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STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

SEP 28 1992

'92 SEP 28 P1:55

Ref:LM-AT

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

Refer to:MA-92:515

Gentlemen:

Subject: Overhead Primary Line Extension for Ritz Carlton Overhead Feeder "B," TMK: 4-3-01:Por. of 6, Napili, 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 August 23, 1992 OEQC Bulletin. No comments were received during the thirty (30)-day review period.

As the approving agency, we are forwarding herewith one (1) copy of OEQC Bulletin Publication form. Four (4) copies of the Draft Environmental Assessment have been submitted to your office by the applicant, Maui Electric Company, Ltd., by letter dated July 22, 1992. We determined that there will be no significant impacts as a result of the project and, therefore, are filing the Environmental Assessment as a negative declaration. We respectfully request that notice of the Final Environmental Assessment be published in the October 11, 1992 OEQC Bulletin.

Should you have any questions, please contact our Land Management Division at 587-0414.

Very truly yours,

John P. Keppeler II

WILLIAM W. PATY

Enc.

cc Maui District Land Board Member
Maui District Land Office

1992-10-08-MA-FEA - Ritz Carlton Overhead Feeder "B" Primary Line Extension

Overhead Primary Line Extension for Ritz Carlton Overhead Feeder "B"

Final Environmental Assessment

Prepared for:

Maui Electric Company, Ltd.

September 1992

Michael T. Munekiyo Consulting, Inc.

Overhead Primary Line Extension for Ritz Carlton Overhead Feeder "B"

Final Environmental Assessment

Prepared for:

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September 1992

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Preface

Maui Electric Company, Ltd. (MECO) proposes to erect approximately 1,100 feet of overhead electrical distribution feeder line from its Napili Substation to Honoapiilani Highway on lands owned by the State of Hawaii (TMK: 4-3-01:por. of 6). Pursuant to Chapter 343, Hawaii Revised Statutes, and Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement Rules, this Final Environmental Assessment 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 Maui Electric Company, Ltd. The landowner of the property is the State of Hawaii.

Contact Person

For further information, contact David Park, Project Manager, Maui Electric Company, Ltd., P. O. Box 398, Kahului, Maui, Hawaii, 96732-0398, or at telephone (808) 871-2372.

Property Location and Description

The proposed project is located in a portion of Napili Gulch 4-5, mauka of Honoapiilani Highway. The areas mauka of the highway have an agricultural and open space character. On either side of the gulch are pineapple fields cultivated by Maui Land and Pineapple Company, Inc.

Areas makai of the highway include the towns of Kahana, Napili and Honokahua. The Kapalua resort destination also is situated makai of the highway in the vicinity of Fleming Beach, approximately one (1) mile from the project site.

Proposed Action

The proposed project involves a new 12 kilovolt overhead electrical distribution feeder line which would be routed from the existing Napili Substation to Honoapiilani Highway. The feeder line then runs in a northwest direction along Honoapiilani Highway and then in a makai direction to provide service to the Ritz Carlton Hotel which is presently under construction.

The proposed project which is the subject of this Final Environmental Assessment pertains to approximately 1,100 feet of overhead electrical distribution feeder line which is routed from the Napili Substation to Honoapiilani Highway (TMK: 4-3-01:por. of 6). This portion of the feeder line is located on lands owned by the State of Hawaii.

While the project is needed to provide service to the Ritz Carlton Hotel, the electrical service area will also be expanded to the larger Kapalua-Honokahua region.

Determination

There are no rare/threatened species of flora and fauna at the site. Ambient air and noise characteristics, as well as scenic and open space resources, are not anticipated to be significantly affected by the proposed project.

A portion of the project site includes the remains of a historic plantation road built prior to 1935. The road remains have been filled with dirt and currently appear to be in use as an equestrian trail. The proposed poles and anchors will be located to avoid disturbance to the road remains. During installation of the poles, equipment and vehicles will also avoid the road remains and equestrian trail.

In terms of short-term construction-related impacts and long-term impacts, the project should not result in adverse impacts to adjacent and downstream properties.

No additional employees are anticipated as a result of the proposed project. Thus, impacts upon public services and infrastructure are negligible.

In light of the foregoing findings, it is concluded that the proposed action will not have any significant impacts. Accordingly, this Final Environmental Assessment is being filed as a Negative Declaration pursuant to Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement Rules.

Chapter I

Description of the Proposed Project

I. DESCRIPTION OF THE PROPOSED PROJECT

A. PROJECT LOCATION AND LANDOWNERSHIP

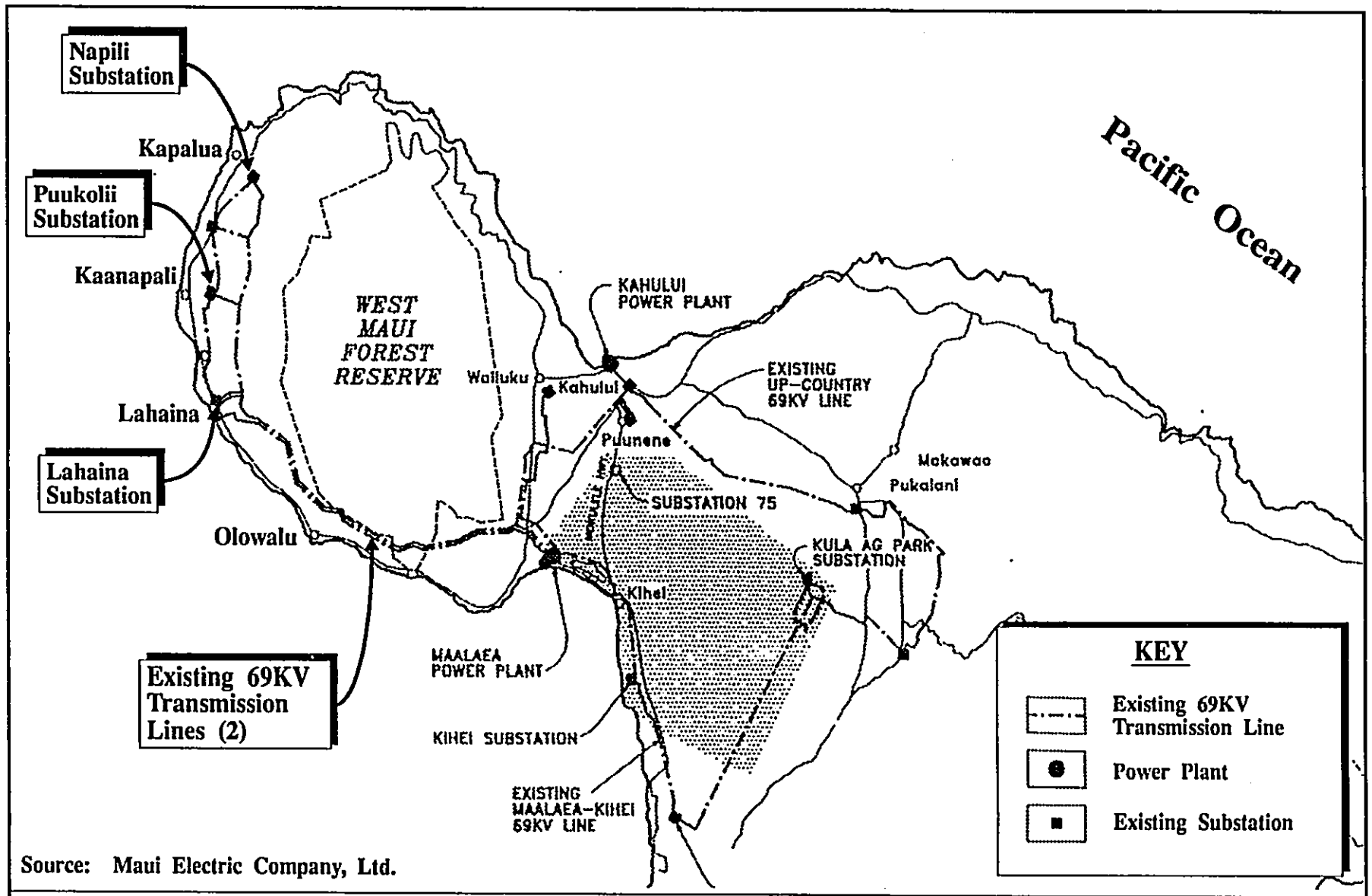
Maui Electric Company, Ltd. (MECO) provides electrical power to the West Maui region via two existing 69 kilovolt (KV) transmission lines which originate at MECO's Maalaea Power Plant (MECO, 1992). See Figure 1. To provide service to the Napili area, the two 69 KV lines are routed to the Napili Substation. An existing 12 KV powerline runs from the substation along the southern edge of the Napili Gulch 4-5 to provide electrical service to local customers in the region.

The proposed project involves a new 12 KV feeder line which would be routed from the Napili Substation to Honoapiilani Highway. The feeder line then would run in a northwest direction along Honoapiilani Highway and then in a makai direction to provide service to the Ritz Carlton Hotel which is presently under construction. See Figure 2.

The proposed project and subject of this Environmental Assessment consists of approximately 1,100 feet of overhead electrical distribution feeder line which is routed from the Napili Substation to Honoapiilani Highway (TMK: 4-3-01:portion of 6). These are located on lands owned by the State of Hawaii.

The project site is located in a portion of Napili Gulch 4-5, which runs in generally an east-west orientation from approximately the 1,400-foot elevation to Napili Bay. See Figure 3.

The areas mauka of Honoapiilani Highway have an agricultural and open space character. On either side of the mauka portion of the gulch are pineapple fields cultivated by Maui Land and Pineapple Company, Inc.



Source: Maui Electric Company, Ltd.

Figure 1 Overhead Primary Line Extension-Feeder "B"

Location of 69KV Transmission Lines

0 2.5 5.0 10.0 Mile

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Prepared for: Maui Electric Company, Ltd.

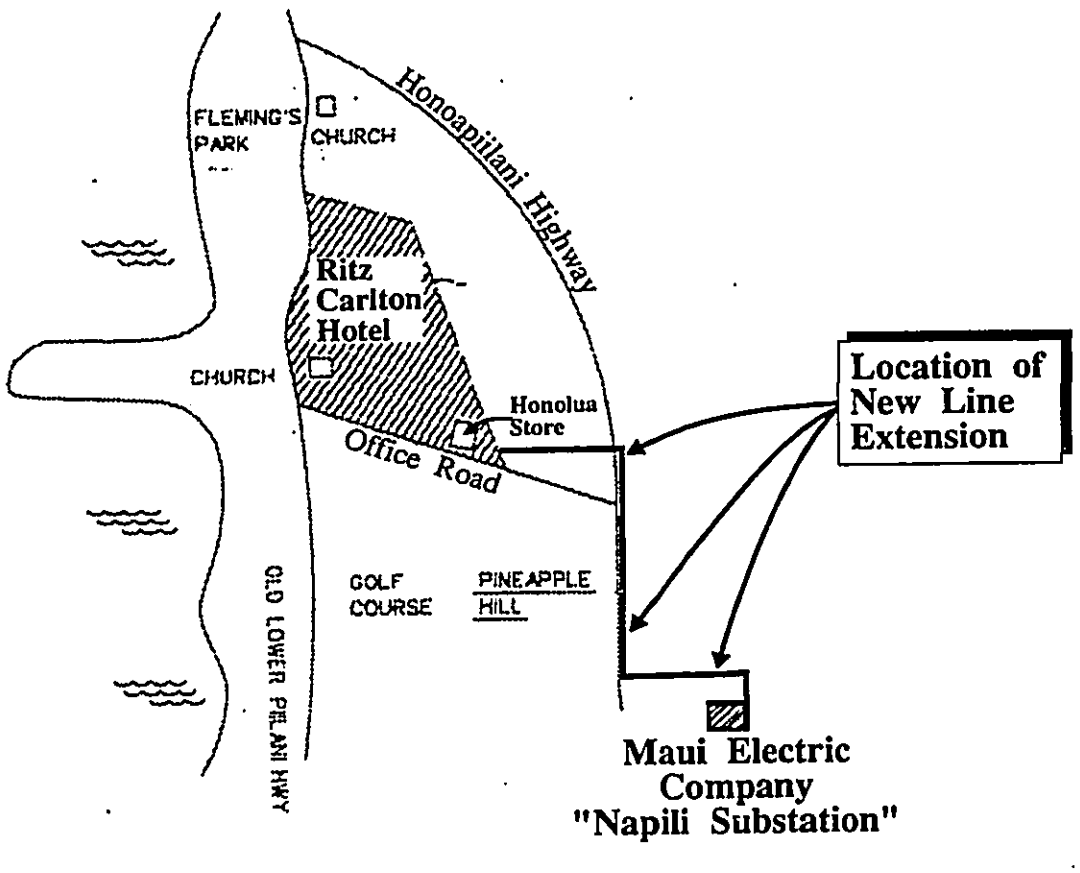


Figure 2 Overhead Primary Line Extension-Feeder "B"
Location of New Line Extension

NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.
Prepared for: Maui Electric Company, Ltd.

