed fire station will add to the service capability within East Maui.

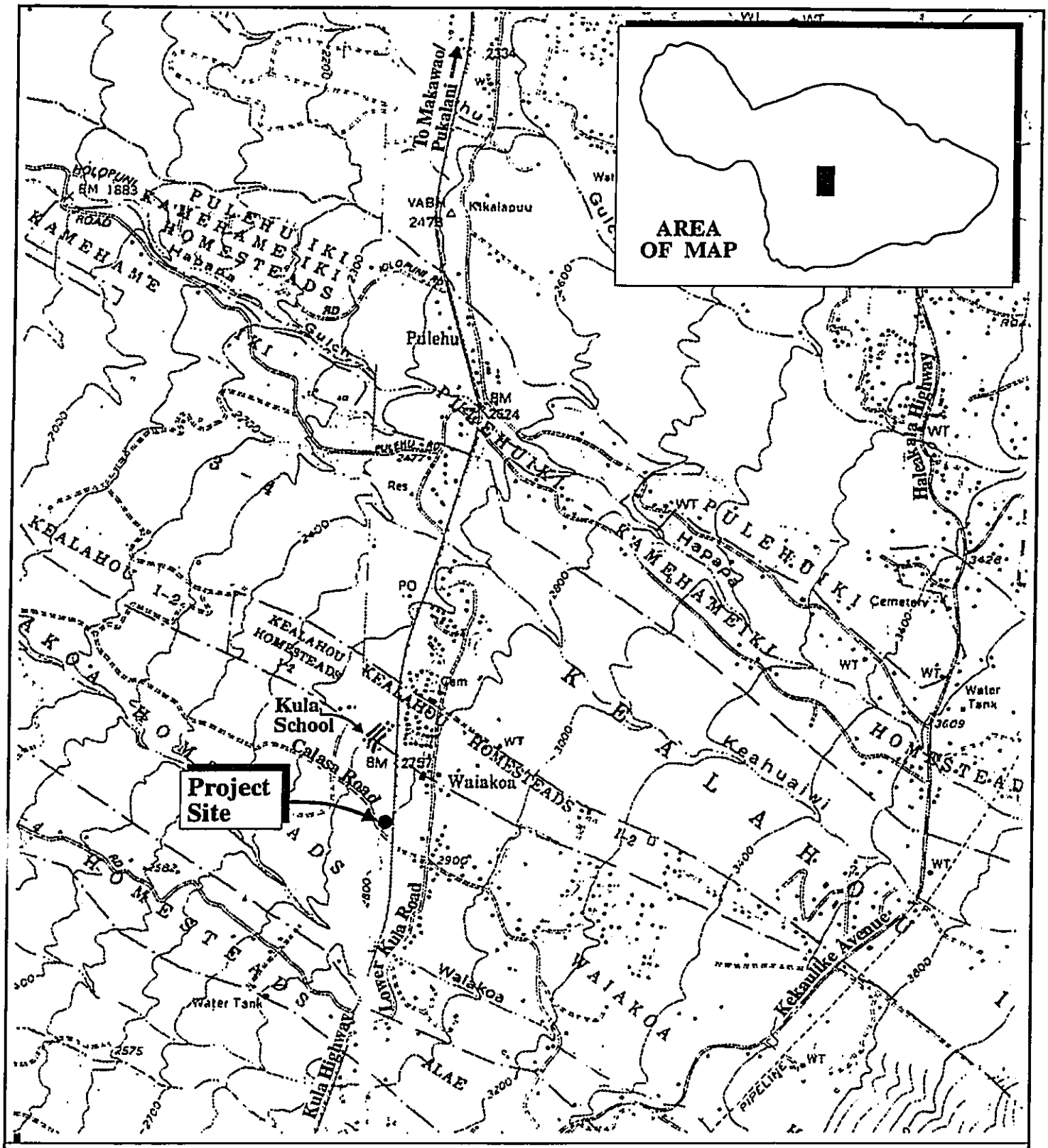


Figure 1 Kula Fire Station

Regional Location Map

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control

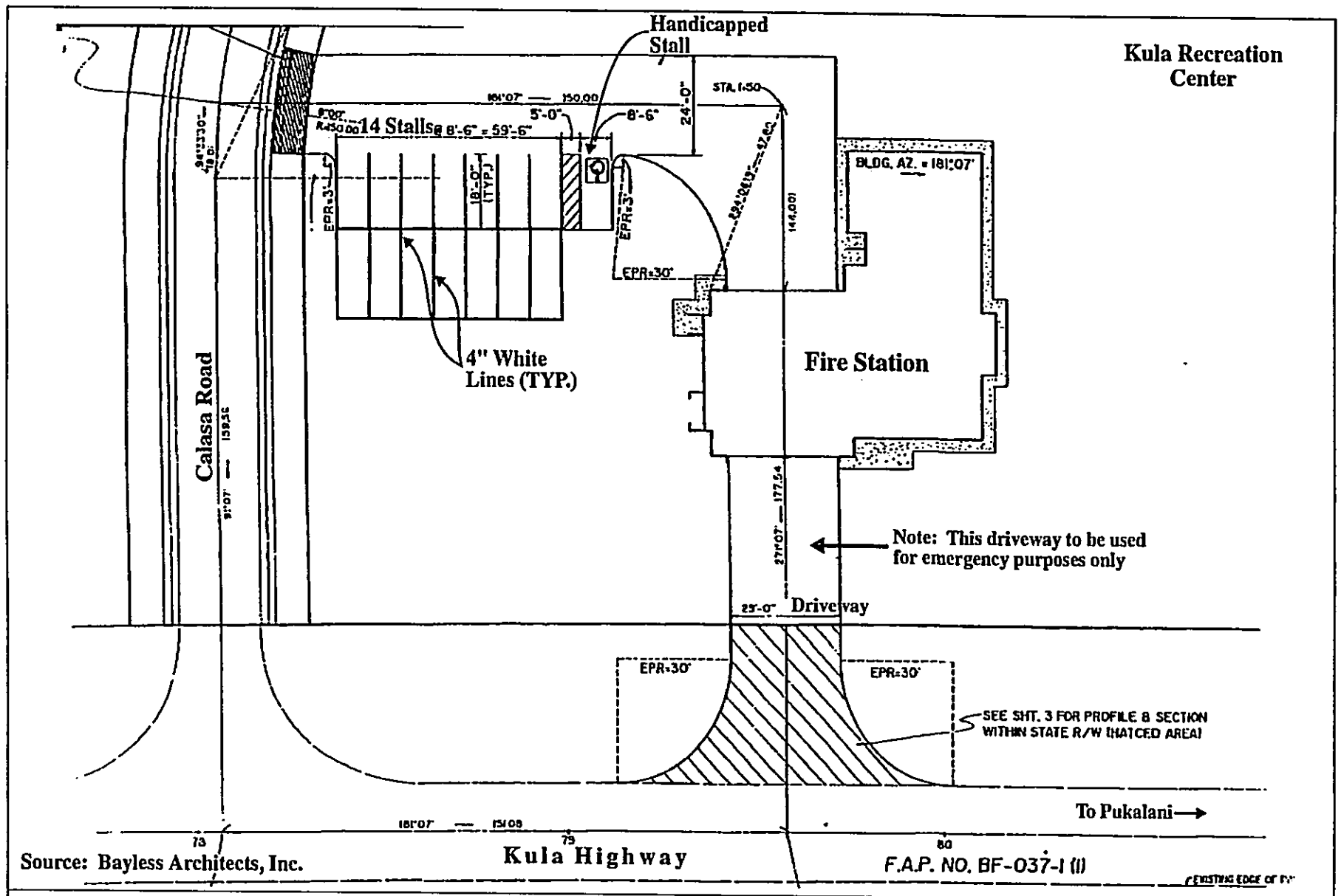
C. ***PROPOSED IMPROVEMENTS***

The proposed Kula Fire Station consists of a single story concrete masonry unit (CMU) and wood-framed structure of approximately 3,900 square feet, which will include a parking garage for two (2) fire trucks, a dining/meeting room, a kitchen, a dormitory providing space for six (6) beds, lavatories, showers, officer's quarters, office space, an emergency generator room, a fire extinguisher room, and a weight room. See Figure 2, Figure 3, Figure 4, and Figure 5. In addition to the CMU structure, there will be an above-ground fuel storage tank, a concrete pad truck turn-around and wash area (approximately 33 feet by 35 feet), an oil intercepter, emergency traffic signal lights and a septic tank. While not funded at this time, the site is also designed to accommodate emergency medical service. Such medical services would be funded by the State of Hawaii.

Access to the new station will be gained from the south side of the property via Calasa Road. A second driveway, which will provide fire trucks with direct access to Kula Highway, will be used for emergency purposes only. A total of fourteen (14) parking stalls and a handicapped stall are proposed for employee and public use.

Since the fire station is proposed on lands within the State Agricultural District which do not permit fire station use, a State Special Use Permit is required from the Maui Planning Commission.

Preliminary estimates indicate that the project will cost approximately $1.2 million. Assuming applicable permits are obtained, construction of the proposed project is scheduled to begin in the second half of 1993, with completion targeted for mid-1994.



Source: Bayless Architects, Inc.

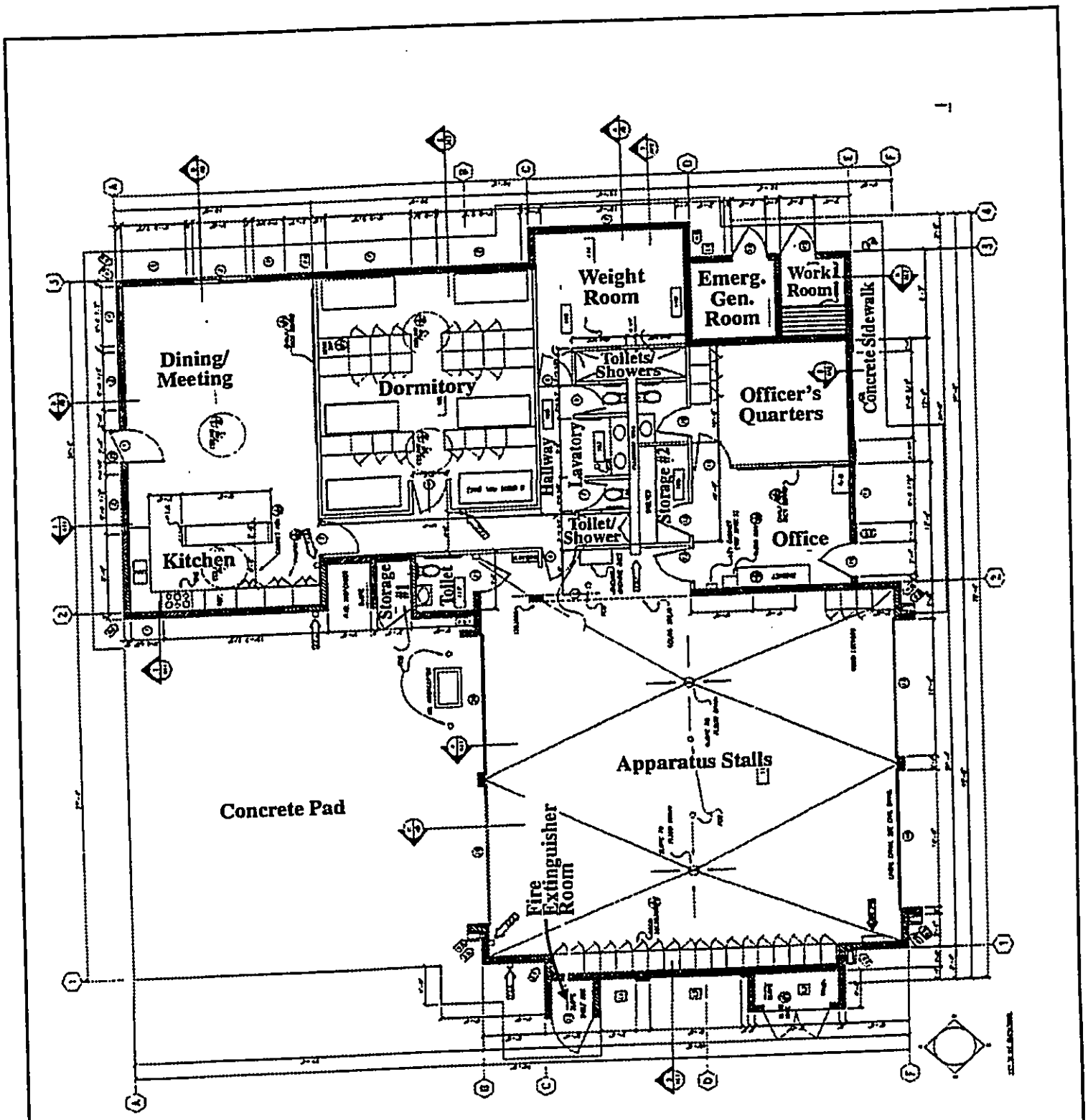
Figure 2

Kula Fire Station
Project Site Plan

NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control



Source: Bayless Architects, Inc.