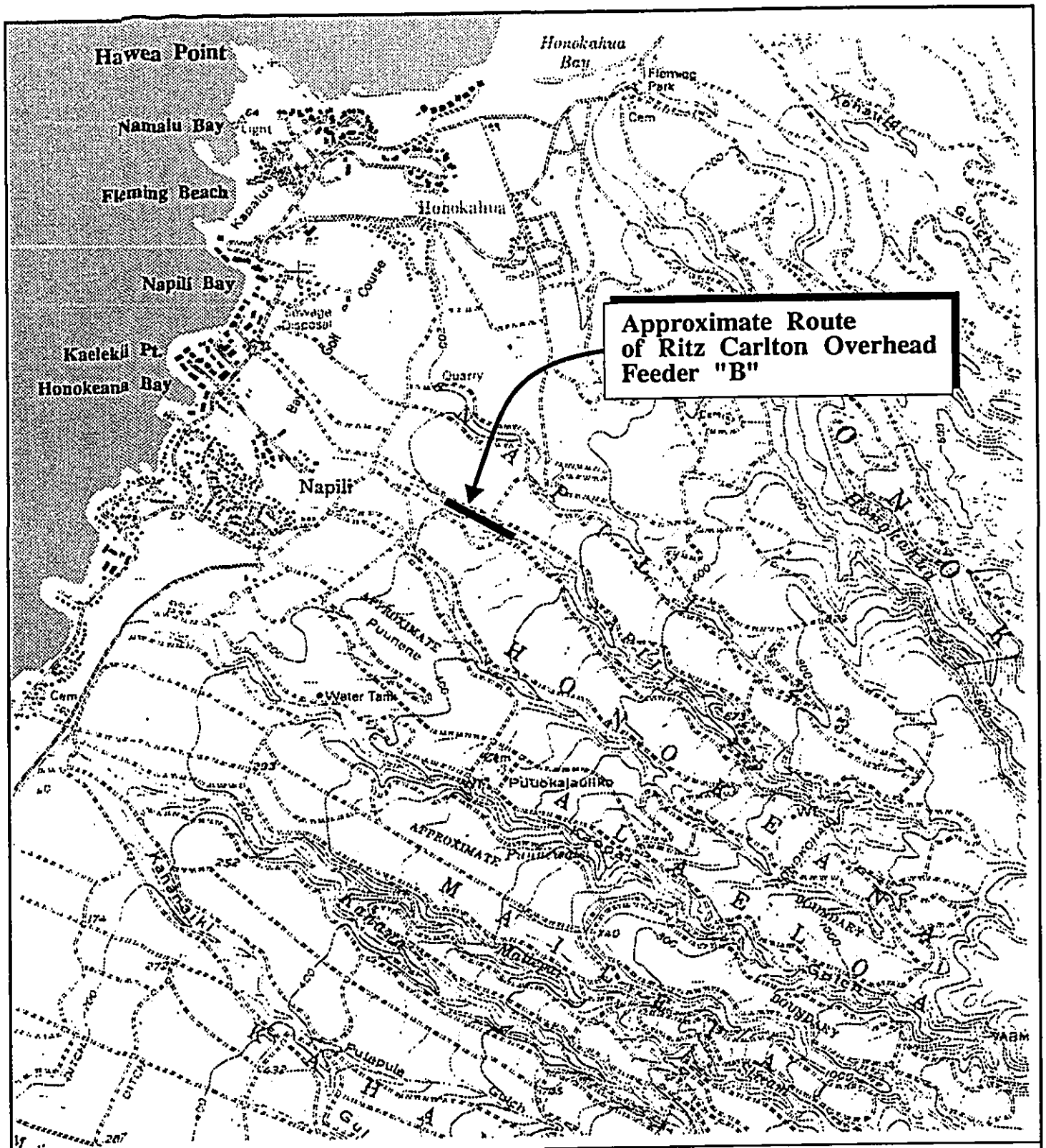


Figure 3

Overhead Primary Line Extension-Feeder "B"

Regional Location Map

Michael T. Munekiyo Consulting, Inc.

Prepared for: Maui Electric Company, Ltd.

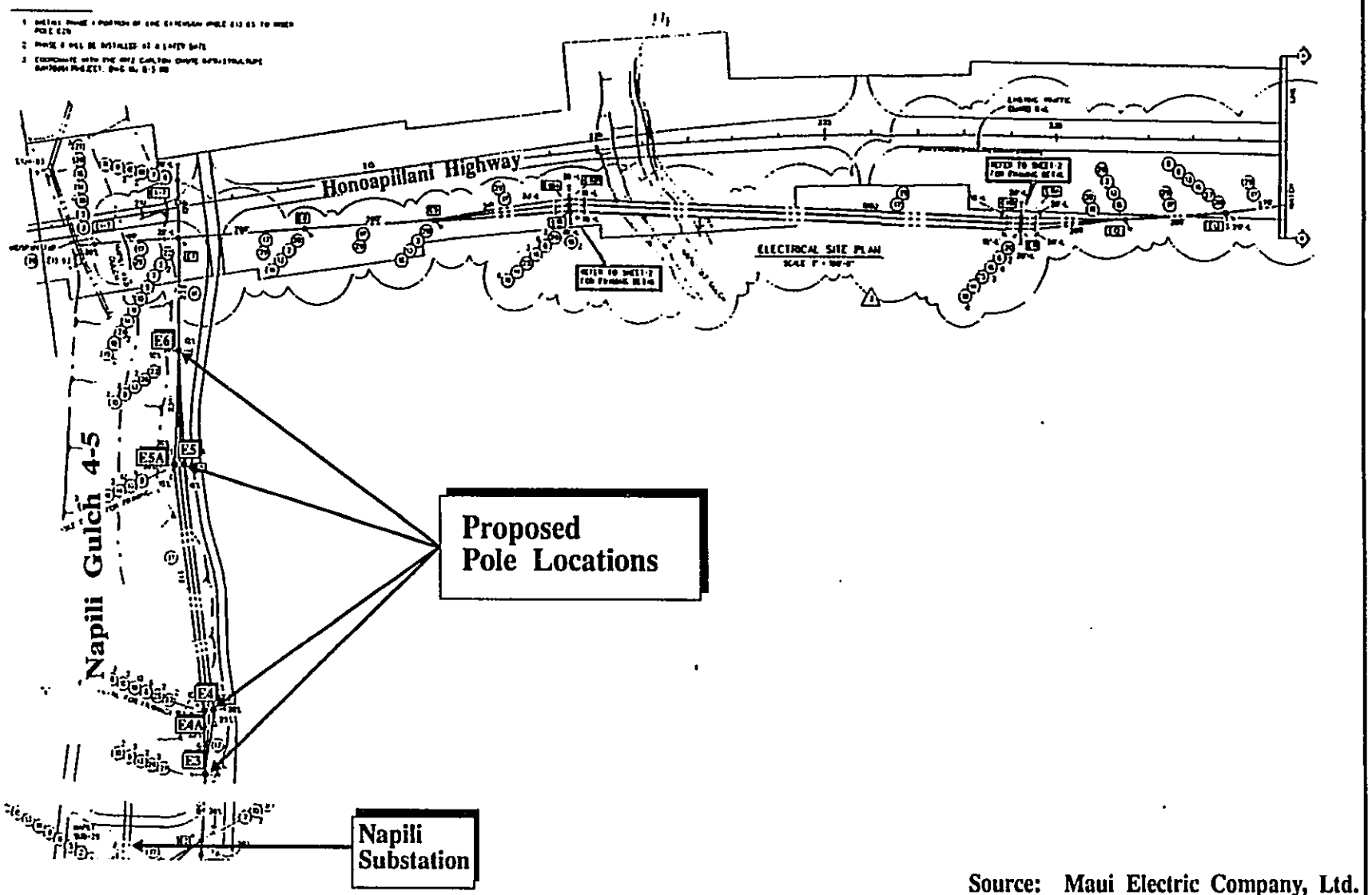
Areas makai of the highway include the towns of Kahana, Napili and Honokahua. The Kapalua resort destination also is situated makai of the highway in the vicinity of Fleming Beach, approximately one (1) mile from the project site.

B. ***PROJECT NEED***

While the proposed project is needed to provide service to the proposed Ritz Carlton Hotel, which is currently under construction, electrical service will also be expanded to the larger Kapalua-Honokahua region.

C. ***PROPOSED IMPROVEMENTS***

The proposed route of the overhead distribution lines are along the northerly side of Napili Gulch 4-5. Six (6) new overhead poles are proposed. See Figure 4. The estimated cost of the proposed improvements is $89,000. Construction is anticipated to begin in October 1992.



Source: Maui Electric Company, Ltd.

Figure 4 Overhead Primary Line Extension-Feeder "B"
Proposed Pole Locations

NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.
Prepared for: Maui Electric Company, Ltd.

Chapter II

Description of the Physical Environment

II. DESCRIPTION OF THE PHYSICAL ENVIRONMENT

A. PHYSICAL SETTING

1. Existing Land Use

The proposed distribution line would traverse an approximately 1,100 foot portion of the Napili Gulch 4-5 mauka of Honoapiilani Highway. The gulch runs in a generally east-west orientation from approximately the 1,400 foot elevation to Napili Bay.

2. Climate

Like most areas of Hawaii, West Maui's climate is relatively uniform year-round. The region's tropical latitude, its position relative to storm tracts and the Pacific anticyclone, and the surrounding ocean combine to produce this stable climate. Variations in climate among different regions, then, is largely left to local terrain. August is historically the warmest month, while January and February are the coolest.

Rainfall at Lahaina is highly seasonal, with most precipitation occurring between October and April when winter storms hit the area. Situated on the leeward side of the West Maui Mountains, this region receives most of its rainfall in late afternoon and early evening, after seabreezes take moisture upslope during the day. Precipitation data collected at the Wahikuli Station (#364) show that on average January is the wettest month, with 3.31 inches of precipitation, while June is the driest, with just 0.25 inches. The average annual total is 18.5 inches.

The winds in the region area are also seasonal. The northeasterly tradewind occurs ninety (90) percent of the time during the summer, and just fifty (50) percent of the time in the winter. Wind patterns

also vary on a daily basis, with tradewinds generally being stronger in the afternoon. During the day, winds blow onshore toward the warmer land mass. In the evening, the reverse occurs, as breezes blow toward the relatively warm ocean.

3. *Topography and Soils*

The proposed route of the distribution lines runs through sloping Napili Gulch 4-5 lands at approximately the 200-foot elevation. The gulch runs in an east to west direction. Slopes in the adjacent cultivated fields in the vicinity of the proposed distribution lines average approximately eight (8) percent.

At a regional scale, the topography of West Maui ranges from the gently sloping coastal areas to steep ridges and large amphitheater valleys. The maximum elevation of the West Maui Mountains is 5,788 feet at Puu Kukui. From the summit, streams flow in a radial pattern, indicating that the lava surface of the volcano set the original stream course.

Underlying soils of the Napili Gulch 4-5 are Rough, Broken and Stony Land (rRS). See Figure 5. Soils belonging to this association consist of very steep, stony gulches. Soil material is generally less than 20 inches deep over saprolite or bedrock. About 3 to 25 percent of the surface is covered with stones, and there are a few rock outcrops.

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

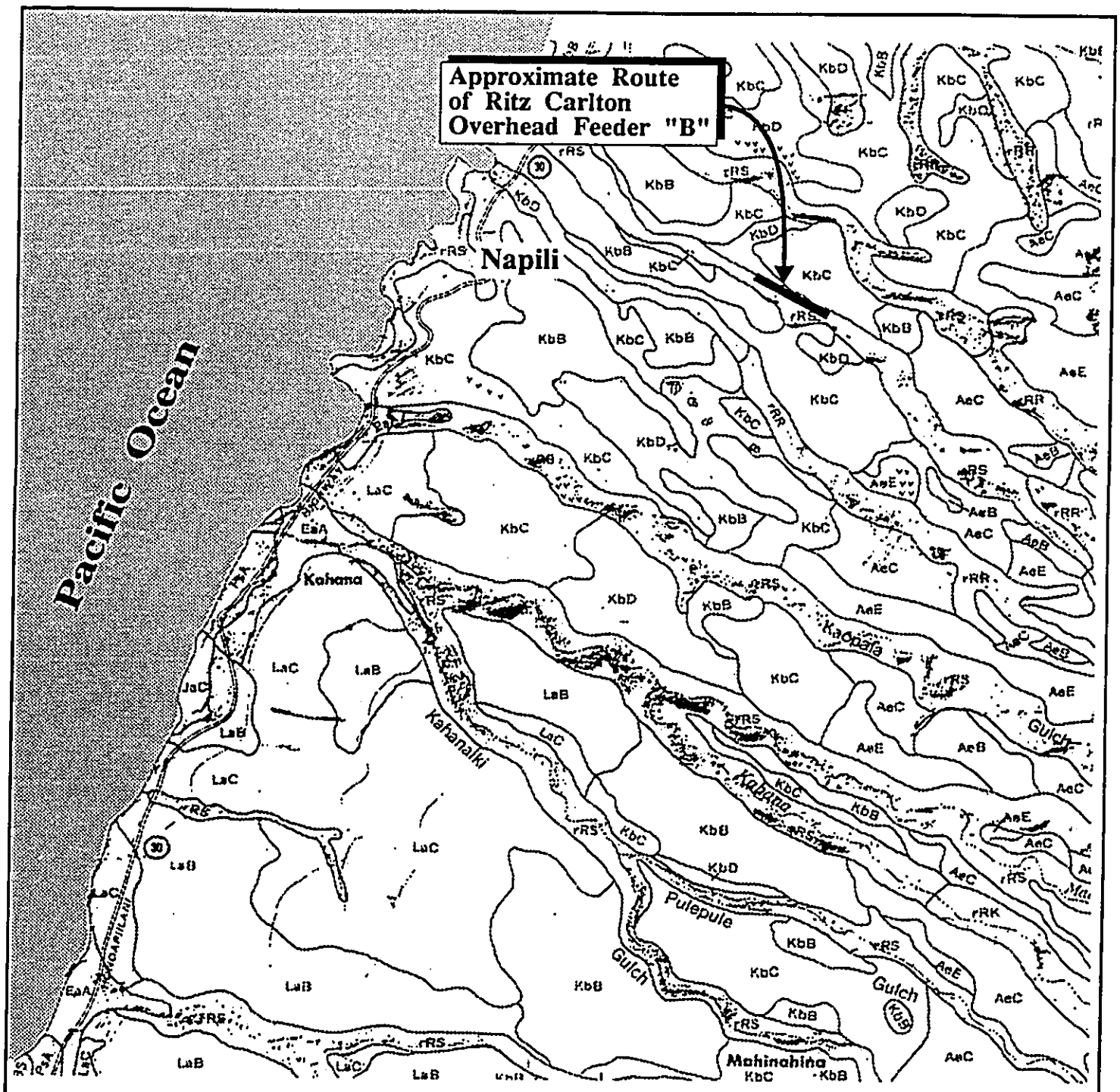


Figure 5

Overhead Primary Line Extension-Feeder "B"

Detailed Soil Classifications

Michael T. Munekiyo Consulting, Inc.

Prepared for: Maui Electric Company, Ltd.

highest productivity, with "E" rated lands ranked lowest.

4. ***Flood and Tsunami Hazard***

The proposed route for the distribution lines lies in Zone C (areas of minimal flooding) as determined by the Flood Insurance Rate Map for this region. See Figure 6.

5. ***Flora and Fauna***

The dominant vegetation within the subject portion of Napili Gulch 4-5 includes koa-haole, dry grasses, and weeds. Several Cook pine trees and a mango tree are also located in this portion of the gulch. The vegetation is typical of the agricultural nature of this area. The project site is not considered significant in terms of its vegetative resources.

The region's wildlife include a host of introduced species, including the Japanese White-eye, Zebra Dove, Spotted Dove, and Common Myna. Other mammals common to this region include rats, mice, and mongoose. The project site is not considered a significant habitat for avifauna or wildlife.

6. ***Archaeological Resources***

According to the results of an archaeological survey done for the proposed project, the site contains the remains of a historic plantation road built prior to 1935. The road was used to transport workers from the Kapalua camps to the fields. The road surface is cement and the retaining walls are constructed of cleaved basalt slabs. The existing road segment spans the Napili 4 and 5 Gulch by roughly following the natural contour to the base of the gulch from both gulch sides. Continuous cultivation has obliterated this road

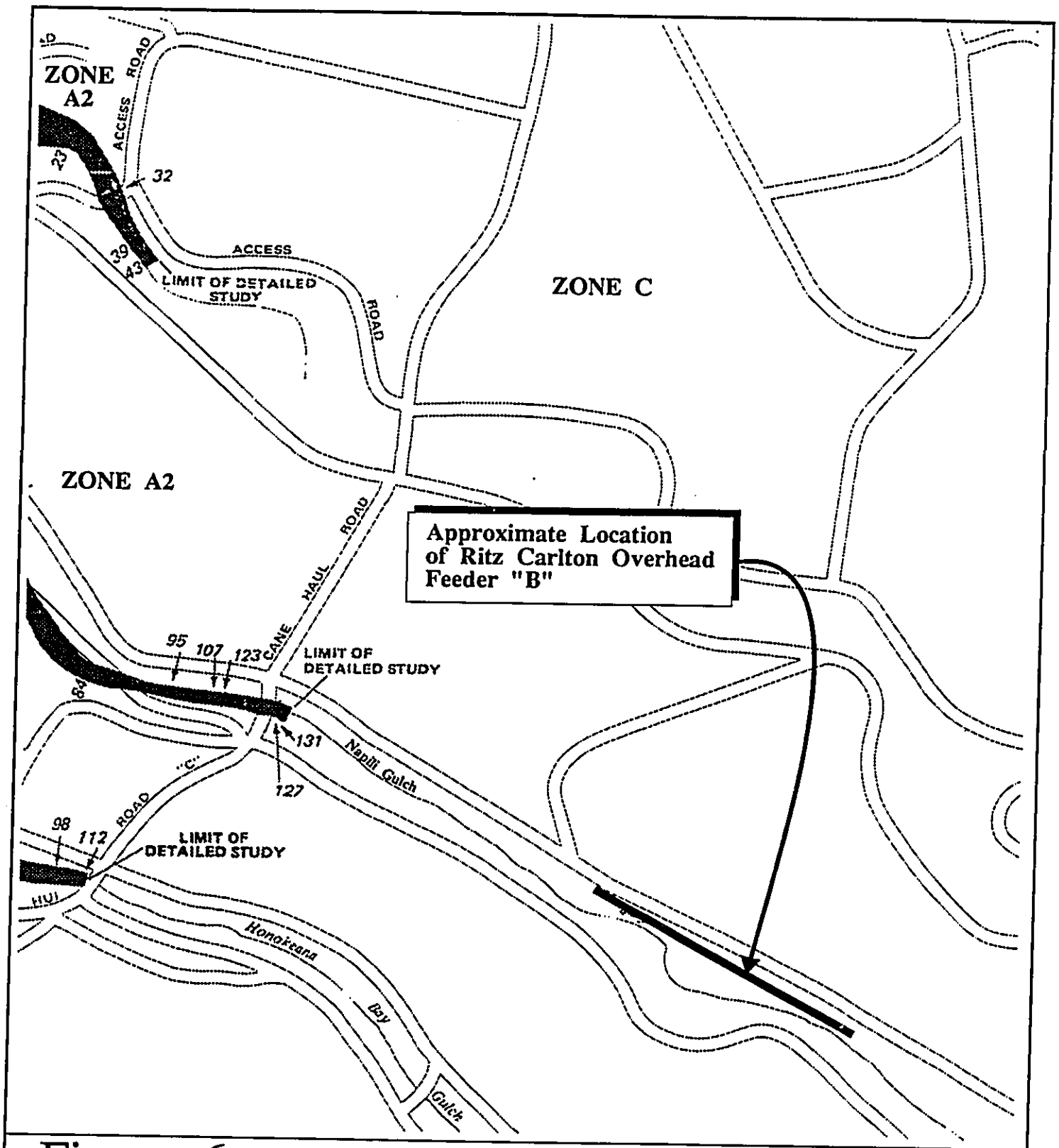


Figure 6

Overhead Primary Line Extension-Feeder "B"

Flood Insurance Rate Map

Michael T. Munekiyo Consulting, Inc.

Prepared for: Maui Electric Company, Ltd.

where it crossed through the fields on the plateaus on either side of the gulch. The road, approximately 2 to 3 meters wide, was cut into the gulch sides and dry masonry retaining walls were constructed to prevent erosion. The walls are graduated according to the height of the cuts and measure approximately .20 to .70 meters high on the north ridge and .50 to 1.0 meters high on the south ridge. A culvert, constructed of concrete and basalt slabs, is located in the gulch floor where the road crosses. The roadway is presently covered with soil and used as an equestrian trail. From its northern most portion, the roadway remains are approximately 343 feet mauka of the Honoapiilani Highway right-of-way near Pole Locations E5 and E5A. See Appendix A. See Figure 4 and Figure 7.

No other sites or features were located within the project area. The roadway, pineapple field road, Napili Substation and distribution lines, and intensive agricultural activities all contributed to the alteration and disturbance of the gulch.