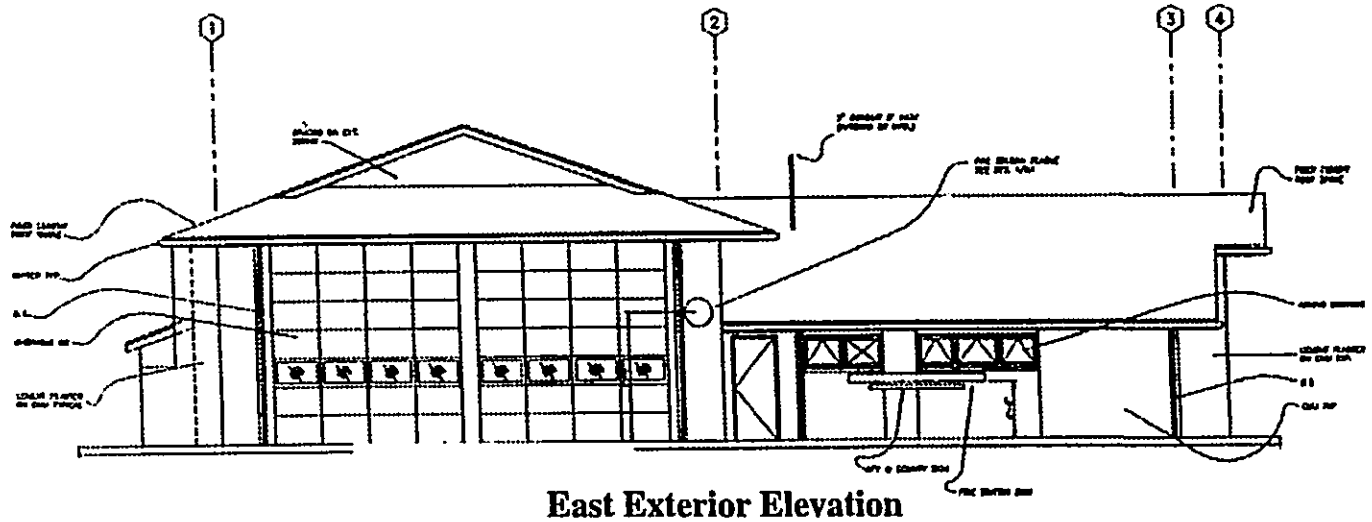
Figure 3

Kula Fire Station
Floor Plan

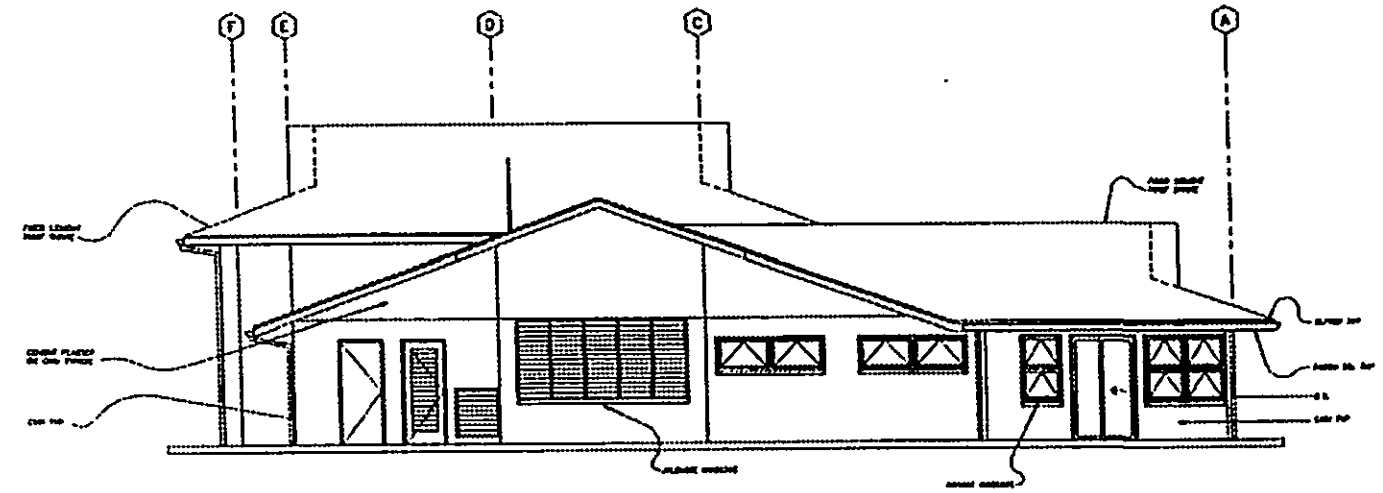
NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control



East Exterior Elevation



North Exterior Elevation

Source: Bayless Architects, Inc.

Figure 4

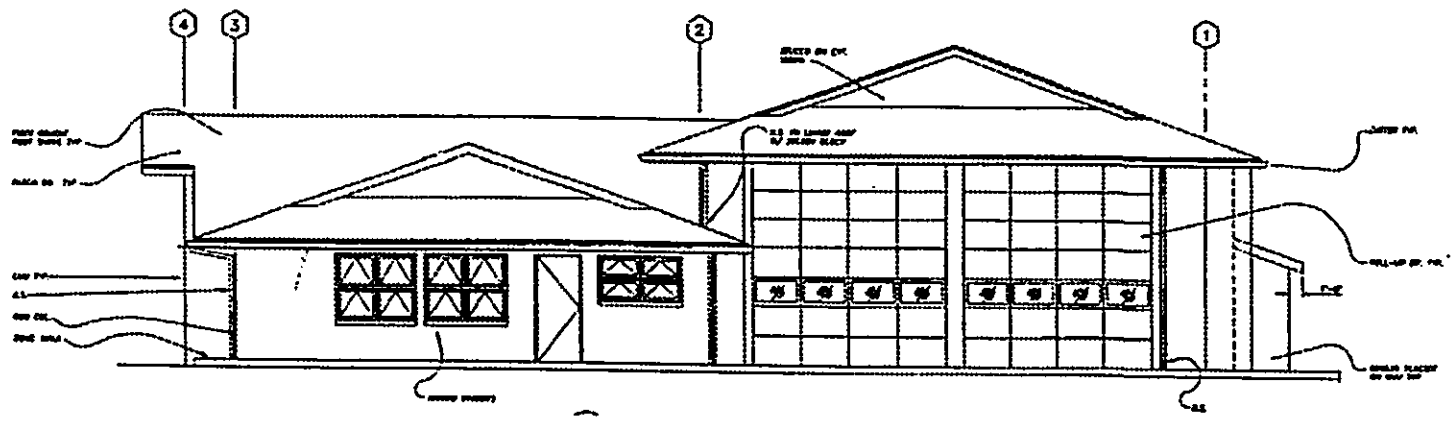
Kula Fire Station

East and North Building Elevations

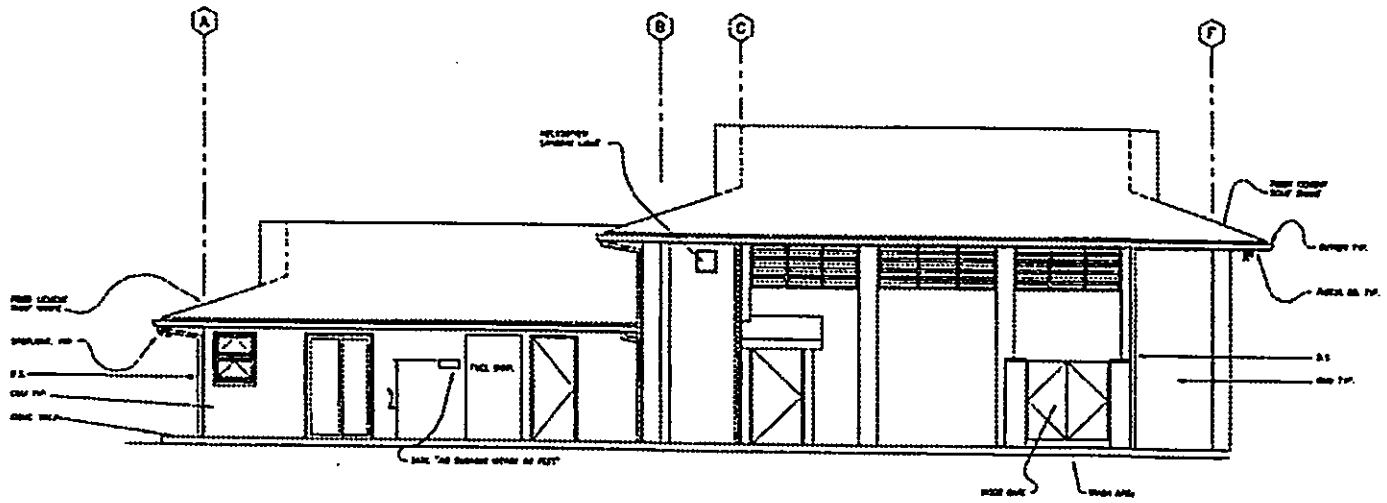
NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control



West Exterior Elevation



South Exterior Elevation

Source: Bayless Architects, Inc.

Figure 5

Kula Fire Station

West and South Building Elevations

NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control

chapter II

Description of the Existing Environment

II. DESCRIPTION OF THE EXISTING ENVIRONMENT

A. PHYSICAL SETTING

1. Surrounding Land Use

The Kula region is characterized by a rural setting interspersed with various agricultural farms. To the west of the subject property, the County of Maui is proposing to build the Kula Recreation Center on vacant lands abutting the fire station site. Further west and to the south of the project site are single-family agricultural lots. To the north of the proposed site is the Kula Elementary School. Land uses extending east and northeast (*mauka*) of the site include a service station, the Kula Holy Ghost Church, a grocery store, and single-family residential use.

2. Climate

Kula's climatic pattern is typical of most mountainous areas in Hawaii. The morning periods are generally sunny, followed by an afternoon build up of cumulus clouds which may bring intense, yet brief, showers.

Average temperatures at the project site (based on temperatures recorded at the Kula Hospital) range from lows in low-50's to highs in the mid-80's. Rainfall at the project site averages approximately 20 to 30 inches annually. Winds at the project site are generally diurnal, blowing up from the southwest (ocean) during the day and reversing in the evening, blowing down from the northeast (mountain).

3. Topography and Soil Characteristics

The subject property is located on the west facing slopes of Haleakala at an approximate elevation of 2,800 feet. The region is

typified as having moderate to steep slopes that are cut by widely spaced erosional gullies. The average slope of the site is approximately 15 percent, sloping down from the high point, along the east (mauka) side along the Kula Highway, to the low point, along the west (makai) side close to Calasa Road.

Underlying the site and surrounding lands are soils belonging to the Puu Pa-Kula- Pane Association. See Figure 6. This soil association consists of deep, gently sloping to steep, well-drained soils that have a medium textured or moderately fine textured subsoil located on intermediate and high uplands. The soil types specific to the site are the Kula cobbly loam, 12 to 20 percent slopes (KxaD), and Kamaole very stony silt loam, 3 to 15 percent slopes (KGKC). See Figure 7. Kula cobbly loam and Kamaole very stony silt loam soils are well-drained soils developed in volcanic ash. For Kula cobbly loam soils, permeability is moderately rapid, runoff is medium, and erosion hazard is moderate. For Kamaole very stony silt loam, permeability is moderate, runoff is slow to medium, and the erosion hazard is slight to moderate.

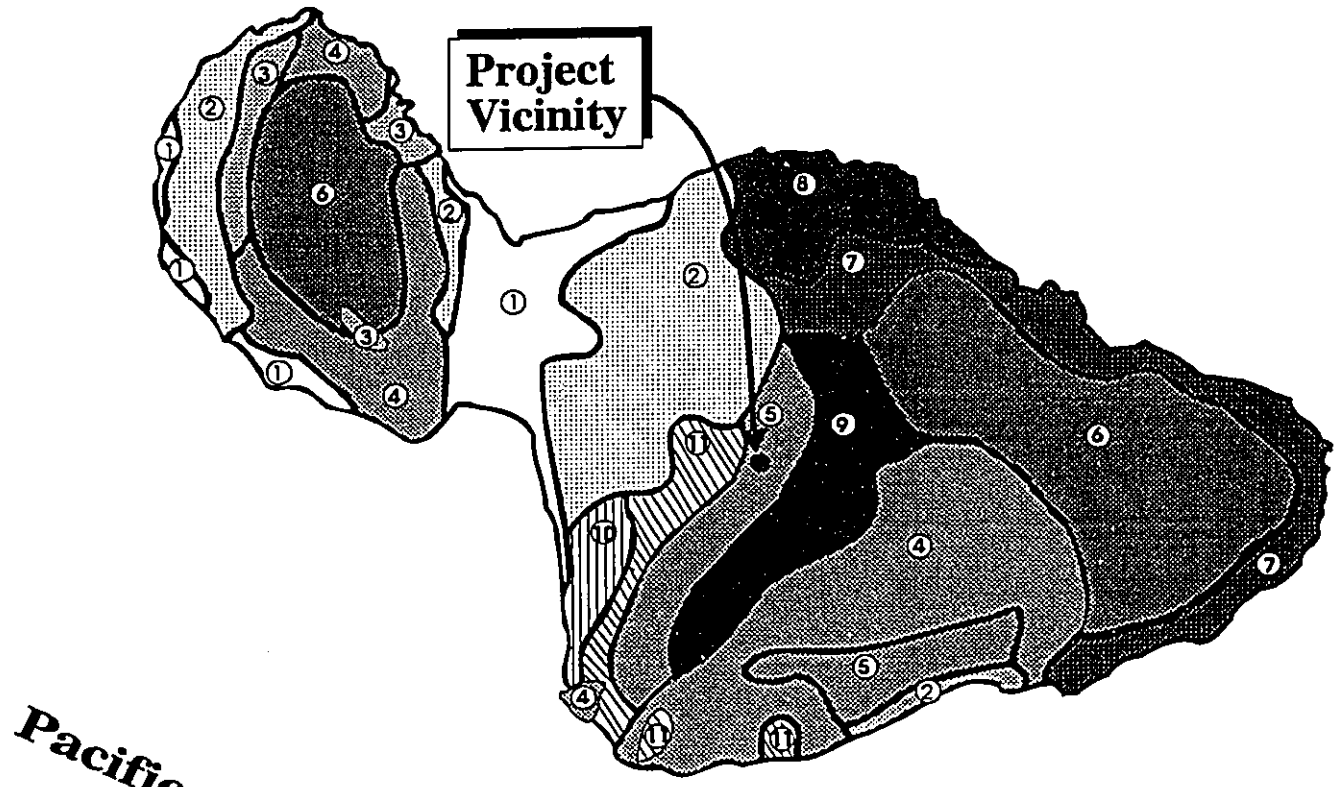
Lands underlying the project site are designated "D" lands by the University of Hawaii Land Study Bureau. The classification system rates lands on a scale of "A" to "E", reflecting land productivity characteristics. Lands designated "A" are considered to be of highest productivity, with "E" rated lands ranked lowest.

4. ***Flood Hazard***

The proposed project site is designated by the Flood Insurance Rate Map as Zone C, an area of minimal flooding.

LEGEND

- ① Pulehu-Ewa-Jaucas association
- ② Waiakoa-Keahua-Molokai association
- ③ Honolua-Olelo association
- ④ Rock land-Rough mountainous land association
- ⑤ Puu Pa-Kula-Pane association
- ⑥ Hydrandepts-Tropaquods association
- ⑦ Hana-Makaalae-Kailua association
- ⑧ Pauwela-Haiku association
- ⑨ Laumaia-Kaipoipoi-Olinda association
- ⑩ Keawakapu-Makena association
- ⑪ Kamaole-Oanapuka association



Map Source: USDA Soil Conservation Service

Figure 6

Kula Fire Station
Soil Association Map

NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control

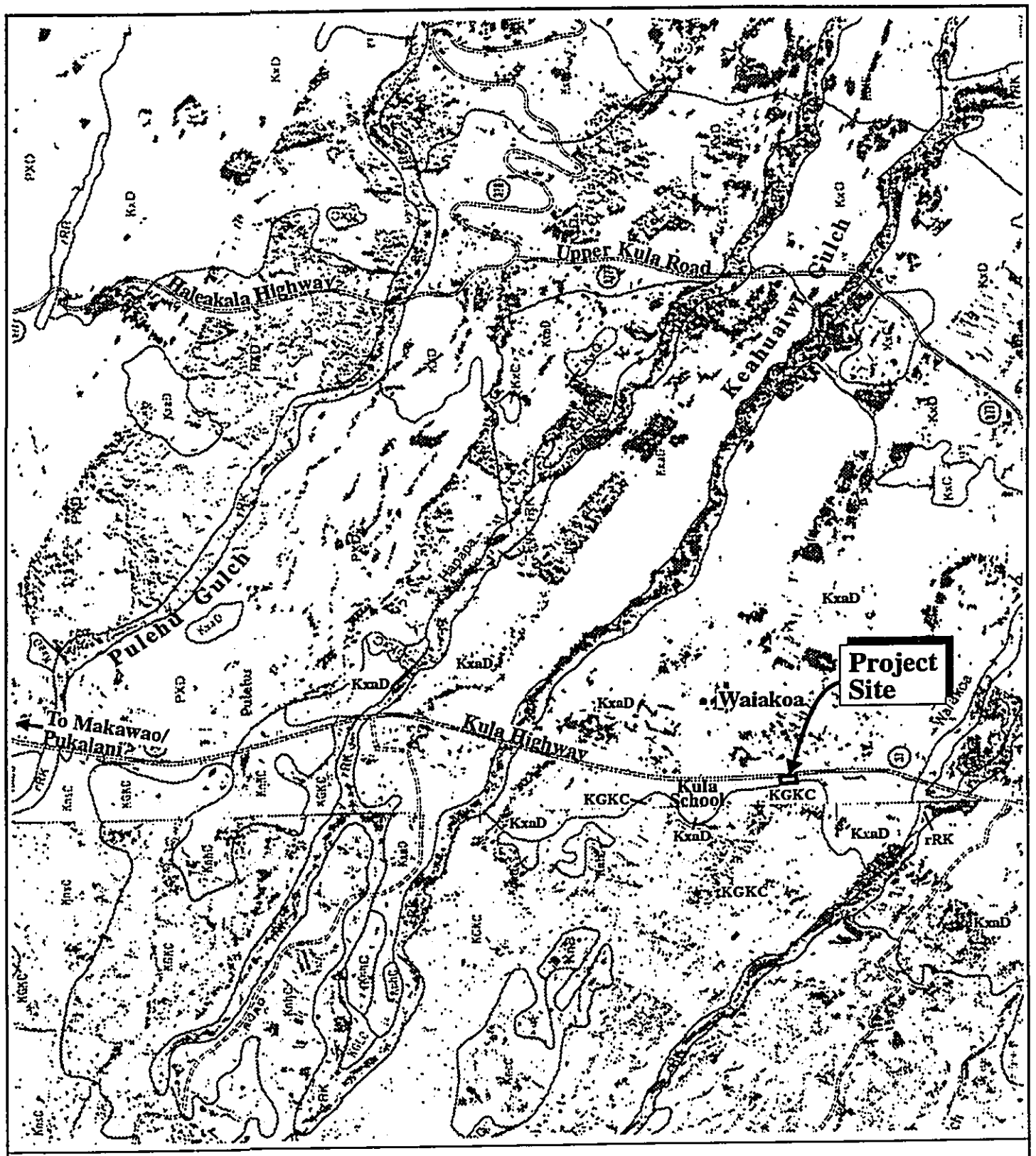


Figure 7

Kula Fire Station

Soil Classifications

1000 0 2000 4000 Feet

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control

5. *Flora and Fauna*

Surrounding the project site is the natural and open space country setting of the Kula region. The project site itself is characteristic of this natural setting of Kula. Typical flora found within the site include black wattle trees, koa haole, lantana, panini cactus, morning glory, guava, castor bean, kikuyu grass, and various grasses and weeds. There are no known rare, endangered or threatened species of plants within the project site.

The natural setting of the Kula region finds a number of fauna such as mongoose, chickens, rats, dogs, and cats. Avifauna in the region typically include mynas, doves, sparrows, and cardinals. However, the project site is located at the elevation level where the Pueo (native Hawaiian owl) is known to inhabit.

6. *Archaeological Resources*

An archaeological inventory survey was done for property being considered for the development of the Kula Recreation Center by the County of Maui (Fredericksen, 1992). This survey included an assessment of the subject site as well as the remainder of TMK 2-2-14:1 and a portion of TMK 2-2-14:2. The survey found historic, intact dry-stone retaining walls for erosion control and free-standing walls for cattle and horse corralling scattered throughout the property but not within the fire station site.

Outside of the proposed fire station site, the survey also found one probable corral which is a quadrilateral enclosed space. Three agricultural clear-piles were also located, identified and recorded outside of the fire station site.

The survey produced no surface evidence which would indicate permanent or semi-permanent ancient Hawaiian use of the land area. However, the stone features, walls, and alignments appear to be historic features and represent distinctive examples of the types of stone work associated with ranching and agricultural practices in the Kula region.

7. ***Air Quality***

There are no point sources of airborne emissions in the immediate vicinity of the project site. The air quality of the Kula region is considered good, with existing airborne pollutants attributed primarily to automobile exhaust from the region's roadways. The area is also subject to dust and equipment emissions associated with agricultural activities.

8. ***Noise Characteristics***

Surrounding noise levels in the Kula region are characteristic of its rural atmosphere and are considered relatively low. Background noise levels are attributed to natural (e.g. wind) conditions, traffic from the Kula Highway, and the operation of agricultural equipment, such as tractors, sprayers, and trucks which operate on an intermittent basis.

9. ***Visual Resources***

Situated on the slopes of Haleakala, Kula has an expansive scenic view. From the project site, looking west, Maui's central isthmus is visible, including both Kahului Bay and Maalaea Bay. The northern and southern shorelines of Maui can be seen makai (northwest and southwest, respectively) of the project area. Mauka of the site, Haleakala is clearly visible, while makai of the site, the West Maui

Mountains are visible. Further off in the distance, to the southwest, are the islands of Lanai and Kaho'olawe.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population

The population of the County of Maui has exhibited relatively strong growth over the past decade with the 1990 population estimated to be 100,374, a 41.7% increase over the 1980 population of 70,847. Growth in the County is expected to continue, with resident population projections to the years 2000 and 2010, estimated to be 123,900 and 145,200, respectively (DBED,1990).

The estimated 1990 population of the Makawao-Pukalani-Kula Community Plan region is 18,923. A projection of the region's population shows an increase to 21,584 by the year 2000. By the year 2010, population is anticipated to range between 23,318 to 24,310 (Community Resources, Inc., 1992).

2. Economy

Agriculture and tourism are vital components of Maui's economy. The cultivation of pineapple and sugar cane and the tourist industry provides for much of the island's economic stability.

The economy of Kula is heavily dependent upon agriculture. Kula's rich soil has helped the region become famous for the quality of vegetables and flowers exported to Hawaiian and international markets. Ranching of cattle and other farm animals is also an important element of Kula's economy.

C. PUBLIC SERVICES

1. Police and Fire Protection

The County of Maui's Police Department is headquartered at its Wailuku Station. The Department consists of several patrol, investigative, and administrative divisions. The Department's Upcountry Patrol covers the Makawao-Pukalani-Kula region.

Presently, fire prevention, suppression and protection for the Kula region is offered by the County's Department of Fire Control Makawao Station. The Makawao Station, which is responsible for servicing all of Upcountry Maui (Makawao, Pukalani and Kula) is located on Makawao Avenue.

2. Medical Facilities

Maui Memorial Hospital, the only major medical facility on the Island, services the Kula region. Acute, general and emergency care services are provided by the 145-bed facility which is located in Wailuku. Medical/dental offices are located in Pukalani and Makawao to serve the Upcountry region's residents.

3. Solid Waste

With the closure of the Makawao Landfill, all solid wastes generated in the Upcountry region are transported to the Central Maui Landfill in Puunene. Outside of Hana, the Central Maui Landfill is the only disposal site on the island of Maui. In 1988, solid waste was arriving at the Central Maui Landfill at a rate of 640 tons per day. The Makawao-Pukalani-Kula and Paia-Haiku regions accounted for approximately 6% of the volume entering the landfill.

4. Schools

The State of Hawaii, Department of Education, operates four (4) public schools in Upcountry Maui. They are (with 1993 projected enrollment in parenthesis): Makawao Elementary School (748), Kalama Intermediate School (1165), Pukalani Elementary School (601), and Kula Elementary School (526). High school students from Upcountry are serviced by Maui High School located in Kahului.

The region is also served by privately operated Haleakala School (grades K-8th) and Seabury Hall (grades 6th-12th).

5. Recreational Facilities

Upcountry Maui is served by numerous recreational facilities offering diverse opportunities for the region's residents. These facilities include the County's Keokea Park, Rice Park, Kula Gym, Eddie Tam Park/Gym, and the County's proposed Kula Recreation Center, which will be located adjacent (makai) to the subject property. In addition, Haleakala National Park and Polipoli State Park, located on the upper slopes of Haleakala, offer hiking, camping and sightseeing opportunities.

D. INFRASTRUCTURE

1. Roadways

Kula Highway (State Highway 37) is the main roadway serving the Kula region. At its northern end, the Kula Highway connects with the Haleakala Highway (State Highway 377), which links Upcountry Maui with the rest of the Island. Upper and Lower Kula Road, both located east (mauka) of the Kula Highway, also service the Kula region.

Access to the project site will be via the Kula Highway and Calasa Road.

2. ***Wastewater***

The Makawao-Pukalani-Kula region is not serviced by a County wastewater treatment system. A portion of Pukalani is serviced by a private wastewater treatment system, while the remainder of the Upcountry area is served by cesspools or septic tanks. The State Department of Health (DOH) has designated a critical wastewater disposal area throughout most of the Island, including the Makawao-Pukalani-Kula region. Within the indicated critical areas, septic tanks are required for wastewater disposal, while in the non-critical areas, cesspools are permitted with DOH approval. The proposed project site is located within the critical area.

3. ***Water***

The subject area is served by the Kula municipal water system. The Kula system, supplied entirely by surface water sources, consists of an upper and lower system. The project area is located within the upper system. The upper system, located at the 4,000 feet elevation, collects surface water from Haipuaena, Puohakamoa and Waikamoi Streams. The major storage reservoirs include a 10 million gallon (MG) Upper Waikamoi dam/reservoir, a lower concrete Waikamoi dam, two 15 MG open concrete Waikamoi tanks, and a 3 MG steel Olinda tank. The water treatment plant, located in Olinda, has a capacity of 1.7 million gallons per day (MGD).

4. ***Drainage***

There are no major drainageways in the project site. However, the adjacent Kula Recreation Center project will be installing an on-site

drainage network. The on-site system will be diverted by underground culverts along Calasa Road to an existing swale on the west side of Calasa Road. Approximately 1.8 cfs currently sheet flows from the project site to the Kula Recreation Center site. See Appendix A.

5. Electrical

Maui Electric Company, which has utility poles and over head lines located north of the proposed site, will provide electrical service to the site.

chapter III

Potential Impacts and Mitigation Measures

III. POTENTIAL IMPACTS AND MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Surrounding Uses

The project site is located in the midst of a rural setting interspersed with various agricultural farms. The proposed project is not anticipated to have any adverse effects on surrounding land uses.