7. ***Air Quality***

There are no point sources of airborne emissions in the immediate vicinity and the air quality at the property is considered good. Since adjacent lands are utilized for pineapple cultivation, the area is subject to dust and equipment emissions associated with agricultural activities. Another source of airborne pollutants is attributed to automobile exhaust from vehicles travelling on Honoapiilani Highway.

8. ***Noise Characteristics***

Background noises emanating from the subject property are attributed to natural (e.g., wind) conditions. Since the subject property is adjacent to lands cultivated for pineapple, the operation

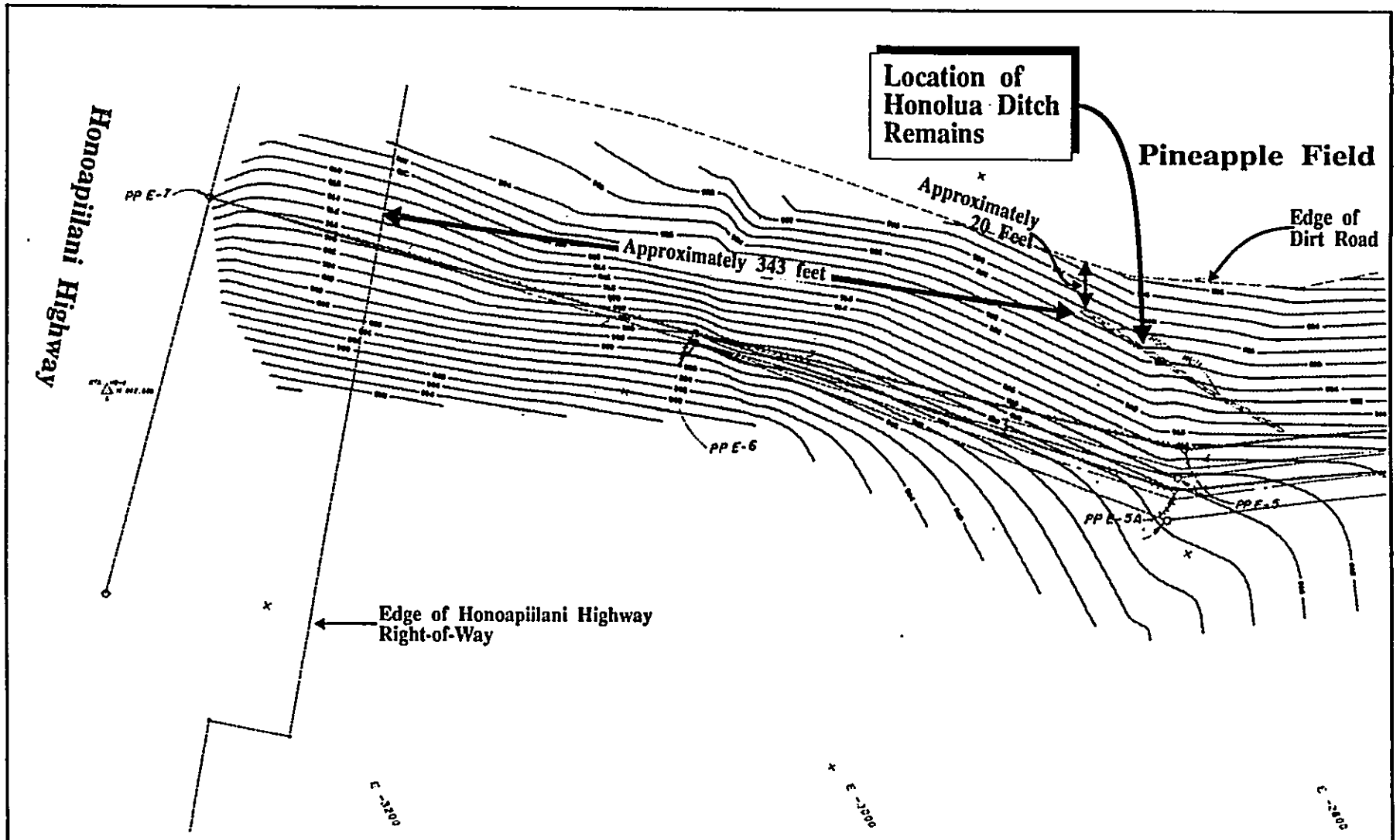


Figure 7 Overhead Primary Line Extension-Feeder "B"
Location of Honolua Ditch Remains

NOT TO SCALE

Michael T. Munekiyo Consulting, Inc.
Prepared for: Maui Electric Company, Ltd.

of agricultural equipment, such as pineapple harvesters, sprayers and trucks, contribute to noise levels on an intermittent and temporary basis. Background noise in this locale can be attributed to traffic travelling along Honoapiilani Highway.

B. COMMUNITY SETTING

1. Land Use and Community Character

The vast majority of lands in West Maui are either State designated "Conservation" or "Agricultural". Generally, "Conservation" lands occupy the higher elevations, while the "Agricultural" district spans the middle ground. Major exceptions to this trend are the Honolua Stream and Pohakupule Gulch areas where the "Conservation" district extends down to sea level.

"Urban" designated lands, then, are left to occupy the lower elevations along the coast. The communities of Kahana-Napili-Kapalua and Kaanapali contain Community Plan designations reflective of their resort nature. Lahaina, meanwhile, is more typical of a residential community. Single-family, business, light industrial, and agricultural zones prevail in Lahaina.

Napili is located approximately eight (8) miles north of Lahaina Town between Kahana and Kapalua. In a regional context, Napili is part of the Lahaina-West Maui urban/agricultural fabric. The urbanized portions of the Kahana-Napili areas, makai of Honoapiilani Highway, are typified by condominium apartments interspersed with single-family residential neighborhoods.

A key feature of the region is the town of Lahaina, which is designated a National Historic District as the one-time whaling capital

of Hawaii. Today, it is the visitor industry that defines Lahaina Town and other coastal resort communities of West Maui.

Part of West Maui's attraction can be attributed to its year-round dry and warm climate, complemented by many white-sand beaches and scenic landscape. Most all of the visitor accommodations are located in Lahaina and the resort communities of Kaanapali, Kahana, Napili, and Kapalua. The privately owned and operated Kapalua-West Maui Airport at Mahinahina conveniently links the region to Oahu and other neighbor islands.

Sugar cane and pineapple fields occupy much of the land in the area. Pioneer Mill, a vital part of the region's economy, is the State's smallest sugar plantation with approximately 6,800 acres in cultivation. Maui Land and Pineapple Company's fields sprawl along the slopes of the West Maui Mountains, north of Lahaina.

2. ***Population***

Just as the visitor count has grown, the resident population of the region surrounding the project site has increased dramatically in the last two decades. Population gains were especially pronounced in the 1970s as the rapidly developing visitor industry attracted many new residents. The resident population of the Lahaina District is estimated at 14,574. A projection of the resident population for the years 2000 and 2010 are 18,555 and 22,633, respectively (Community Resources, Inc., 1992).

Growth patterns at the County level exhibit a similar pattern. The County's 1980 resident population of 71,000 has since grown to the

present 100,000. The estimated County population for the year 2010 is 145,200 (DBED, 1990).

3. *Economy*

The economy of Maui is heavily dependent upon the visitor industry. In 1989, for example, total visitor expenditures equalled $2.3 billion. The dependency on the visitor industry is especially evident in West Maui, which is one of the State's major resort destination areas. Hotels in West Maui typically boast higher occupancy rates than the rest of the Island, with Kaanapali hotels doing especially well.

Agriculture is another vital component of the West Maui economy. Sugar operations are handled by the Pioneer Mill Co., Ltd. In 1988, it produced 47,500 tons (16.2 percent of Maui's total) and employed 324 people. Given the declining fiscal viability of sugar cane production, Pioneer Mill is also testing other crops to supplement its sugar production, including cocoa and coffee (Maui News Supplement, 1990).

Maui Land and Pineapple Company's fields remain an important component of the region's agricultural base. In 1988, Maui Land and Pineapple Company entered the fresh fruit market, air shipping pineapples to the mainland in an effort to diversify its operations.

The availability of jobs, primarily in the service sector, has resulted in a labor shortage on Maui. During the first quarter of 1991, the County was fully employed (First Hawaiian Bank Research Dept., 1991). The opening of several new, large hotels is expected to prolong the labor supply imbalance.

4. ***Housing***

As with other regions of the Island, lack of affordable housing is considered a major issue in West Maui. The current unmet Island demand is estimated at 7,500 units. The development of the 3,900 unit Lahaina Master Planned Project will relieve the housing market to some extent, though demand will still not be satisfied (PBR Hawaii, 1990).

5. ***Police and Fire Protection***

The project site is within the Lahaina Police Station service area, which services all of the Lahaina district. The Lahaina Station is located in the Lahaina Civic Center complex at Wahikuli, and was built in the early 1970s. See Figure 8. The Lahaina Patrol includes 47 full-time personnel, including one (1) captain, one (1) lieutenant, police officers, public safety aides, and administrative support staff (County of Maui, 1990).

Fire prevention, suppression and protection services for the Lahaina District is provided by the Lahaina Fire Station, also located in the Lahaina Civic Center. The Station is staffed with nine (9) firefighters per 24-hour shift.

6. ***Medical Facilities***

The only major medical facility on the Island is Maui Memorial Hospital, located approximately twenty (20) miles from Lahaina, midway between Wailuku and Kahului. The 145-bed facility provides general, acute, and emergency care services.

Private medical offices, however, are found in West Maui. For example, regular hours are offered by the Maui Medical Group,