2. Topography/Landform

The proposed project will involve the clearing, grubbing and grading of approximately one (1) acre of land that is presently undeveloped. Excavation and filling will be required for the construction of the new facility. In general, however, finished contours will follow existing grades to minimize earthwork costs and maintain existing drainage patterns which tie into the immediate surrounding lands. Therefore, the project is not expected to result in any negative impacts to the topography or landform.

3. Flora and Fauna

There are no known rare, endangered or threatened species of flora within or surrounding the project. As such, the removal of existing vegetation is not considered an adverse impact to this component of the environment.

The Pueo, the native Hawaiian owl which is on the State's endangered species list, has been observed in the Kula region. Inasmuch as the Pueo's habitat spans over a substantial portion of Kula, the number of trees which will be removed from the project site that are associated with the Pueo's habitat is considered to be relatively insignificant. It is noted that landscaping for the proposed fire station will include the planting of trees, shrubs and ground

covering indigenous to the Upcountry region. The proposed project is not expected to have any significant adverse impacts to the area's fauna and avifauna population.

4. ***Archaeological Resources***

The archaeological inventory survey (Xamanek Researches, revised July, 1992) that was prepared for the subject parcel of land produced no surface evidence or indications of former ancient Hawaiian use of the proposed project site. It is anticipated that the proposed project will have "no effect" on significant historic sites.

5. ***Air Quality***

Air quality in the immediate vicinity of the project is anticipated to be affected by short-term construction activities. Earthwork operations, for example, will result in fugitive dust being generated. However, dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind-blown emissions.

On a long-term basis, the project will not generate adverse air quality conditions. The Kula Fire Station facility operations will not result in the release of noxious gases, particulates or odors.

6. ***Noise Quality***

As was the case with air quality, ambient noise conditions will be impacted by construction activities. Construction equipment, such as bull dozers, front end loaders and materials-carrying trucks, would be the dominant source of noise during the site construction period. Construction is anticipated to be limited to daylight hours only.

Construction noise is not considered to have a significant adverse impact upon the vicinity.

On a long-term basis, fire alarms and fire truck sirens normally associated with fire department activities will generate noise for brief periods. However, these sirens and alarms are intended for immediate responses to emergency situations, and are necessary from a public safety standpoint. The proposed project is not anticipated to generate adverse noise conditions for sustained periods of time.

7. *Visual Resources*

The proposed project is not part of a scenic corridor and will not have an adverse impact upon the visual character of the surrounding area.

B. *SOCIO-ECONOMIC ENVIRONMENT*

1. *Population and Local Economy*

On a short-term basis, the project will support construction and construction-related employment.

On a long-term basis, the project will aid the long-term economic vitality of the region by ensuring the integrity of fire protection services for its residents and businesses. Additionally, improved fire protection resulting from the proposed project will promote the public health, safety and welfare of the Kula region.

2. *Public Services*

The Kula region is presently without a fire station. The standard for fire protection service is a five-mile radius from a station. By way of

illustration, the five-mile radius from the Makawao Fire Station extends mauka along Kula Highway but ends before Kula Elementary School, thereby leaving a significant portion of the region with substandard service. With the Kula station, the five-mile standard for coverage extends from the Five Trees area to Kula Hospital. In terms of impacts to fire protection, the project is essential to the safety and well being of Kula's residents and businesses. The station's central location and close proximity to Kula's main arterial roadway improves the response times to house fires and other life threatening situations.

Although the fire station site would be occupying one acre of the 10.3 acre Kula Recreational Center site, the existing sloping nature of the site makes it difficult to utilize the entire site for active recreation purposes. As originally proposed, the current plans for the recreation center still include two multi-purpose ballfields, two picnic sites with four tables/benches at each site, one fitness area with exercise apparatus, and paved pathways for passive recreation.

The Kula Fire Station will require the employment of 15 full time firefighters. At this staffing level, the employment related impacts of the project upon public service needs, such as police, medical facilities, and schools are not considered significant.

Although not part of the current fire station project due to timing and funding limitations, emergency medical services are being considered for future implementation. This would provide for a significant increase in the level of ambulance service in the Upcountry region.

C. INFRASTRUCTURE

1. Roadways

Emergency access for firefighting vehicles will be directly to Kula Highway. Emergency traffic signal lights are proposed to be constructed at the emergency access driveway's intersection with Kula Highway. The lights are needed from a traffic safety standpoint and would be utilized only during emergency situations. Implementation of the signal lights will be coordinated with the Department of Transportation.

Normal vehicular access to the project site will be via Calasa Road. Any realignment of Calasa Road to be done in conjunction with the Kula Recreation Center Project will be coordinated with the County Department of Parks and Recreation and State Department of Transportation.

Five (5) employees are projected to be stationed at the fire station per 24-hour shift. There are three (3) work shifts with a total of fifteen (15) employees assigned to the Kula Fire Station. With the relatively low number of people generated by the proposed use, the proposed project's impacts upon the public roadway system are not expected to be significant. Currently, all traffic movements at the intersection of Kula Highway and Calasa Road experience little or no delay during both the morning and afternoon peak hours. See Table 1.

2. Water

The proposed project is anticipated to generate an average daily water demand of 600 gallons per day. Moreover, the project would incorporate Xeriscape principles including the use of low water

Table 1

EXISTING PEAK HOUR TRAFFIC VOLUME AT KULA HIGHWAY-CALASA ROAD INTERSECTION (Vehicles Per Hour)		
	A.M.	P.M.
Kula Highway South Bound Right Turn	5	5
Kula Highway North Bound Left Turn	0	5
Kula Highway South Bound	175	275
Kula Highway North Bound	330	185
Calasa Road East Bound Right Turn	5	5
Calasa Road East Bound Left Turn	5	5

Source: Pacific Planning & Engineering, Inc., 1992

demand plants which minimizes the impact of water usage for landscape irrigation. Appropriate water system improvements will also be constructed to address fire flow requirements. The project is not expected to have a significant impact upon the water source, storage and transmission system.

3. ***Drainage***

Approximately 2.2 cfs of surface runoff will be generated from the project site after development. This represents an increase of .4 cfs due to the proposed development. The proposed drainage plan will allow surface runoff to be intercepted and disposed by the Kula Recreation Center drainage system.

Existing drainage patterns will be maintained. Sedimentation hazard to coastal waters and downstream properties is minimal. The soil loss per unit area and severity rating computed for the proposed development are well within tolerable limits. According to the Drainage and Soil Erosion Control Report for the project, the proposed project will not have an adverse effect on the adjoining downstream properties. See Appendix A.

4. ***Wastewater***

The proposed project is anticipated to generate an average daily flow of approximately 400 gallons per day of wastewater. The site is not serviced by County wastewater treatment system and is considered a critical wastewater disposal area. Thus, septic tanks will be utilized for wastewater disposal.

5. ***Other Infrastructure Systems***

The proposed project will not have any significant impact on solid waste or electrical systems. With a building floor area totalling 3,900 square feet, the impacts upon the infrastructure systems are expected to be negligible.

Chapter IV

Relationship to Government Plans, Policies and Controls

IV. RELATIONSHIP TO GOVERNMENT PLANS, POLICIES AND CONTROLS

A. STATE LAND USE DISTRICTS

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes the four major land use districts in which all lands in the State are placed. These districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The subject property is located within the "Agricultural" district. See Figure 8.

Fire stations are not a permitted use within the "Agricultural" district and, as such, the County of Maui Department of Fire Control will be required to obtain a Special Use Permit pursuant to Section 15-15-95 of the Hawaii Land Use Commission Rules. The LUC Rules provide that certain "unusual and reasonable" uses may be permitted within the "Agricultural" district. The proposed project is consistent with the guidelines for determining an "unusual and reasonable" use as follows:

Guideline: The use shall not be contrary to the objectives sought to be accomplished by Chapters 205 and 205A, HRS,and the rules of the Commission.

Response: The general intent of the State Land Use law is "to preserve, protect and encourage the development of land in the State for those uses to which they are best suited in the interest of the public health and welfare of the State of Hawaii". As a facility deemed essential to maintaining the public health, safety, and welfare of the residents of Kula, the positioning of the proposed project is suitable in terms of its relationship to the surrounding environment.

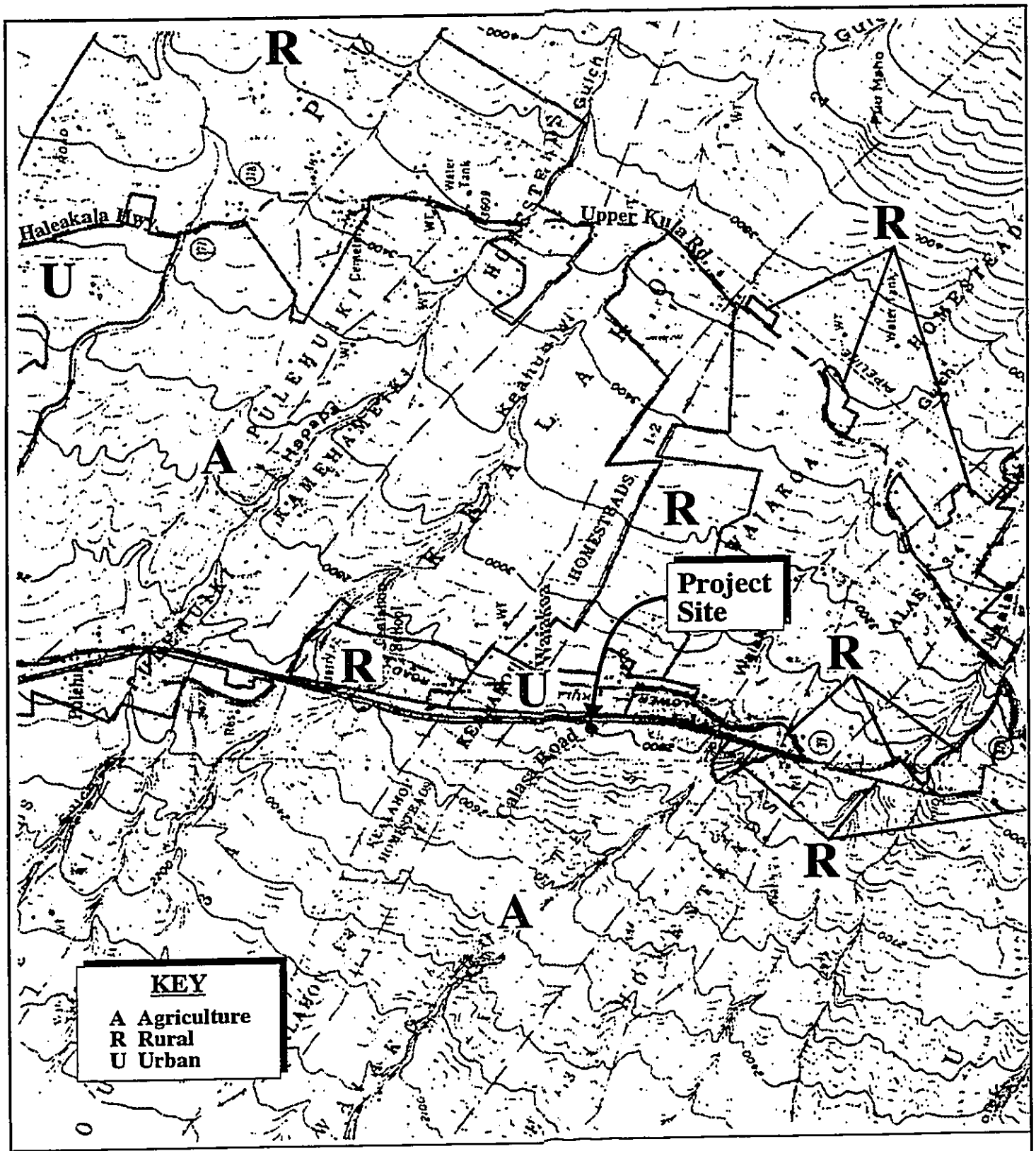


Figure 8 Kula Fire Station

State Land Use District Designations

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control

Guideline: The desired use would not adversely affect surrounding property.

Response: With the exception of Kula Elementary School, located north of the site, the lands surrounding the proposed project are either single-family agricultural lots or vacant pastoral lands. The proposed project will not impact the daily operations of the school nor the agricultural or pastoral uses.

Guideline: The use would not unreasonably burden public agencies to provide roads and streets, sewers, water, drainage and school improvements, and police and fire protection.

Response: Situated in Upcountry Maui, Kula currently lacks adequate fire protection. The proposed project will provide necessary fire protection services for the region. The new fire station is not anticipated to adversely impact the public services and infrastructure in the vicinity of the project site.

Guideline: Unusual conditions, trends, and needs have arisen since the district boundaries and rules were established.

Response: Kula is primarily a farming and rural community. However, a gradual increase in growth and change in settlement patterns over time have generated a necessity for improved fire protection. The proposed project will address the lack of adequate fire protection in Kula.

Guideline: The land upon which the proposed use is sought is unsuited for the uses permitted within the district.

Response: The proposed site for the Kula Fire Station is classified as "D" lands by the University of Hawaii Land Study Bureau. This designation indicates that the project site possesses a low agricultural productivity value. The use of the site for a fire station will not displace nor impact agricultural activity important to the Island's economy.

B. *GENERAL PLAN OF THE COUNTY OF MAUI*

The General Plan of the County of Maui (1990) update provides long term goals, objectives and policies directed toward the betterment of living conditions in the county. Addressed are social, environmental, and economic issues which influence both the quantity and quality of growth in Maui County. The following General Plan objectives and policies are addressed by the proposed project:

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.