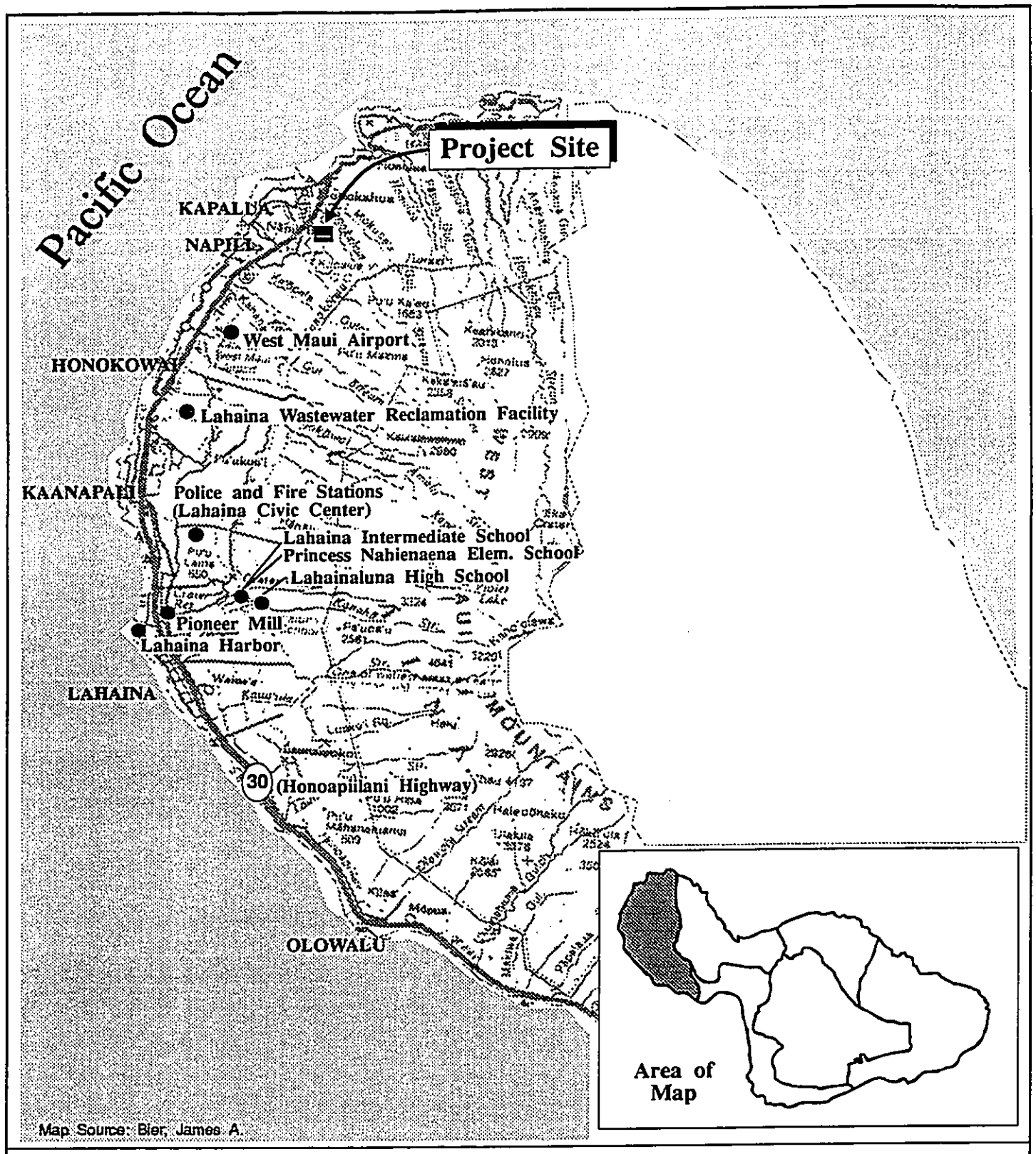


Figure 8

Overhead Primary Line Extension-Feeder "B" Community Facilities Map

0 1 2 4 Miles
Approximate Scale

Michael T. Munekiyo Consulting, Inc.
Prepared for: Maui Electric Company, Ltd.

Lahaina Physicians, West Maui Healthcare Center, and Kaiser Permanente Lahaina Clinic.

7. Recreational Facilities

West Maui is served by numerous recreational facilities offering diverse opportunities for the region's residents. There are a number of County and State beach parks in West Maui. Approximately one-third of the County parks are situated along the shoreline and are excellent swimming, diving, and snorkeling areas.

In addition, Kaanapali and Kapalua Resorts operate world-class golf courses which are available for public use.

8. Schools

The State of Hawaii, Department of Education operates four (4) public schools in West Maui. They are (with 1991 projected enrollment in parenthesis): Lahainaluna High School (769); Lahaina Intermediate School (517); King Kamehameha Elementary School (691); and Princess Nahienaena Elementary School (401). All of the public schools are located within the Lahaina Town area.

The region is also served by privately operated pre-elementary and elementary schools.

C. INFRASTRUCTURE

1. Roadway System

Honoapiilani Highway (State Highway 30) is the main roadway serving the West Maui region. This highway is the only link between West Maui and the rest of the Island (although an unimproved

segment of highway extends around the north coast of the Island to Waihee, providing limited access).

Regionally, Honoapiilani Highway is the main arterial connecting Lahaina, Kaanapali, and Kapalua. The State of Hawaii is proposing a bypass highway to run mauka of the existing Honoapiilani Highway from Puamana to Honokowai in an effort to relieve congestion on Honoapiilani Highway.

2. ***Wastewater Systems***

The County's wastewater collection and transmission system and the Lahaina Wastewater Reclamation Facility (LWRF) accommodate the region's wastewater needs. The LWRF, located along Honoapiilani Highway just north of Kaanapali Resort, has a design capacity of 6.7 MGD. Currently, usage is at 5.2 MGD. With the proposed 3,900-unit HFDC project in Wahikuli and the proposed Kaanapali North Beach project, however, plant expansion will be necessary. The County is thus proposing to expand the LWRF to 9.0 MGD capacity.

3. ***Solid Waste Disposal***

With the closing of the Olowalu Landfill, all solid wastes generated in the Lahaina region are transported to the Central Maui Landfill in Puunene. In 1988, West Maui was the source of approximately twenty (20) percent of the volume entering the landfill.

4. ***Drainage***

Since the area is agricultural in nature, it is noted that a large proportion of the runoff percolates into the ground. Rainfall which does not percolate into the ground sheet flows into Napili Gulch 4-5 or downslope to Honoapiilani Highway. Diversion swales within the

pineapple fields ultimately direct these flows into Napili Gulch 4-5. Runoff then flows through a drainage culvert under Honoapiilani Highway on its way to the ocean.

Chapter III

Potential Impacts and Mitigation Measures

III. POTENTIAL IMPACTS AND MITIGATION MEASURES

A. IMPACTS TO THE PHYSICAL ENVIRONMENT

1. Flora and Fauna

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

Similarly, there are no known rare, endangered or threatened species of avifauna and wildlife in the project vicinity. The proposed project is not anticipated to adversely impact the area's fauna and avifauna population.

2. Archaeological Resources

A portion of Napili Gulch 4-5 contains segments of a historic plantation road. The most evident remains of the roadway consists of a cleaved slab which crosses the gulch near Poles E5 and E5A. See Appendix A.

To preserve the existing road remains, downslope anchors for Poles E5 and E5A will be located to avoid disturbance to the roadway remains. During installation of the poles, equipment and vehicles will also avoid the road and equestrian trail.

A new State site number, 50-50-01-3111, was assigned to the ditch remains by the Historic Preservation Division, Department of Land and Natural Resources.

3. *Air Quality and Noise*

Air quality and noise parameters in the immediate vicinity of the project are not anticipated to be significantly affected. Inasmuch as the project site sits in the midst of active agricultural lands, construction impacts are not considered adverse.

On a long-term basis, the project will not generate adverse air quality or noise conditions.

4. *Scenic and Open Space Resources*

The proposed project will involve the placement of six (6) utility poles within an approximately 1,100-foot section of Napili Gulch 4-5.

The proposed project does not adversely impact the scenic and visual character of the surrounding open agricultural lands. The project site is located mauka of existing urbanized areas and does not encroach into scenic coastal view corridors.

B. *IMPACTS TO COMMUNITY SETTING*

1. *Population and Local Economy*

The proposed improvements will improve reliability and increase service capability of the regional electrical system.

In this regard, the proposed improvements will help to preserve the long-term economic vitality of the region by ensuring the integrity of the electrical distribution system.

2. *Public Services*

The proposed improvements will not require any additional persons to handle operations and maintenance. Thus, the employment-related impacts of the project upon public service needs, such as

police and fire protection, medical facilities, recreational facilities and schools are considered negligible.

3. ***Impacts to Electrical Distribution System***

The proposed improvements represent an incremental improvement to the electrical distribution system. The project is part of an electrical distribution system which would deliver power to the Ritz Carlton Hotel currently under construction, as well as the neighboring Kapalua and Honokahua area.

4. ***Drainage and Erosion Control***

In terms of short-term construction-related impacts, as well as long-term impacts, the proposed project would not affect existing surface drainage patterns. The overhead poles which are part of the project should not result in adverse impacts to adjacent and downstream properties.

5. ***Impacts to Other Infrastructure Systems***

The proposed improvements will not have any significant impact on roadway, water or solid waste disposal systems. With no additional employees anticipated as a result of the proposed improvements, the proposed impacts upon other infrastructure systems are expected to be negligible.

Chapter IV

Relationship to Land Use Plans, Policies and Controls

IV. RELATIONSHIP TO LAND USE 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 - "Urban", "Rural", "Agricultural", and "Conservation". The subject property is located in the "Agricultural" district. See Figure 9.

Utility lines are a permitted use within the "Agricultural" District.

B. 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, "(t)he purpose of the General Plan is to recognize and state the major problems and opportunities concerning the needs and the development of the County and the social, economic and environmental effects of such development and set forth the desired sequence, patterns and characteristics of future development".

The following General Plan objective and policy are addressed by this project:

Objective: To anticipate and provide public utilities which will meet community needs in a timely manner.

Policy: Assure the availability of power systems and sources that meet public health and safety standards.

C. LAHAINA 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,

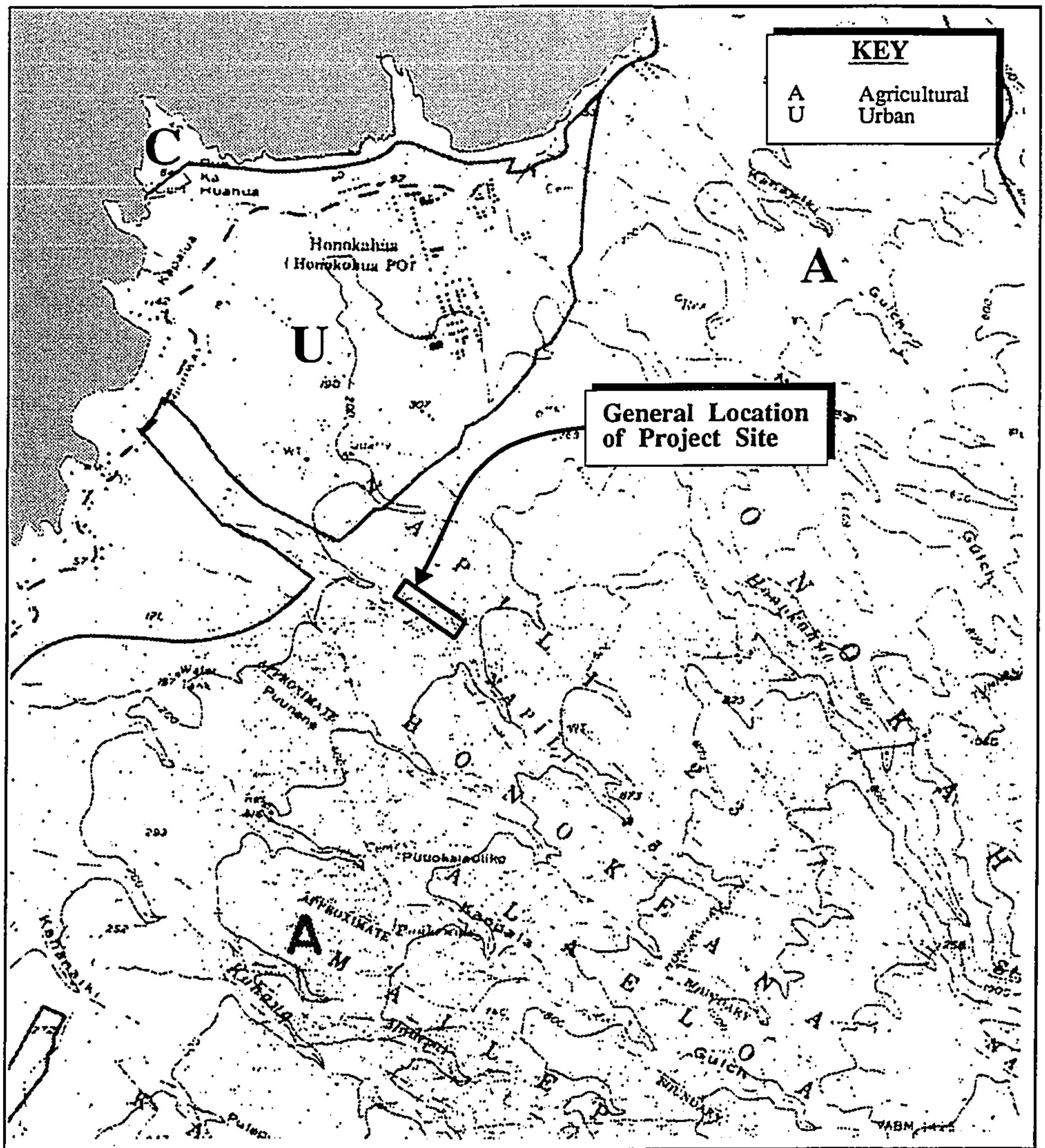


Figure 9

Overhead Primary Line Extension-Feeder "B"

State Land Use District Classifications

1000 4000
0 Feet
2000

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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 falls within the jurisdiction of the Lahaina Community Plan, adopted in 1983. Maps are included within each Community Plan in order to capture spatially the intent of the plan. The project site is designated "Open Space" and "Agriculture" by the Lahaina Community Plan Land Use Map. See Figure 10. The proposed project maintains the drainageway reserve and natural resource features consistent with the "Open Space" designation. A small portion of the project is also designated "Agriculture" which may also include lands which are surrounded by or contiguous to lands in agricultural production.

D. ***COASTAL ZONE MANAGEMENT (CZM) PROGRAM***

The Coastal Zone Management Program (HRS, Chapter 205A) is a comprehensive statement describing the objectives and policies for regulating public and private uses in the coastal zone management area. The CZM area is defined as "the waters from the shoreline to the seaward limit of the state's jurisdiction and all land areas excluding those lands designated as state forest reserves" (HRS Supp., Section 205A-1). The Hawaii CZM program is approved by the Federal government pursuant to Public Law No. 92-583.

The objectives of the Hawaii CZM program are as follows:

A. Provide coastal recreational opportunities accessible to the public;

B. 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;

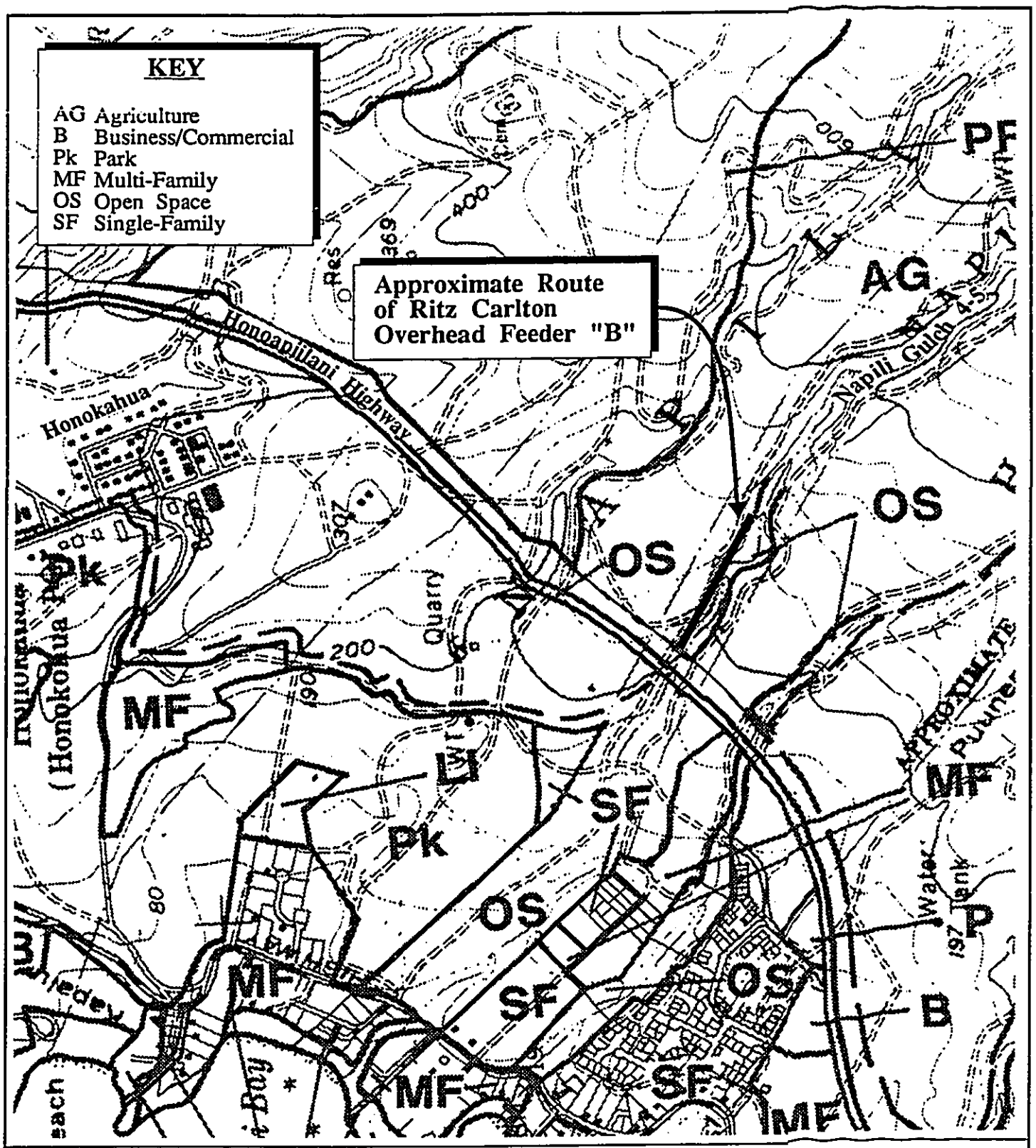

Figure 10 Overhead Primary Line Extension-Feeder "B"

Community Plan Land Use Designations

500 2000

0 Feet

1000

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

D. Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems;

E. Provide public or private facilities and improvements important to the state's economy in suitable locations;

F. Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, and subsidence; and

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

The proposed project is in keeping with the foregoing objectives.

The County of Maui's Special Management Area (SMA) permit procedures have been established within the framework of the CZM program. The subject parcel is not within the County SMA boundaries.

Chapter V

Findings and Conclusion

V. FINDINGS AND CONCLUSION

The proposed project, which involves the erection of approximately 1,100 feet of overhead electrical distribution feeder line from the Napili Substation to Honoapiilani Highway, will not have a significant adverse impact upon the environment. There are no rare/threatened species of flora and fauna at the site. Ambient air and noise characteristics, as well as scenic and open space resources, are not anticipated to be significantly affected by the proposed project.

A portion of the project site includes the remains of a historic plantation road built prior to 1935. The road remains have been filled with dirt and currently appear to be in use as an equestrian trail. The proposed poles and anchors will be located to avoid disturbance to the road remains. During installation of the poles, equipment and vehicles will also avoid the road remains and equestrian trail.

In terms of short-term construction-related impacts and long-term impacts, the project should not result in adverse impacts to adjacent and downstream properties.

No additional employees are anticipated as a result of the proposed project. Thus, impacts upon public services and infrastructure are negligible.

In light of the foregoing findings, it is concluded that the proposed action will not result in any significant impacts. Accordingly, this Final Environmental Assessment is being filed as a Negative Declaration pursuant to Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement Rules.

Chapter VI

Agencies Contacted in the Preparation of the Environmental Assessment

VI. AGENCIES CONTACTED IN THE PREPARATION OF THE ENVIRONMENTAL ASSESSMENT

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

1. Department of Land and Natural Resources
   Historic Preservation Division

2. Department of Transportation
   Highways Division

3. Maui Land and Pineapple Company

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Appendix A

ASC92-8

ARCHAEOLOGICAL INVENTORY SURVEY OF THE OVERHEAD PRIMARY LINE EXTENSION FOR RITZ-CARLTON OVERHEAD FEEDER "B" NAPILI, LAHAINA, MAUI ISLAND (TMK 4-2-01)

by

Aki Sinoto

and

Jeffrey Pantaleo, M.A.

for

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August 1992

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Honolulu, Hawai'i 96826

INTRODUCTION

At the request of Michael T. Munekiyo Consulting, Inc., Aki Sinoto Consulting of Honolulu, Hawai'i, conducted an archaeological inventory survey of the proposed Overhead Primary Line Extension-Ritz Carlton Overhead Feeder "B" transmission line corridor in Napili, Lahaina, Maui Island (TMK 4-2-01:por 6) (Fig. 1). The 4058 ft. (1236.8 m) long overhead primary line extension starts at the Maui Electric Napili Substation 29 and runs *makai* to Honoapiilani Highway, turns north along the *mauka* shoulder of the highway, and then turns *makai* to cross the highway and into the Ritz-Carlton Hotel complex. Although the total length of the overhead primary line extension is 4058 ft., only the initial 1613 ft. (491.6 m) segment along an unimproved gulch edge from Napili Substation 29 to Honoapiilani Highway required intensive survey, since the new pole and anchor line locations along Honoapiilani Highway will not impact previously undisturbed areas. The survey involved walking systematic transects along the northern side of the Napili 4 and 5 Gulch and a visual inspection of the rest of the transmission alignment. The survey was completed on Wednesday, June 17, 1992, by Aki Sinoto and Jeffrey Pantaleo.

PROJECT AREA

The project area is a 80 by 1613 ft. (24.4 by 491.6 m) corridor bounded by Napili 4 and 5 Gulch to the south, Honoapiilani Highway to the west, a pineapple road to the north, and Napili Substation 29 to the east. An existing powerline is located along the southern edge of the Napili 4 and 5 Gulch. The proposed power line extension will run along the northern edge of this gulch.

ENVIRONMENT

The elevation of the project area ranges from 120 to 200 ft (36.5 to 60.9 m) above sea level. Annual rainfall averages 20 to 30" (0.48 to 0.72 m), with most of the precipitation occurring during the winter months between December and March.

Vegetation in the project area is dominated by *koa haole* (*Leucaena glauca*) and various dry grasses, with isolated stands of mango (*Mangifera indica*) and Cook Pine (*Araucaria columnaris*).