Policy:

- Reduce fire losses by improving and maintaining firefighting apparatus.
- Locate fire, police and life saving stations in convenient areas.
- Improve personal and community safety programs.

C. *MAKAWAO-PUKALANI-KULA COMMUNITY PLAN*

Nine (9) community plan regions have been established in Maui County. Each region's growth and development is guided by a Community Plan, which contain objectives and policies drafted in accordance with the County General Plan. The purpose of the Community Plan is to outline a relatively detailed agenda for carrying out these objectives.

The proposed project is located within the Makawao-Pukalani-Kula Community Plan region. The proposed project would facilitate implementation of the Makawao-Pukalani-Kula Community Plan by addressing the objective to "improve health and public safety services by establishing a fire station in the Kula area".

Maps are included within each Community Plan in order to capture spatially the intent of the plan. The project site is designated "Agriculture" by the Makawao-Pukalani-Kula Community Plan Land Use Map. See Figure 9.

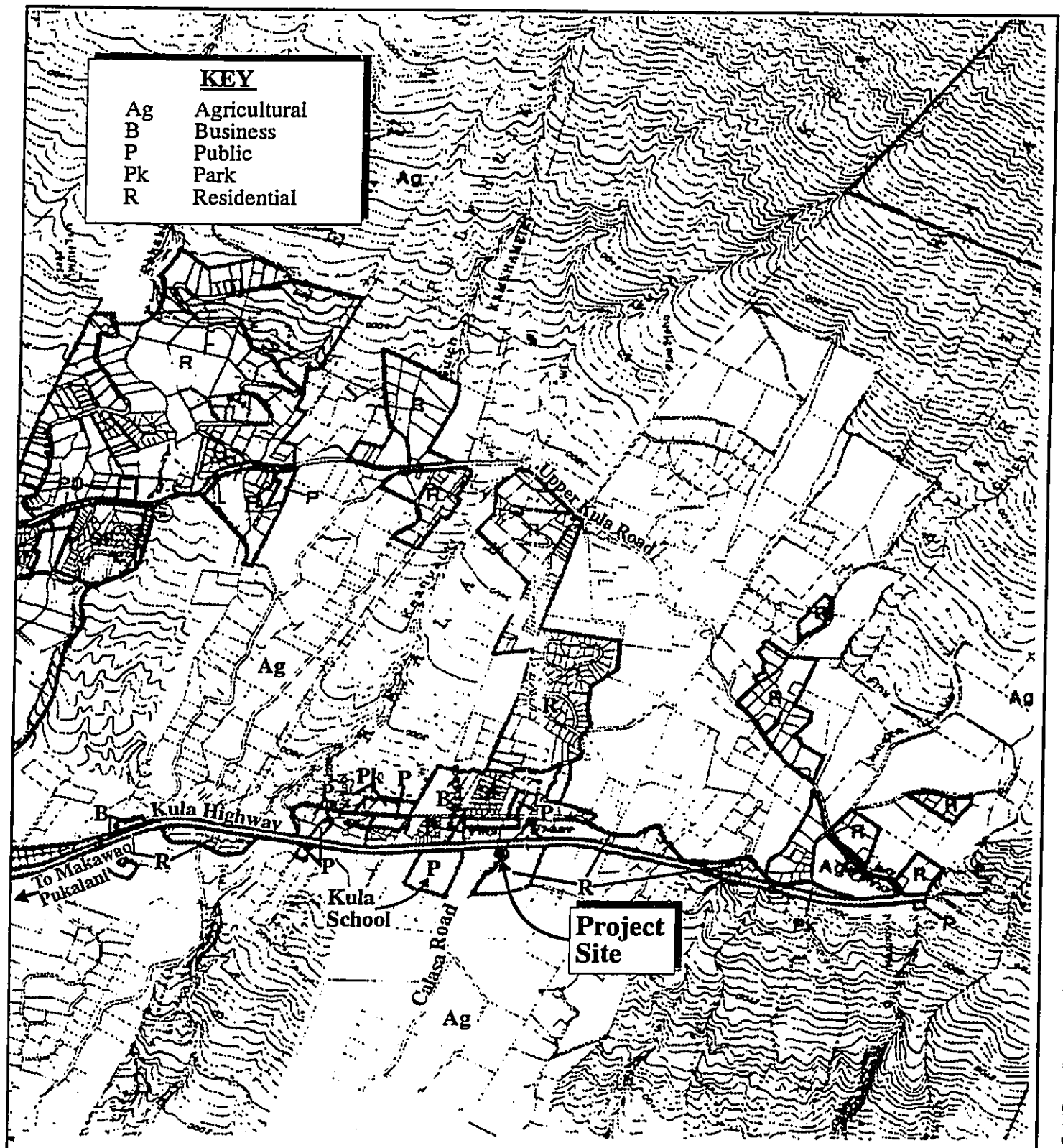


Figure 9 Kula Fire Station

Community Plan Land Use Designations

NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.

Prepared for: County of Maui, Dept. of Fire Control

Chapter V

Findings and Conclusions

V. FINDINGS AND CONCLUSIONS

The proposed Kula Fire Station will increase service response in the Kula region of the County. A significant portion of the region extends beyond the standard five (5) mile service radius of the Makawao Fire Station, which is the closest existing station. The proposed station will extend coverage throughout a significant portion of the Kula region, from the Five Trees area to Kula Hospital, and adds to the service capability within East Maui. Improved fire protection resulting from the proposed project will promote the health, safety and welfare of the region.

The proposed project will involve earthwork and building construction activities. In the short term, these activities may generate temporary nuisances normally associated with construction activities. However, dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind blown emissions. All construction activities are anticipated to be limited to normal daylight working hours. Impacts generated from construction activities are not considered adverse.

From a long-term perspective, the proposed project is not anticipated to result in adverse environmental impacts. Although the existing stone features, walls and alignments appear to be associated with historic ranching and agricultural practices, these are located outside of the site. The proposed project is anticipated to have "no effect" on significant historic sites. Fire alarms and fire truck sirens normally associated with emergency activities may be significant noise generators for brief but intense periods of time. However, adverse noise conditions are not anticipated for sustained periods of time.

Although the fire station site would be occupying one acre of the 10.3 acre Kula Recreation Center site, the existing sloping nature of the site makes it difficult to utilize the entire site for active recreation purposes. Plans for the recreation center still include two multi-purpose ballfields, two picnic sites with four tables/benches

at each site, one fitness area with exercise apparatus, and paved pathways for passive recreation.

With five (5) employees projected to be stationed at the fire station per 24-hour shift, the proposed project is not anticipated to have an adverse effect upon public service needs, such as police, medical facilities and schools. In addition, the impact upon roadways, water, wastewater, drainage and other infrastructure systems are not considered significant.

In light of the foregoing findings, it is concluded that the proposed action will not result in any significant impacts.

Chapter VI

Agencies Contacted in the Preparation of the Draft Environmental Assessment and Responses Received

VI. AGENCIES CONTACTED IN THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT AND RESPONSES RECEIVED

The following agencies were contacted during the preparation of the Environmental Assessment:

1. U.S. Army Corps of Engineers
   Pacific Ocean Division
   Building 230
   Honolulu, Hawaii 96858

2. Tom Arisumi, Division Chief
   Department of Health
   Environmental Management Division
   Five Waterfront Plaza, #250
   500 Ala Moana Boulevard
   Honolulu, Hawaii 96813

3. Robert Siarot
   Maui District Engineer
   Department of Transportation
   650 Palapala Drive
   Kahului, Hawaii 96732

4. Department of Land and Natural Resources
   State Historic Preservation District
   1151 Punchbowl Street
   Honolulu, Hawaii 96813

5. State of Hawaii
   Department of Agriculture
   635 Mua Street
   Kahului, Hawaii 96732

6. Brian Miskae, Director
   Department of Planning
   250 South High Street
   Wailuku, Hawaii 96793

7. David Craddick, Director
   Department of Water Supply
   200 South High Street
   Wailuku, Hawaii 96793

8. Charmaine Tavares, Director
   Department of Parks and Recreation
   200 South High Street
   Wailuku, Hawaii 96793

9. Howard Tagomori, Chief
   Police Department
   55 Mahalani Street
   Wailuku, Hawaii 96793

10. Lloyd Lee, Division Chief
    Department of Public Works
    Division of Engineering
    200 South High Street
    Wailuku, Hawaii 96793

11. Eassie Miller
    Department of Public Works
    Wastewater Reclamation Division
    200 South High Street
    Wailuku, Hawaii 96793

12. David Wissmar
Department of Public Works
Solid Waste Division
200 South High Street
Wailuku, Hawaii 96793

13. Mark Andrews, President
Kula Community Association
RR2, Box 295
Kula, Hawaii 96790

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

January 28, 1993

Mr. Michael T. Munekiyo, A.I.C.P.
Michael T. Munekiyo Consulting, Inc.
1823 Wells Street, Suite 3
Wailuku, HI 96793

SUBJECT: PROPOSED CONSTRUCTION OF NEW KULA FIRE STATION

Dear Mr. Munekiyo:

Thank you for seeking early input from our division on the subject project. Our comments at this stage are:

1. Calasa Road may undergo a realignment with the development of a nearby park. Please check with the Department of Parks and Recreation for more details and coordination of improvements.

2. We will require a site plan and/or construction plan showing all road and drainage improvements. You will need a traffic study, drainage report and soil erosion control plan to supplement the plans for our review and approval.

3. State Department of Transportation, Highways Division will review improvements to Kula Highway.

If you have any questions regarding this matter, please call Joseph Krueger of our Engineering Division at 243-7745.

Very truly yours,

George N. Kaya

GEORGE N. KAYA
Director of Public Works

LL/JK:dh(ED93-82)
KulaFire.sta

xc: Fire Department
LUCA
Jeff Chang

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

January 28, 1993

REPLY TO
ATTENTION OF:

Planning Division

Mr. Michael T. Munekiyo, AICP
Michael T. Munekiyo Consulting, Inc.
1823 Wells Street, Suite 3
Wailuku, Maui, Hawaii 96793

Dear Mr. Munekiyo:

Thank you for the opportunity to review and comment on the Proposed Construction of the New Kula Fire Station, Kula, Maui (Tax Map Key 2-2-14: por. 1). The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act; the Rivers and Harbors Act of 1899; and the Marine Protection, Research and Sanctuaries Act.

a. It appears there will be no work in waters of the U.S.; therefore, a DA permit will not be required.

b. According to the Federal Emergency Management Agency's Map Index for Maui County, the project site is located in Zone C (no panel printed; areas of minimal flooding).

Sincerely,

Thomas Ushijima, P.E.
Acting Director
of Engineering

POLICE DEPARTMENT

COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96793
AREA CODE (808) 244-6400
FAX NO. (808) 244-6411

HOWARD H. TAGOMORI
CHIEF OF POLICE

STANLEY T. TADAKI
DEPUTY CHIEF OF POLICE

OUR REFERENCE

YOUR REFERENCE GN:at

January 21, 1993

Mr. Michael T. Munekiyo, A.I.C.P.
Michael T. Munekiyo Consulting, Inc.
1823 Wells Street, Suite 3
Wailuku, Hawaii 96793

Dear Mr. Munekiyo:

SUBJECT: New Kula Fire Station

Thank you for informing us of this proposed project.

We have no comment to make at this time.

Very truly yours,

HOWARD H. TAGOMORI
Chief of Police

JAN 2 5 1993

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

January 20, 1993

Mr. Michael T. Munekiyo
Michael T. Munekiyo Consulting, Inc.
1823 Wells St., Suite 3
Wailuku, HI 96793

Dear Mr. Munekiyo:

SUBJECT: **PROPOSED CONSTRUCTION OF NEW KULA FIRE STATION**

As the County has no sewer system in this area, we have no comments on the project. The State Department of Health, Wastewater Branch should be contacted as they have jurisdiction over wastewater disposal in the Kula area.

Should you have any questions or wish to discuss this matter further, please feel free to call Dave Taylor at 243-7428.

Sincerely,

Eassie Miller

Eassie Miller, Chief
Wastewater Reclamation Division

DT:ca(CT93075)

KULA COMMUNITY ASSOCIATION

Mark J. Andrews
RR 2 Box 295
Kula, Hawaii 96790
Phone: (808) 878-6679

January 19, 1993

Michael T. Munekiyo, A.I.C.P.
1823 Wells Street, Suite 3
Wailuku, Hawaii 96793

Dear Mr. Munekiyo:

I thank you for this opportunity to comment on the proposed construction of the New Kula Fire Station.

Please understand that I am writing this letter although it's content has not been approved by the Kula Community Association (KCA) board of directors or general membership. The lack of approval is due to the time constraint of your February 5, 1993 comment deadline. Our next board meeting is scheduled for February 4, 1993 and our next general membership meeting for February 18, 1993.

If warranted, I will direct any additional comments from the KCA board members to you after our February 4th meeting. Also, we have tentative plans for a representative from the County of Maui to attend our February 18th meeting to discuss the planned park and fire station. If there are any additional comments at this time I will send them to you.

The KCA fully supports the construction of a new fire station in the Kula area. Our present fire protection is inadequate and our ability to obtain home owners insurance is in question, partly due to a lack of a fire station. The KCA originally proposed that a new fire station be built a the highest point of Kekaulike Highway. Since that time we were informed that the proposed site was preferable to the County.

At this time I am aware of two (2) major concerns the KCA has regarding this project.

First of all, the primary purpose for which the subject property was purchased was to provide a park for the Kula area and to provide for a playground for Kula School if future school expansion would encroach on the existing school playground. It was with this understanding that the Kula community lobbied the Hawaii State Legislature for acquisition funds, the Legislature appropriated such funds, the governor released such funds to the County of Maui and the property was purchased by the County. The proposed park was to include, at a minimum, sufficient area and the landscaping of such to accommodate two (2) little league base ball fields and soccer fields.

Although the KCA has repeatedly asked for assurance from the County that the proposed fire station would not distract from the primary purpose of the subject property's acquisition we have of this date received no such assurance.

The support the KCA gives to the construction of a new fire station at the proposed site is subject to the County being able to build a park which accommodates the uses for which the property was originally acquired.

Secondly, the KCA was under the impression that the new fire station would be built to accommodate the Kula Emergency Medical Services (ambulance). Your project summary did not describe the building as accommodating such services. The KCA request that the proposed new Kula fire station have sufficient building space as to accommodate the Kula Emergency Medical Services.

Other than the two concerns mentioned the KCA, at this time, is unaware of other concerns that may distract from our support of the project.

Thank you for this opportunity to comment on this project. If further comments from our board or membership arise I will forward them to you.

Sincerely yours,

Mark J. Andrews
President

cc: Richard Haake, Managing Director,
County of Maui

Chapter VII

Letters Received After Filing of Draft Environmental Assessment and Proposing Agency Responses

LINDA CROCKETT LINGLE
MAYOR

COUNTY OF MAUI
DEPARTMENT OF FIRE CONTROL

200 DAIRY ROAD
KAHULUI, MAUI, HAWAII 96732
(808) 243-7561

RONALD P. DAVIS
CHIEF

RONALD DeMELLO
DEPUTY CHIEF

March 22, 1993

John C. Lewin, M.D., Director
State of Hawaii - Dept. of Health
P.O. Box 3378
Honolulu, HI 96801

Dear Dr. Lewin:

SUBJECT: KULA FIRE STATION TMK: 2-2-14:por. 1
KULA, MAUI, HAWAII

Thank you for your letter of March 3, 1993 pertaining to the subject project. Our responses to your comments are as follows:

1. We acknowledge that the subject site is located within a critical wastewater disposal area. It is anticipated that a septic tank would be used to handle the wastewater needs of the fire station.

2. Noise impacts from stationary equipment are anticipated to be minimal. There is an on-site generator which would be used only for emergency purposes. Also, the heating, ventilation and air conditioning (HVAC) system is intended to be used only during periods of extreme temperature. With the cool and equable climate in the region, the use of air conditioning and any resulting noise impact is likely to be relatively infrequent. It is anticipated that construction activities would be restricted to daylight hours which aids in limiting its impacts on the surrounding area.

We appreciate your input and look forward to working with you and your staff in the permit process.

Very truly yours,

RONALD P. DAVIS
Fire Chief

CC: Daren Suzuki,
Planning Department

LINDA CROCKETT LINGLE
MAYOR

RONALD P. DAVIS
CHIEF

RONALD DeMELLO
DEPUTY CHIEF

COUNTY OF MAUI
DEPARTMENT OF FIRE CONTROL

200 DAIRY ROAD
KAHULUI, MAUI, HAWAII 96732
(808) 243-7561

March 22, 1993

Mr. Robert O. Siarot
Maui District Engineer
State of Hawaii - DOT
650 Palapala Drive
Kahului, HI 96732

ATTENTION: Mr. Fred Cajigal

Dear Mr. Siarot:

SUBJECT: KULA FIRE STATION TMK: 2-2-14:Por. 1
KULA, MAUI, HAWAII

Thank you for your transmittal memorandum of February 22, 1993 pertaining to the subject project. Our responses to your comments are as follows:

1. The request for access has been granted to the County of Maui. The legal documents are in the process of being filed.

2. Regarding drainage, we have enclosed a copy of the drainage report for the subject project, which was not included in the Draft EA. The drainage report notes that the Kula Fire Station is expected to generate an additional 0.4 cfs of onsite additional runoff. The report concludes that the Kula Recreation Center drainage system is capable of handling the increase in flow.

3. Regarding the emergency traffic signal light at Kula Highway, we will be coordinating implementation of the light with your department. Our plans presently do not include an electronically operated gate at the Kula Highway emergency access. It is not likely that other vehicles will be using this access since the driveway does not extend through the property. Adequate parking for employee and visitor use is also proposed at the Calasa Road access. The use of the Kula Highway driveway for emergency purposes only, would be enforced by the officer in charge of the fire station. Regarding the realignment of Calasa Road, it is noted that this will be coordinated with the DOT.

We appreciate your input and look forward to working with you and your staff in the permit process.

Very truly yours,

RONALD P. DAVIS
Fire Chief

Enclosure

CC: Daren Suzuki,
Planning Department (w/o enclosure)

MAR - 4 1993

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
70 S. HIGH STREET, RM. 215
WAILUKU, HAWAII
96793

Date: March 1, 1993

Mr. Milton Arakawa
Michael T. Munekiyo Consulting Inc.
1823 Wells Street, Suite 3
Wailuku, Hawaii 96793

Dear Mr. Arakawa,

RE: Kula Fire Station; TMK:2-2-14: port. of 1

I have reviewed the draft environmental assessment and the drainage and erosion control report of the proposed Kula Fire Station. The drainage and erosion control report are adequate.

Sincerely,

Neal S. Fujiwara
District Conservationist

FEB 9 1993

JOHN WAIHEE
GOVERNOR OF HAWAII

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCE

DEPUTIES

JOHN P. KEPPELER, II
DONA L. HANAIKE

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
CONSERVATION AND ENVIRONMENTAL AFFAIRS
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

February 5, 1993

Mr. Michael Munekiyo, A.I.C.P.
Michael T. Munekiyo Consulting, Inc.
1823 Wells St., Suite 3
Wailuku, Hawaii 96793

LOG NO: 7302
DOC NO: 9302AG03

SUBJECT: **Historic Preservation Review of the Proposed New Kula Fire Station**
Kula, Makawao, Maui
TMK: 2-2-14: por. 1

Thank you for the opportunity to review this proposed project.

A review of our records indicates that no historic sites are present in the proposed project area. This is based on the results of an archaeological inventory survey conducted by Xamanek Researches (Fredericksen et al. 1992. Archaeological Inventory Survey of a Parcel of Land in Kula, Maui, Hawaii). Significant historic sites such as walls and mounds were found in the northern portion of this parcel, but none were found in the portion of this parcel where the new Kula Fire Station is proposed. Therefore, we believe that the proposed project will have "no effect" on significant historic sites.

Should you have any questions about these comments, please contact Ms. Annie Griffin at 587-0013.

Sincerely,

DON HIBBARD, Administrator
State Historic Preservation Division

AG:amk

MAR - 2 1993

JOHN WAIHEE
GOVERNOR
STATE OF HAWAII

HOALIKU L. DRAKE
CHAIRMAN
HAWAIIAN HOMES COMMISSION

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P. O. BOX 1879
HONOLULU, HAWAII 96805

March 2, 1993

Mr. Milton Arakawa
Michael T. Munekiyo Consulting, Inc.
1823 Wells Street, Suite 3
Wailuku, Hawaii 96793

Dear Mr. Arakawa:

SUBJECT: Kula Fire Station

Thank you for the opportunity to review the February 1993 draft environmental assessment for the Kula Fire Station, proposed along the Kula Highway at the intersection with Calasa Road (Tax Map Key 2-2-14: portion of 1).

Much of this department's future homesteading areas at Waiohuli and Keokea would be within the five (5) mile service radius of this new facility. Being that adequate fire protection is important for the health and safety of our homesteaders, the Department of Hawaiian Home Lands strongly supports this project. Adequate protection against fire will improve the chances of area households for obtaining affordable home owners insurance.

Thank you for the opportunity to comment. Should there be any questions, please call Ben Henderson of our Planning Office at 586-3837.

Warmest aloha,

Hoaliku L. Drake

Hoaliku L. Drake, Chairman
Hawaiian Homes Commission

HLD:BH:JC:asy/2731L

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96732-0398 • (808) 871-8461

MAR - 3 1993

March 1, 1993

Mr. Milton Arakawa
Michael T. Munekiyo Consulting, Inc.
1823 Wells St., Suite 3
Wailuku, Hawaii 96793

Dear Mr. Arakawa:

Subject: Kula Fire Station
Draft Environmental Assessment (EA)

Thank you for allowing us to comment on the subject project's draft EA.

In reviewing our records, a service request (M124567) for this project was received on January 21, 1993. A Customer Planner from MECo's Engineering Department has been assigned to this project and will continue to work with the project's electrical consultant (ECM, Inc.).

If you have any questions or concerns, please call Fred Oshiro at 872-3202.

Sincerely,

Neal Shinjama

for Edward Reinhardt
Manager, Engineering

FO:rt

FEB 2 4 1993

JOHN WAIHEE
GOVERNOR OF HAWAII

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

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

PAUL E. HOFFMAN, M.D., M.P.H.
DISTRICT HEALTH SERVICES ADMINISTRATOR (M.D.)

February 23, 1993

Mr. Michael T. Munekiyo
Michael T. Munekiyo Consulting, Inc.
1823 Wells Street, Suite 3
Wailuku, Hawaii 96793

Attn: Milton Arakawa

Dear Mr. Munekiyo:

Subject: Kula Fire Station

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the subject proposal. We have no comments at this time.

Sincerely,

David H. Nakagawa

DAVID H. NAKAGAWA
Chief Sanitarian

MAR 1 0 1993

JOHN WAIHEE
GOVERNOR OF HAWAII

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

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

March 3, 1993

In reply, please refer to:
93-018/epo

Mr. Michael T. Munekiyo, A.I.C.P
Michael T. Munekiyo Consulting, Inc.
1823 Wells Street, Suite 3
Wailuku, Hawaii 96793

Dear Mr. Munekiyo:

Subject: Proposed Construction of New Kula Fire Station
Kula, Maui
TMK: 2-2-14: Portion 1

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

Wastewater

The subject project is located in the critical wastewater disposal area as determined by the Maui County Wastewater Advisory Committee. No new cesspools will be allowed in the subject area.

As there is no existing sewer service system in the area, and none will not be constructed in the near future, the Department of Health (DOH) recommends the use of a treatment individual wastewater system such as a septic tank or aerobic treatment unit be constructed on-site. Section 11-62-31.1 of the Department of Health's (DOH's) Administrative Rules, "Wastewater Systems," states that for developments involving buildings other than dwellings, the wastewater flow generated shall not exceed 1000 gallons per day per 10,000 square feet of usable land area, which shall not include the area under the buildings.

All wastewater plans must conform to applicable provisions of the DOH's Administrative Rules, Chapter 11-62, "Wastewater Systems," and we reserve the right to review the detailed plans for conformance to applicable rules.

If you should have any questions on this matter, please contact Ms. Lori Kajiwara of the Wastewater Branch at 586-4290.

Noise and Radiation

The facility should be designed to minimize potential noise impacts on adjacent residences from stationary equipment such as generators and air conditioning units.

Please note that in regards to construction noise, the provisions of our Administrative Rules, Chapters 11-42 and 11-43, apply only to the island of Oahu. However, mitigative measures toward minimizing noise disturbances from construction activities should also be implemented on the neighbor islands.

If you should have any questions on this matter, please contact Mr. Jerry Haruno, Environmental Health Program Manager, Noise and Radiation Branch at 586-4701.

Due to preliminary plans being the sole source of discussion, we reserve the right to impose future environmental restrictions on the project when more detailed information is submitted.

Very truly yours,

JOHN C. LEWIN, M.D.
Director of Health

c: Wastewater Branch
Noise and Radiation Branch

DOT 4-721
(HWY-M 11/87)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MAUI DISTRICT
TRANSMITTAL MEMORANDUM

FEB 24 [illegible]

TO Michael T. Munekiyo Consulting, Inc. Letter No. HWY-M 2.698-93

DATE 2/22/93

Attn: Mr. Milton Arakawa

FROM District Engineer, Maui

SUBJECT: Kahului Fire Station M-92-18

We are forwarding the following: ☒ attached ☐ under separate cover

☐ shop drawings ☐ prints/sketches ☐ mix design

☐ calculations ☐ change order ☐ plans

☐ ____________ ☐ letter/memo

☐ COPIES	DESCRIPTION
☐ SETS 1	Draft EA

These are transmitted as checked below:

☐ for approval ☐ approved as submitted

☐ for review and comments ☐ approved as noted

☐ for your information & file ☐ returned for corrections

☒ appropriate attention & action ☐ resubmit ______ copies for approval

☐ as requested

REMARKS: Our comments are noted in the draft EA.

Copies sent to:

This space for reply:

Signed [signature]
By Robert C. Siarot
for District Engineer, Maui

650 Palapala Drive, Kahului, Hawaii 96732

C. ***PROPOSED IMPROVEMENTS***

The proposed Kula Fire Station consists of a single story concrete masonry unit (CMU) and wood-framed structure of approximately 3,900 square feet, which will include a parking garage for two (2) fire trucks, a dining/meeting room, a kitchen, a dormitory providing space for six (6) beds, lavatories, showers, officer's quarters, office space, an emergency generator room, a fire extinguisher room, and a weight room. See Figure 2, Figure 3, Figure 4, and Figure 5. In addition to the CMU structure, there will be an above-ground fuel storage tank, a concrete pad truck turn-around and wash area (approximately 33 feet by 35 feet), an oil intercepter, emergency traffic signal lights and a septic tank. While not funded at this time, the site is also designed to accommodate emergency medical service. Such medical services would be funded by the State of Hawaii.