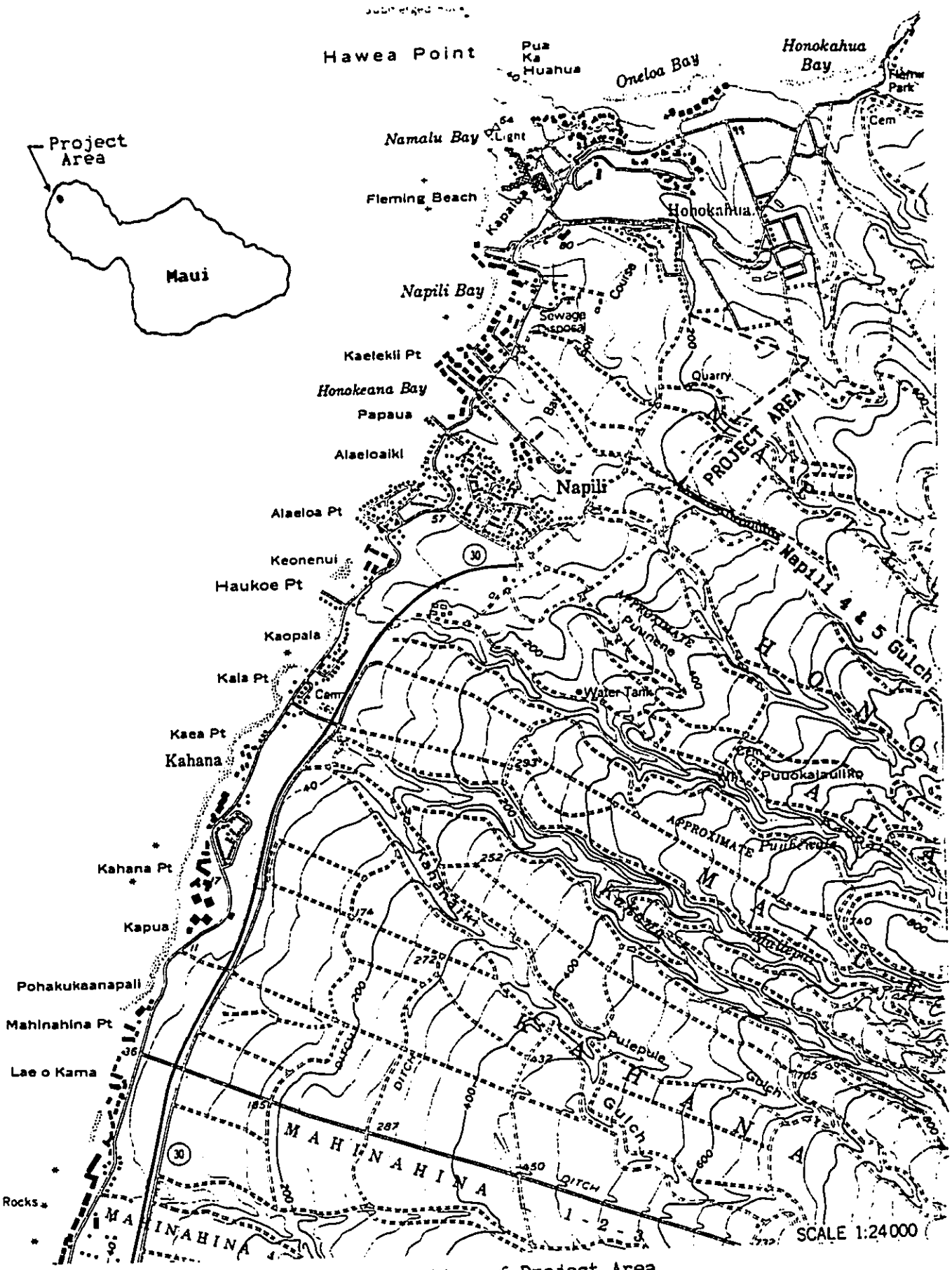


Figure 1. Location of Project Area

Soil in the project area is classified as Waiakoa Silty Clay Loam, a well-drained soil on low uplands that have a moderately fine textured subsoil. These soils, occurring on gently sloping to moderately steep areas, are used for sugar cane, pasture, home sites, and wildlife habitats.

LAND USE HISTORY

Examination of historical records and documents at the State Department of Land and Natural Resources in Honolulu revealed no Land Commission Awards or Grants issued within the project area.

During the 1850's, the drier, leeward areas in West Maui were primarily used for cattle ranching. By 1915, sugar cane and pineapple were extensively cultivated in West Maui for cash crops. In order to irrigate areas of West Maui, the Honolua ditch was constructed by the Maui Land and Pineapple Co. This ditch crosses the Napili 4 and 5 Gulch at approximately the 800 ft. elevation, well beyond the *mauka* boundary of the project area. Currently, the Maui Land and Pineapple Co., Inc. still occupies the Napili area for sugar cane and pineapple cultivation.

Documentary and informant data provided by the Maui Land and Pineapple Company, Inc., indicate the Napili area to have been extensively cultivated in sugar cane and pineapple for over 50 years. Historic period maps show a plantation road that crosses through the project area (Fig. 2). According to residents who lived and worked in the area, this concrete-lined road was constructed prior to 1935 and used to transport workers from Kapalua camps to the sugar cane and pineapple fields (Messrs. Yutaka and Wesley Nohara, Personal Communication).

Further research conducted at the offices of the Maui Historical Society did not result in any new information regarding specifics in the project area.

SITE EXPECTABILITY

Recent synthetic works suggest early settlements on Maui Island occurring between A.D. 300-600 in the windward and coastal areas, with population expansion into the dry leeward areas by A.D. 1000 (Kirch, 1979). In West Maui, Kirch (1973) conducted excavations at Site 50-Ma-D13-1, a small fishing camp at Havea Point. Radiocarbon dates obtained indicated that this site was used during the sixteenth and seventeenth centuries. Griffin and Lovelace

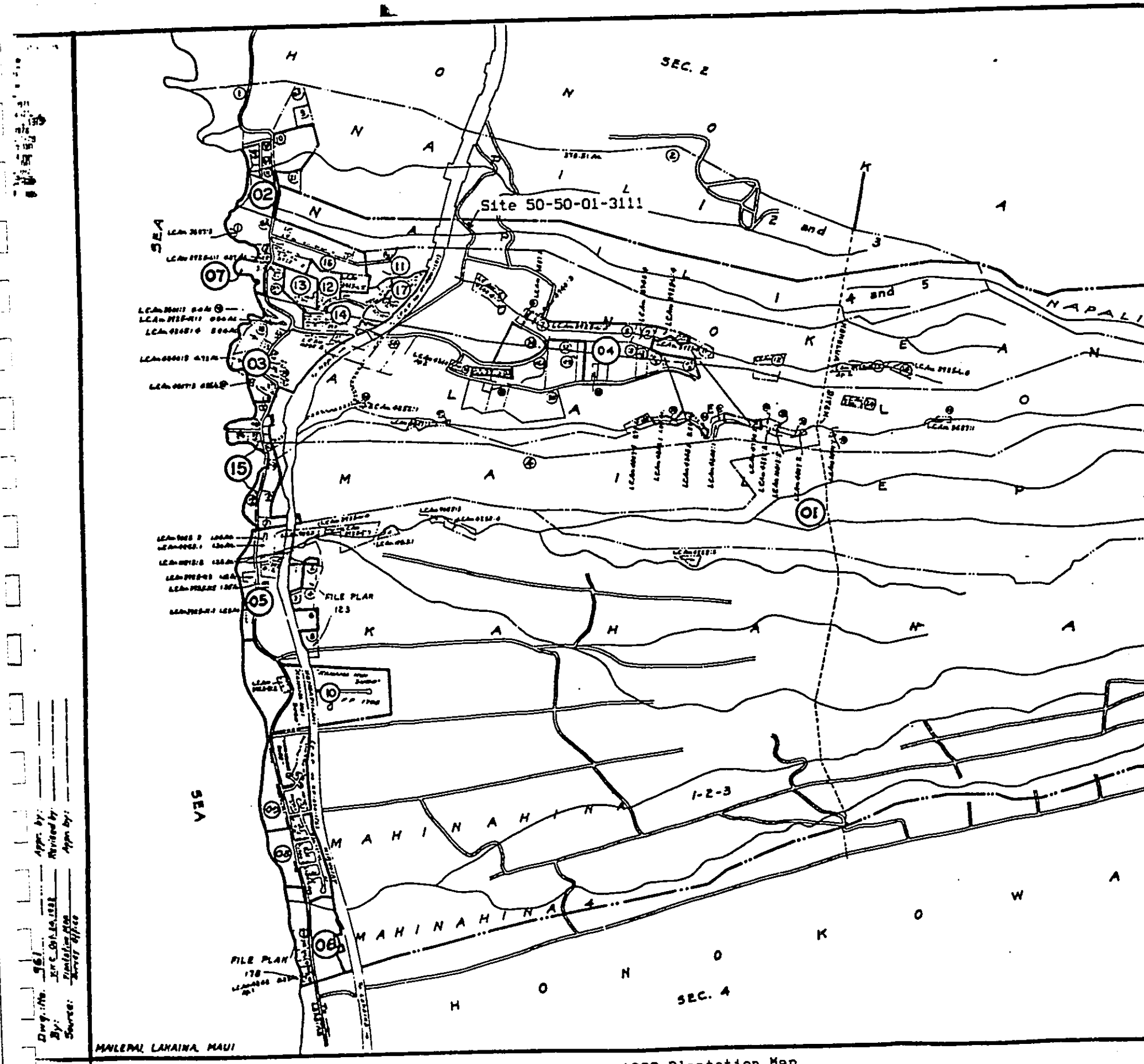
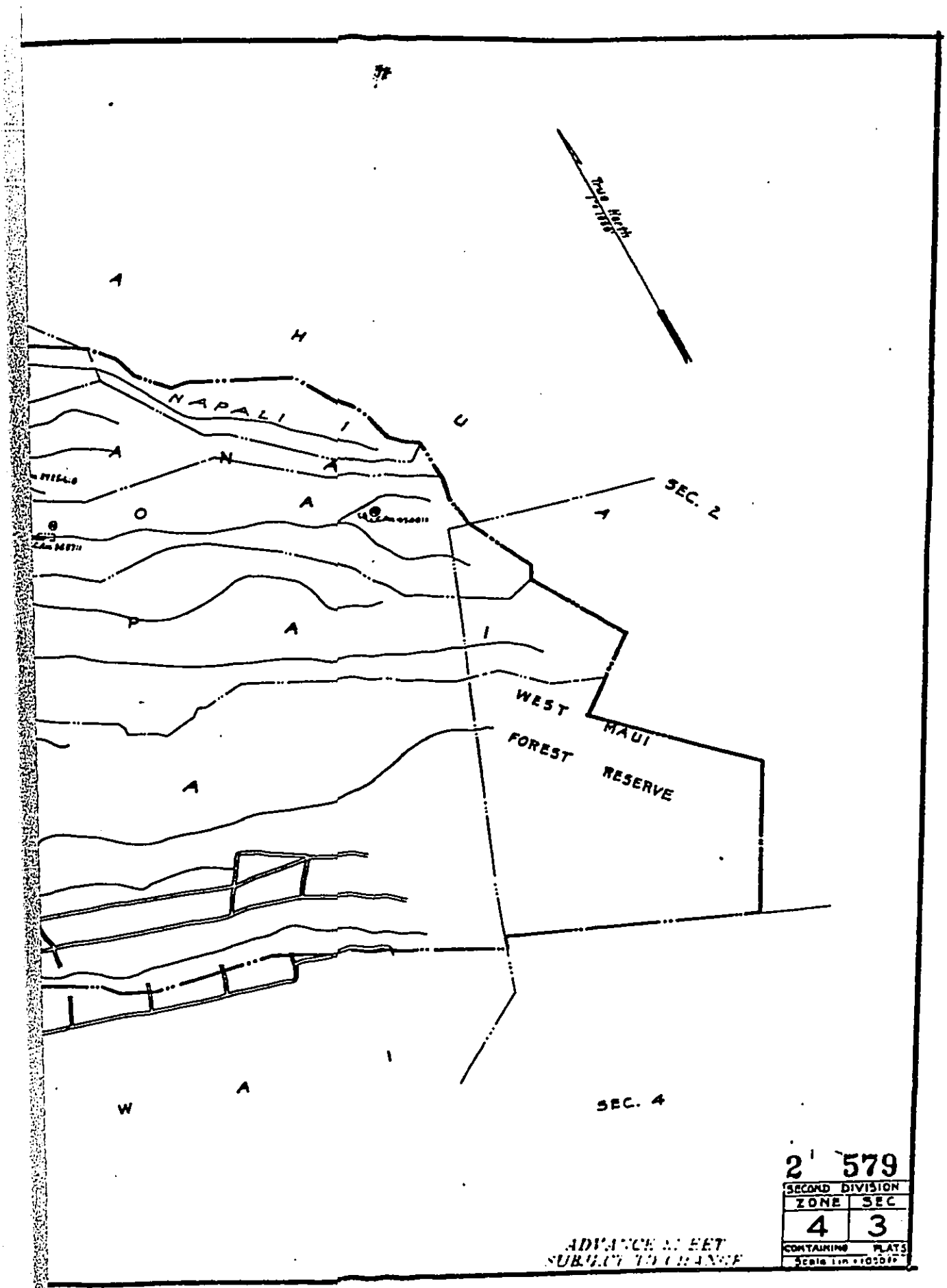


Figure 2. Road Shown on Tax Map Based on 1932 Plantation Map


NAPALI
WEST
MAUI
FOREST
RESERVE
SEC. 2
SEC. 4
2' 579
SECOND DIVISION
ZONE
SEC
4
3
CONTAINING
PLATS

(1977) obtained a thirteenth century date for a temporary habitation site from excavations of a buried cultural deposit in Mahinahina Gulch.