Access to the new station will be gained from the south side of the property via Calasa Road. A second driveway, which will provide fire trucks with direct access to Kula Highway, will be used for emergency purposes only. A total of fourteen (14) parking stalls and a handicapped stall are proposed for employee and public use.

Since the fire station is proposed on lands within the State Agricultural District which do not permit fire station use, a State Special Use Permit is required from the Maui Planning Commission.

Preliminary estimates indicate that the project will cost approximately $1.2 million. Assuming applicable permits are obtained, construction of the proposed project is scheduled to begin in the second half of 1993, with completion targeted for mid-1994.

How does our culvert impact Kula Recreation Ctr. & Kula Fire Sta.

Where does the flow of 78" culvert go Fire Sta to?

Please check w/ civil consultant for other comments. Construction plans are being reviewed by us.

the Kula Recreation Center, which also considered the land area of the fire station site, the runoff generated by the Recreation Center and an area mauka of the project under existing conditions is 30.8 cubic feet per second (cfs) for a 10-year storm. Total runoff generated by the proposed Recreation Center project and an area mauka of the project under developed conditions is 40.9 cfs.

Approximately 34.7 cfs of runoff will be handled by an existing swale along Calasa Road. In connection with the Recreation Center project, a gunite drainage ditch with a capacity of 17.3 cfs is being built.

5. ***Electrical***

Maui Electric Company, which has utility poles and over head lines located north of the proposed site, will provide electrical service to the site.

Although not part of the current fire station project due to timing and funding limitations, emergency medical services are being considered for future implementation. This would provide for a significant increase in the level of ambulance service in the Upcountry region.

C. INFRASTRUCTURE

1. Roadways

Emergency access for firefighting vehicles will be directly to Kula Highway. Emergency traffic signal lights are proposed to be constructed at the emergency access driveway's intersection with Kula Highway. The lights are needed from a traffic safety standpoint and would be utilized only during emergency situations. Implementation of the signal lights will be coordinated with the Department of Transportation.

Normal vehicular access to the project site will be via Calasa Road. Any realignment of Calasa Road to be done in conjunction with the Kula Recreation Center Project will be coordinated with the County Department of Parks and Recreation.

Five (5) employees are projected to be stationed at the fire station per 24-hour shift. There are three (3) work shifts with a total of fifteen (15) employees assigned to the Kula Fire Station. With the relatively low number of people generated by the proposed use, the proposed project's impacts upon the public roadway system are not expected to be significant. With the relatively low traffic generation of the proposed use and its minimal impact upon the area's roadways, a traffic study is not warranted.

2. ***Water***

The proposed project is anticipated to generate an average daily water demand of 600 gallons per day. Moreover, the project would incorporate Xeriscape principles including the use of low water demand plants which minimizes the impact of water usage for landscape irrigation. Appropriate water system improvements will also be constructed to address fire flow requirements.. The project is not expected to have a significant impact upon the water source, storage and transmission system.

upstream flow may impact station as well as Kula Rec. Center. Provide mitigation measures

3. ***Drainage***

The Drainage and Erosion Control Report for the Kula Recreation Center considered the land area of the fire station within its scope of work. As part of the Recreation Center project, a gunite drainage ditch is being constructed. The ditch, along with the drainage system along Calasa Road would be sufficient to handle runoff for the proposed recreation center. Regarding drainage concerns for the fire station site, these will be coordinated and discussed with the County Department of Public Works as part of the State Special Use Permit process.

4. ***Wastewater***

The proposed project is anticipated to generate an average daily flow of approximately 400 gallons per day of wastewater. The site is not serviced by County wastewater treatment system and is considered a critical wastewater disposal area. Thus, septic tanks will be utilized for wastewater disposal.

References

REFERENCES

Community Resources, Inc., Maui County Community Plan Update Program, Socio-Economic Forecast Report, March 1992.

Gushi, Russel Y., A.S.L.A., Environmental Assessment for the Proposed County of Maui Kula Recreation Center, November 1992.

Norman Saito Engineering Consultants, Inc., Drainage and Erosion Control Report for Kula Recreation Center, October 1992.

Pacific Planning and Engineering, Inc., Traffic Impact Assessment Report for Kula Recreation Center, Prepared for County of Maui, Department of Parks and Recreation, October, 1992.

University of Hawaii, Department of Geography, Atlas of Hawaii, Second Edition, University of Hawaii Press, 1983.

U.S. Soil Conservation Service, Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii, U.S. Government Printing Office, 1972.

Wilson Okamoto & Associates, Inc., Maui Community Plan Update Infrastructure Assessment, September 1992.

Xamanek Researches, Archaeological Inventory Survey of a Parcel of Land in Kula, Maui, Hawaii (TMK 2-2-14:1, State Site #50-11-2899, October, 1991, Revised July, 1992.

Appendix A

Drainage and Soil Erosion Control Report

DRAINAGE AND SOIL EROSION CONTROL REPORT

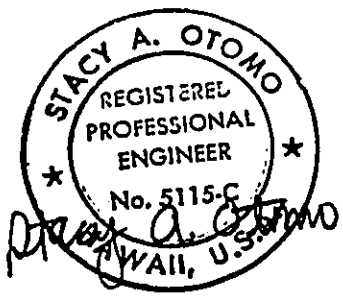
FOR

KULA FIRE STATION
Kula, Maui, Hawaii

T.M.K.: 2-2-14: portion of 01

Prepared For:

BAYLESS ARCHITECTS, INC.
1885 Main Street, Suite 408
Wailuku, Maui, Hawaii 96793



Prepared By:

OTOMO ENGINEERING, INC.
Consulting Civil Engineers
1129 E. Main Street, Suite 102
Wailuku, Maui, Hawaii 96793

February, 1993

TABLE OF CONTENTS

DRAINAGE AND SOIL EROSION CONTROL REPORT
FOR
KULA FIRE STATION
Kula, Maui, Hawaii

I. INTRODUCTION

The purpose of this report is to examine both the existing and proposed drainage conditions for the proposed Kula Fire Station.

In addition, this examination and plan has been prepared to determine the potential movement of soil due to rainfall and surface runoff from the project site, and to prepare for measures which will control erosion therefrom. This is in accordance with Chapter 20.08 "Soil Erosion and Sediment Control" of the Maui County Code as part of the application for the building and grading permits.

II. SITE LOCATION AND PROJECT DESCRIPTION

The County of Maui proposes to construct a fire station at the southeastern corner of the Kula Recreation Center. The parcel is identified as T.M.K.: 2–2–14: 01. Associated improvements include paved parking areas and access driveways and related utility installation.

The proposed site is located within the Kula Recreation Center and encompasses an area of approximately 1.3 acres. It is bordered by the Kula Recreation Center to the north and west, Kula Highway to the east, and Calasa Road to the south.

III. EXISTING TOPOGRAPHY AND SOIL CONDITIONS

Presently, the project site is vacant land overgrown with trees and noxious grasses.

The existing ground slopes in an east to west direction from an elevation of approximately 2,906± feet to 2,870± feet with an average slope of approximately 16%.

According to the "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (August, 1972)," prepared by the United States Department of Agriculture Soil Conservation Service, the soil within the project site is classified as Kula cobbly loam (KxaD). It is characterized as having moderately rapid permeability, medium runoff and moderate erosion hazard.

IV. EXISTING DRAINAGE CONDITIONS

There are no major drainageways in the project site. Waiakoa Gulch is 1,700 feet south of the project site and Keahuaiwi Gulch is 3,600 feet north of the project site.

Although there are no existing drainage facilities on the project site, the Kula Recreation Center project will be installing an onsite drainage network. The onsite system will be diverted by underground culverts along Calasa Road to an existing swale on the west side of Calasa Road.

Our calculations show that approximately 1.8 cfs currently sheet flows from the project site through the Kula Recreation Center site.

V. FLOOD AND TSUNAMI ZONE

According to Panel Number 150003 0001–0400 (Map Index) of the Flood Insurance Rate Map, revised September 6, 1989, prepared by the United States Federal Emergency Management Agency, the entire project site is situated in Flood Zone C. This zone represents areas of minimal flooding and no tsunami hazard.

VI. PROPOSED DRAINAGE PLAN

Runoff from the project site will sheet flow into the drainage facilities installed for the Kula Recreation Center project. Alterations to the existing drainage pattern will be kept to a minimum.

Our calculations show that approximately 2.2 cfs of surface runoff will be generated from the project site after development. Accordingly, there will be a net increase of 0.4 cfs (2.2 cfs – 1.8 cfs) due to the proposed development.

VII. HYDROLOGIC CALCULATIONS

The hydrologic calculations are based on the "Drainage Master Plan for the County of Maui," and the "Rainfall Frequency Atlas of the Hawaiian Islands," Technical Paper No. 43, U.S. Department of Commerce, Weather Bureau.

Rational Formula Used: $Q = CIA$

Where Q = rate of flow (cfs)

C = rainfall coefficient

I = rainfall intensity for a duration equal to the time of concentration (inches/hour)

A = drainage area (Acres)

See Appendix A for Hydrologic Calculations

VIII. SOIL EROSION CONTROL PLAN

A. General:

Based on the Hawaii Environmental Simulation Laboratory (HESL) equations to estimate soil loss during the construction period, and complemented by the following erosion control plan, the soil loss during the construction period is well within the tolerable limits (See Appendix B).

Based on the County Erosion Control Standards and Guidelines, the allowable erosion rate is 6,250 tons/acre/year for a 6–month grading period and the maximum tolerable severity rating number (H) is 50,000.

B. Erosion Control Plan:

The following measures will be taken to control erosion during the site development period (estimated 6 months).

1. Minimize time of construction.
2. Retain existing ground cover until latest date to complete construction.
3. Early construction of drainage control features.
4. Use temporary area sprinklers in non–active construction areas when ground cover is removed.
5. Station water truck on site during construction period to provide for immediate sprinkling, as needed, in active construction zones (weekends and holidays included).
6. Use temporary berms and cut–off ditches, where needed, for control of erosion.
7. Graded areas shall be thoroughly watered after construction activity has ceased for the day and on weekends.

8. All cut and fill slopes shall be sodded or planted immediately after grading work has been completed.

The development project is provided with adequate facilities for drainage control and storm water disposal. This, together with ultimate ground cover, shall preclude any appreciable onsite erosion.

IX. CONCLUSION

The construction of the proposed Kula Fire Station is expected to generate an additional 0.4 cfs of onsite surface runoff. The proposed drainage plan will allow surface runoff to be intercepted and disposed by the Kula Recreation Center drainage system.

Together with the offsite surface runoff, the existing drainage pattern will be maintained. The Kula Recreation Center drainage system is capable of handling the increase in flow.

Based on our calculations, the sedimentation hazard to coastal waters and downstream properties is minimal (see Exhibit B). The soil loss per unit area and severity rating computed for the proposed development are well within the tolerable limits.

Therefore, it is our professional opinion that the proposed development will not have an adverse effect on the adjoining properties downstream.

X. REFERENCES

A. Drainage Master Plans for the County of Maui, prepared by R. M. Towill Corporation, October 1971.

B. Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii, prepared by U.S. Department of Agriculture, Soil Conservation Service, August, 1972.

C. Erosion and Sediment Control Guide for Hawaii, prepared by U.S. Department of Agriculture, Soil Conservation Service, March, 1981.

D. Rainfall–Frequency Atlas of the Hawaiian Islands, Technical Paper No. 43, U.S. Department of Commerce, Weather Bureau, 1962.

E. Flood Insurance Rate Maps of the County of Maui, September, 1989.

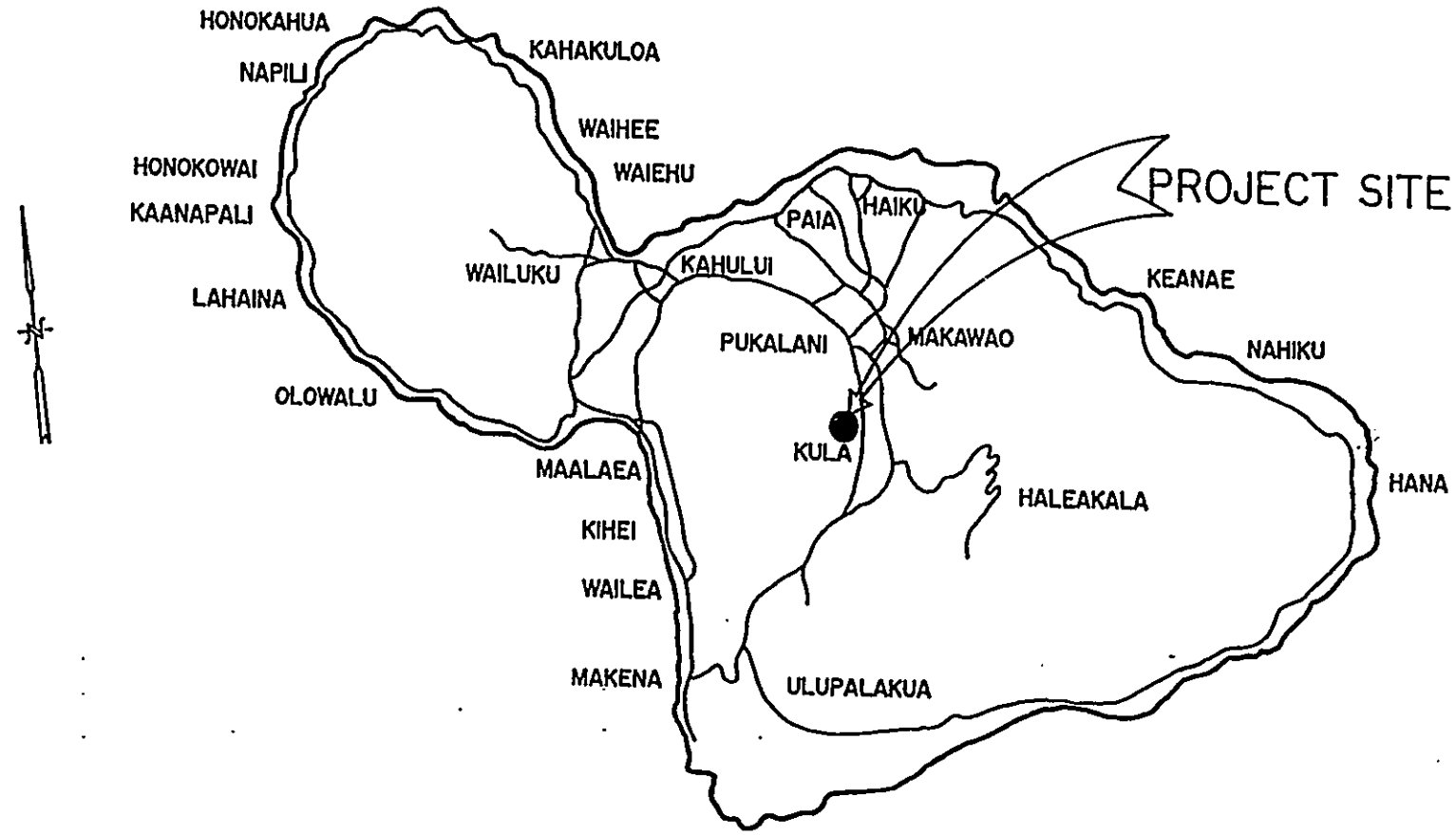
F. Drainage and Erosion Control Report for Kula Recreation Center, prepared by Norman Saito Engineering Consultants, Inc., October, 1992.