The later prehistoric expansion into harsher or more ecologically marginal regions, as postulated by Kirch (1970), took place in order to broaden the range of resource exploitation. The minimal archaeological data available for West Maui suggests that early inhabitants utilized coastal areas for habitation and marine resource exploitation, areas alongside of streams were utilized for irrigated agriculture on the coast as well as inland in the larger gulches, and the inland plateaus were utilized for dry land or *kula* agriculture.

The project area is located almost a mile inland from the coast. Remains of temporary habitation and agricultural sites, including overhang shelters, C-shaped structures, trails, mounds, walls, terraces, and burials may be present. Historic period remains reflecting ranching, sugar, and pineapple industries; including walls, roads, and irrigation systems can be expected. Since the portion of the Napili 4 and 5 Gulch within the current study area is relatively narrow and shallow, prehistoric habitation in this gulch doesn't appear to be likely.

PREVIOUS ARCHAEOLOGY

No previous archaeological investigations have been conducted in the project area. A literature search at the Historic Preservation Division library at the State Department of Land and Natural Resources in Honolulu determined that several archaeological studies have been undertaken in the general vicinity.

Kennedy (1990) conducted an archaeological inventory survey for TMK 4-3-02:68 and 69 in Napili, Lahaina, Island of Maui. Results of the inventory survey were negative. Document research indicated that no Land Commission Awards or Grants were awarded in the project area. In 1974, Kashko recorded Site 1750, a walled structure, located near Kennedy's project area in Napili Gulch. No remains of Site 1750 were found during Kennedy's survey, and he thus concluded that this site may have been destroyed by flooding activities.

Kennedy (1989) conducted an archaeological inventory survey for the proposed Napili fire station (TMK 4-3-01:por 01). Results of the inventory survey were negative. Since the project area was previously disturbed by bulldozing activities, no additional archaeological work was recommended.

Tourtellotte (1988) conducted an archaeological inspection for Rainbow Ranch (TMK 4-1-33:por 1). Results of the survey were negative. The project area, previously cultivated for sugar cane, is located on a ridge between two gulches.

Griffin and Lovelace (1977) conducted an archaeological survey and excavation for the Honoapiilani Highway. Results of the survey identified four archaeological sites (215, 216, 225, and 227) along the highway corridor. Site 215, a trail, is located on the north ridge of Ka'upala Gulch; Site 216, an *ahupua'a* boundary wall, divides Kahana and Mailepai *ahupua'a*; Site 225 (formerly Sites 217 and 218) is a temporary habitation site identified by a buried cultural deposit (midden); and 227 is a historic wall. Salvage excavation work was conducted at Site 225, a cultural deposit. The excavations at Site 225 recovered marine shell, charcoal, and prehistoric and historic artifacts.

Kashko (1974) conducted an archaeological walk-through survey of specified areas for the Waikulu Flood Prevention project and the Honolua Water Shed project. Several archaeological sites were identified, including Site 1750, a walled structure located in Napili Gulch. Later archaeological work by Kennedy (1990) was unable to locate site 1750 and reported the site as destroyed.

RESULTS OF SURVEY

No prehistoric remains are located within the project area or in any immediately adjoining areas. The secondary vegetation, boulder scatters, and modified areas in the gulch indicate long term disturbance resulting primarily from agriculture related activities spanning historic through modern eras.

The remains of a historic plantation road (Site 50-50-01-3111) built prior to 1935, crosses the Napili 4 and 5 Gulch within the project area (Fig. 3). This road was used to transport workers from Kapalua camps to the fields. The road surface is cement and the retaining walls are constructed of cleaved basalt slabs. The existing road segment spans the Napili 4 and 5 Gulch by roughly following the natural contour to the base of the gulch from both gulch sides. Continuous sugar cane cultivation have obliterated this road where it crossed through the fields on the plateaus on either side of the gulch. The road, approximately 2-3 meters wide, was cut into the gulch sides and dry masonry retaining walls were constructed to prevent erosion. The walls are graduated according to the height of the cuts and measure approximately 0.20 to 0.70 m high on the north ridge and 0.50 to 1.0 m high on the south ridge. A culvert, constructed of concrete and basalt slabs, is located in the gulch floor where the road crosses. The roadway is presently covered with soil and used as an equestrian trail. The plateau areas surrounding the gulch is presently still under pineapple cultivation.

DISCUSSION

Although the absence of prehistoric remains and the paucity of archaeological remains in general may be attributed to the compounded effects of extensive agricultural activities in the current project area, other archaeological investigations conducted in inland areas of West Maui have resulted in a similar paucity of remains. This suggests that the dry, intermediate area between the coast and the higher uplands was not extensively used prehistorically. The potential for subsurface remains is therefore extremely low.

Initially, based solely on surface assessment, the historic road feature was interpreted as an abandoned irrigation ditch in view of its structural characteristics, construction closely following a contour, and the culvert feature at the gulch bottom. However, the available data; including those provided by the Maui Land and Pineapple Company, Inc., and informants familiar with the area and plantation operations; all indicate that Site 50-50-01-3111 located in the Napili 4 and 5 Gulch is the remains of a historic plantation road. One of a network of similar roads that was in use during the 1930's to transport workers from Kapalua camps to the sugar cane and pineapple fields.

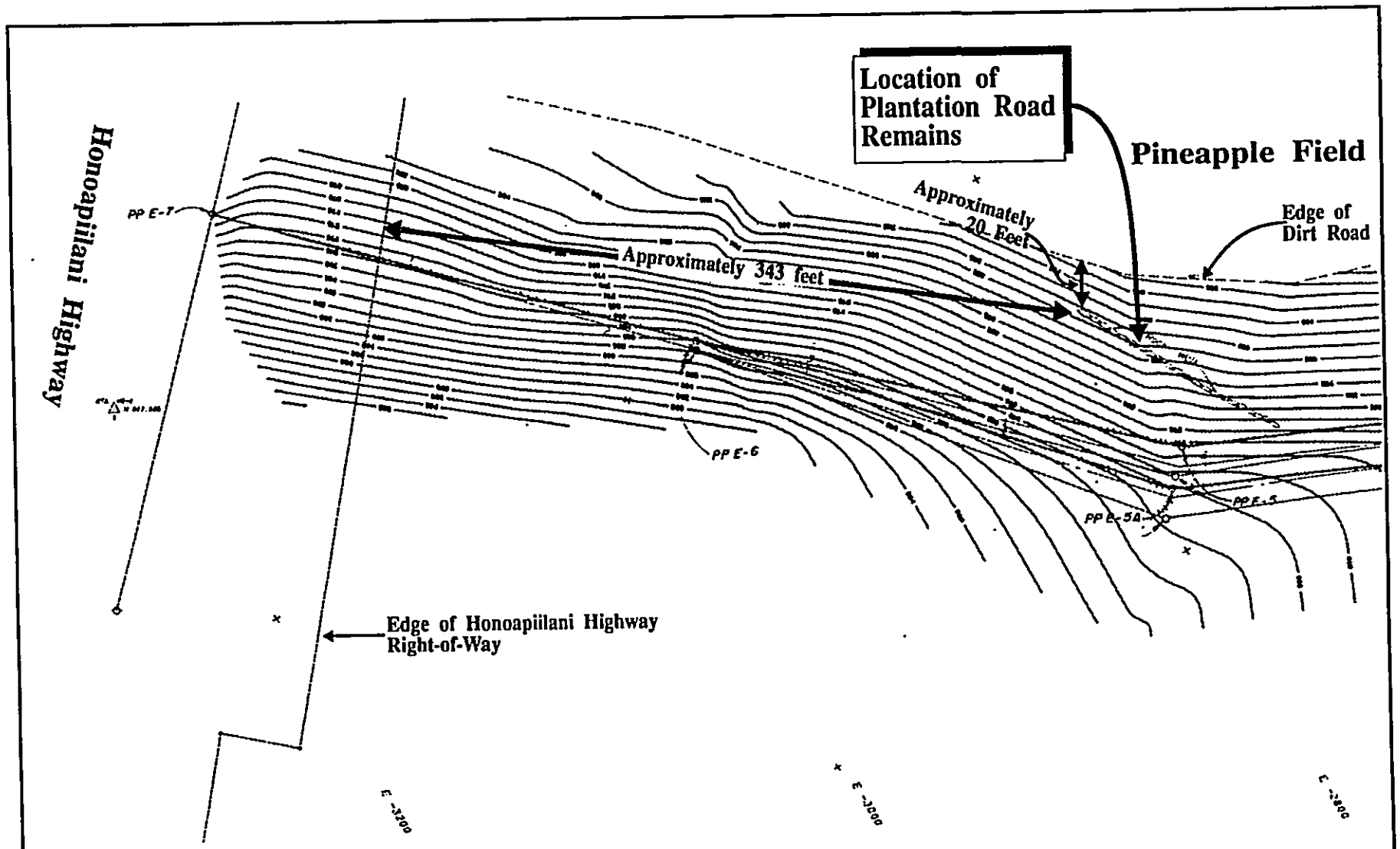


Figure 3 Overhead Primary Line Extension-Feeder "B"
Location of Plantation Road Remains

NOT TO SCALE

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Prepared for: Maui Electric Company, Ltd.

Site 50-50-01-3111 is considered significant under multiple criteria of the National Register Significance Evaluation Criteria. Criterion A specifies association with events or broad patterns important in the history of an area. (The development of historic period agriculture in West Maui.) Criterion C refers to distinctive architecture characteristic of a type, period, or method of construction or presenting the work of a master, or possessing high artistic value. (The construction technique of utilizing cleaved stone was introduced to Hawaii by immigrant ethnic groups.) Criterion D states that a site has yielded or has the potential to yield information significant for the understanding of traditional culture and history of an area or region. (Generally applicable for all archaeological sites.)

RECOMMENDATIONS

Due to the negative results of the survey, no further archaeological work is recommended prior to commencement of transmission-line installation activities. *In situ* preservation and avoidance of Site 50-50-01-3111, the historic plantation road is recommended. Therefore, the proposed location for Pole E5A and associated anchors should be revised to prevent adverse impact to the road and retaining wall. Also during the installation of other poles, care should be exercised to avoid disturbing the structural features.

If any unanticipated remains are exposed during construction, all activities in the immediate area should be halted and Ms. Theresa Donham, Maui resident archaeologist, or Mrs. Annie Griffin, O'ahu staff archaeologist in charge of Maui County for the Historic Preservation Division, State Department of Land and Natural Resources, should be notified at 572-2314 (Maui) and 587-0014 (O'ahu).

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