EXHIBITS

1 Location Map

2 Vicinity Map

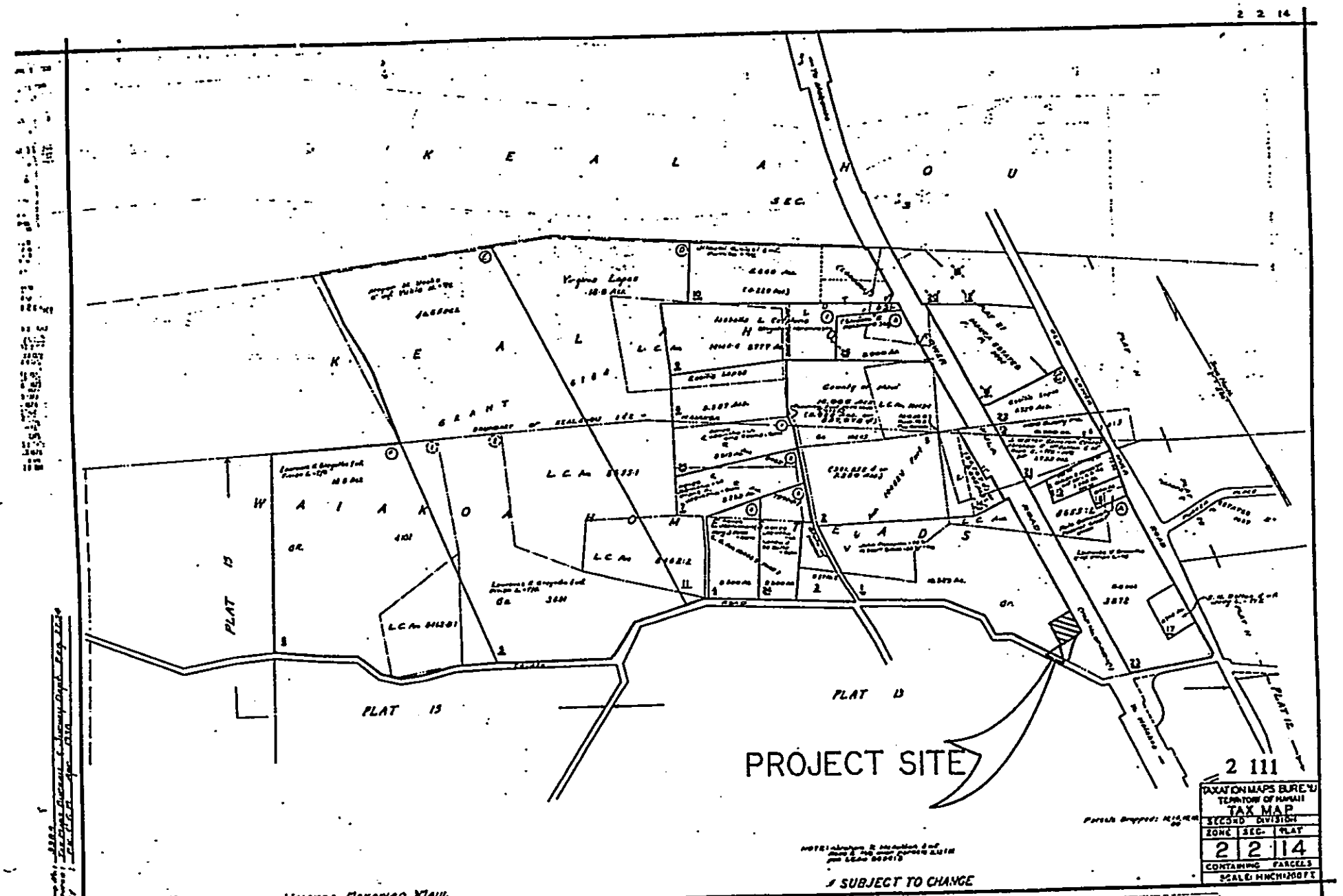
3 Soil Survey Map



ISLAND OF MAUI

NOT TO SCALE

EXHIBIT I
Vicinity Map



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Vicinity Map

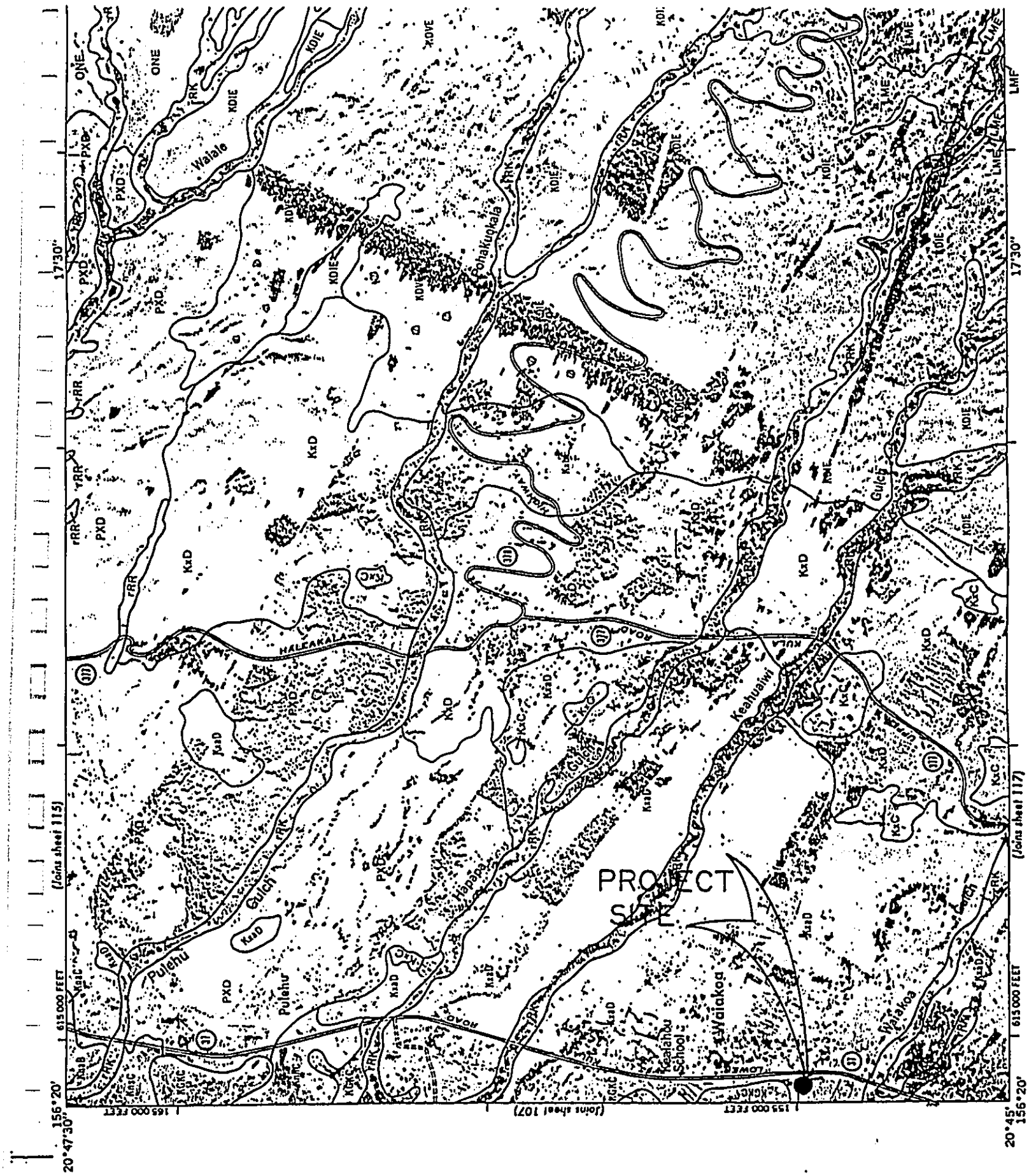

EXHIBIT 3
Soil Survey Map

APPENDIX A

HYDROLOGIC CALCULATIONS

Hydrologic Calculations

Purpose: Determine the increase in surface runoff from the development of the proposed project based on a 10–year storm.

A. Determine the Runoff Coefficient (C):

Existing Conditions:

Infiltration (Medium)	= 0.07
Relief (Hilly)	= 0.06
Vegetal Cover (Good)	= 0.03
Development Type (Open)	= 0.15
	C = 0.31

Developed Conditions:

Pavement Areas:

Infiltration (Negligible)	= 0.20
Relief (Flat)	= 0.00
Vegetal Cover (None)	= 0.07
Development Type (Industrial)	= 0.55
	C = 0.82

Roof Areas:

Infiltration (Negligible)	= 0.20
Relief (Steep)	= 0.08
Vegetal Cover (None)	= 0.07
Development Type (Industrial)	= 0.55
	C = 0.90

Landscaped Areas:

Infiltration (High)	= 0.00
Relief (Hilly)	= 0.06
Vegetal Cover (High)	= 0.00
Development Type (Open)	= 0.15
	C = 0.21

Pavement Areas = 0.2 Acres

Roof Areas = 0.1 Acres

Landscaped Areas = 1.0 Acres

$$\textit{Weighted } C = \frac{(0.2 \times 0.82) + (0.1 \times 0.90) + (1.0 \times 0.21)}{1.3} = 0.36$$

B. Determine the 10–year 1–hour rainfall:

i_{10} = 2.3 inches

Adjust for time of concentration to compute Rainfall Intensity (I):

Existing Conditions:

T_c = 12 minutes

I = 4.5 inches/hour

Developed Conditions:

T_c = 10 minutes

I = 4.75 inches/hour

C. Drainage Area (A) = 1.3 acres

D. Compute the 10–year storm runoff volume (Q):

$$Q = CIA$$

Existing Conditions:

$$Q = (0.31)(4.5)(1.3)$$

$$= 1.8 \text{ cfs}$$

Developed Conditions:

$$Q = (0.36)(4.75)(1.3)$$

$$= 2.2 \text{ cfs}$$

Therefore, the increase in runoff due to the proposed development is $2.2 - 1.8 = 0.4$ cfs.

APPENDIX B

UNIVERSAL SOIL LOSS CALCULATIONS

Universal Soil Loss Calculations

A. HESL Soil Loss Calculations:

1. Erosion rate, as set forth by the County of Maui Ordinance:

$$E = R \times K \times LS \times C \times P$$

Where:

E = Soil Loss in tons/acre/year

R = *Rainfall Factor = 185 tons/acre/year*

K = Soil Erodibility Factor = 0.17 (Kula cobbly loam)

L = Slope Length = 225 ft.

S = Slope Gradient = 0.16

LS = Slope Length Factor = 4.2

C = Cover Factor, Use Bare Soil = 1.0

P = Control Factor, Construction Site = 1.0

E = 185 x 0.17 x 4.2 x 1.0 x 1.0

= 132 tons/acre/year

2. Maximum Allowable Soil Loss:

Emax = Hmax / (2 F T + 3 D) A

Coastal Water Hazard (D) = Class A = 2

Downstream Hazard (F) = 2

Duration of Site Work = 6 months

Maximum Allowable Construction Area x Erosion Rate
= 6,250 tons/acre/year

B. Severity Rating Number:

1. The degree of hazard from potential damage by erosion and sediment, known as "Severity Rating Number" will be determined for each grading site as follows:

$$H = (2\,F\,T + 3\,D)\,A\,E$$

Where:

H = Severity Rating Number

F = Unit Downslope/Downstream factor = 2

D = Unit Coastal Water Hazard = 2

T = Time of Distribution (years) = 0.5

A = Area of Disturbance (acres) = 1.3

E = Erosion Rate in tons/acre/year

$$H = (2 \times 2 \times 0.5 + 3 \times 2) \times 1.3 \times 132 = 1{,}373$$

The maximum allowable severity rating number established is 50,000, and is greater than 1,373 which is computed for the project.